

## DANE COUNTY LAKES & WATERSHED COMMISSION 2024 BUDGET RECOMMENDATIONS

The Dane County Lakes and Watershed Commission's charge is to protect and improve water quality and the scenic, economic, recreational, and environmental value of Dane County's water resources. We enjoy boating, fishing and paddling on the 69 lakes and ponds and the 52 rivers and streams. In addition to recreational activities, our waters also support industry and agriculture. Our groundwater resources are critically important for the approximately 550,000 residents who depend on it for **clean** drinking water. The Dane County Lakes and Watershed Commission (LWC) recommends the following investments be part of the 2024 Dane County Budget. These investments build on current programs and leverage contributions of partners, including our cities, villages, and towns; the Madison Metropolitan Sewerage District; other private sector land and water managers; citizen volunteers; and others.

### NEW INITIATIVES FOR 2024

**Expanded Beach Health Monitoring, Education and Public Notification.** Public Health Madison and Dane County (PHMDC) monitors our lakes and shoreline waters for high levels of pathogenic bacteria (*E. coli* and *Salmonella*) and blue green algae (*Cyanobacteria*) so that beaches can be closed when unsafe levels of these organisms are present. Cyanobacteria produce multiple toxins which are highly toxic to humans and pets. *E. coli* and *Salmonella* cause intestinal infections which vary from very mild to life threatening. Children and the elderly are especially vulnerable. Cyanobacteria are naturally present in the water and soil. *E. coli* and *Salmonella* enter our streams and lakes through runoff containing animal waste. These outbreaks occur as a result of heavy rainfall or high temperatures and require more frequent sampling to ensure that the public is properly notified. ***The LWC recommends that the county (either alone or in partnership with appropriate municipalities) allocate additional LTE funding for staff to increase the frequency of sampling necessitated by changing weather patterns. Equally important is rapid publication of PHMDC health advisories about water. This can be achieved by the purchase and installation of electronic message boards at area beaches, which can be updated by remotely. The LWC also recommends that the county purchase a commercial dishwasher for PHMDC staff who conduct the testing.***

**Enhancing Stormwater Management Ordinances with a Fee-in-lieu program.** The LWC/LWRD is currently developing a county-wide stormwater volume trading/fee in-lieu program feasibility report which will evaluate the successful implementation of similar programs in other municipalities, as well as identify recent stormwater management permits that have been issued by Dane County with exemptions from infiltration standards. The exemptions will then be used to estimate past yearly stormwater volumes that would have been eligible for a stormwater volume trading/fee-in-lieu program. The report is expected to be complete by April 15th, 2024 and will inform the Department and Commission of projected future volume demands based on past need, as well as the cost of implementing and administering a stormwater volume trading and fee-in-lieu program.

**PFAS Testing.** Per- and polyfluoroalkyl substances (PFAS) are a human-made contaminant as they are harmful "forever chemicals" that build up in the body and environment over time and have serious health effects. Because of SIGNIFICANT health risks associated with PFAS, it is IMPERATIVE THAT BOTH PUBLIC HEALTH AND ENVIRONMENTAL officials have a good understanding of how wide-spread PFAS contamination is of both surface and groundwater throughout the county. Recommendations for PFAS awareness and interdiction will vary depending on the source and location of the contaminant.

The LWC recommends continued support for County related PFAS activities such as funding for increased testing of sediment and fish in Starkweather Creek and other surface waters. **EQUALLY IMPORTANT** is the engagement and education of the communities affected by PFAS contamination. The WDNR advises limiting consumption of fish caught in the waters of the Yahara Chain from Starkweather Creek downstream to the Rock River. Prioritization should be given to messaging and signage targeting areas that are heavily fished with all public outreach materials provided in multiple languages (English, Spanish, and Hmong).

***As a new effort the LWC recommends the county sample all wells located in county parks and groundwater around landfills for PFAS contamination. This will provide data to assess how widespread PFAS contamination is throughout the county.***

*Private well owners should also be encouraged to have their well water tested through an educational campaign and informed of possible reimbursements for testing and remediation. Efforts should be made to further reduce the cost of well water testing. Well owners should also be encouraged to notify PHMDC of their results for inclusion in a county-wide map of PFAS contamination of groundwater.*

## CONTINUED SUPPORT OF ONGOING ISSUES

**Flooding Issues.** The Lakes and Watershed Commission asks that the county continue to address flooding of the Yahara chain of Lakes by:

1. *Continue to provide the funding needed to operate and maintain the county purchased dredging equipment.*
2. *Continue funding at current levels (\$1,600,000) Aquatic Plant Cutting in the Yahara River Chain-of-Lakes. This effort increases water flow, which in turn allows better management of lake levels, especially during high water events. Additionally, aquatic plant management supports outdoor recreation for local and regional users of the lakes and helps minimize losses of water-based economic activity. Management is also needed to provide adequate access to the lake by riparians and other users.*
3. *Continue ongoing communication with the HoChunk Nation to ensure transparency regarding impacts of dredging on the Yahara River fish weir and appropriate ways to mitigate any impacts and engage in discussions on building resilience within the Yahara River to reduce and eliminate the need for future dredging.*
4. *Continue to implement strategies to improve resiliency in the wake of increased flooding risks.*
5. *The Lakes and Watershed Commission requests that the data received from GPS aboard the harvesters and barges be available in real time on the Land and Water Resources website. This will benefit lake users by keeping them informed of potential hazards. Allocate up to \$3,000 for this project.*

**Lake Safety.** The Dane County Sheriff's office provides deputies to patrol the lakes, enforce safe boating regulations, and respond to emergencies. The LWC recommends:

1. *Continued funding of Lake Patrols from May 15th to September 15th to reduce response time to emergencies and to enforce no-wake zones and no-wake periods. Patrols should be on each of the four lakes during weekends and holidays.*
2. *Funding the Capital Request of the Marine and Trail Enforcement Bureau of the Dane County Sheriff's Department for Dive Team Equipment.*

**SUPPORT FOR COUNTY INVESTMENTS IN WATER RESOURCE MANAGEMENT.** Water resource management requires investment from county Departments and staff with diverse areas of expertise and authorities, as well as investment from Dane County citizens that are providing leadership throughout the county.

1. **Maintain Funding for Other Operating Costs, such as gasoline and parts for equipment maintenance.** Aquatic plant harvesting is one effort that suffers significantly when gasoline or replacement parts are not available. Like the need for appropriately trained dedicated staff, these supplies are critical to improving water quality as well as maintaining target lake levels.
2. **Continue to Support the Yahara "CLEAN" Compact (Renew the Blue).** The Yahara CLEAN Compact seeks to renew and strengthen a community partnership to clean up our lakes and meet their designated uses and benefits under the Clean Water Act.
3. **Fish, Crystal, & Mud Lakes District.** The water levels of the three lakes has fluctuated over the past 100 years, but recently have risen significantly. Crystal Lake has come up over 7 feet while Fish & Mud Lakes are up over 12 feet. At

these high levels Crystal, can overflow into Fish Lake. The County led technical report identified several possible actions. The LWC recommends allocating \$10,000 to assist in pumping costs for Crystal Lake until a decision is made on what actions should be taken.

**INITIATIVES TO REDUCE PHOSPHORUS POLLUTION.** In 2020, 46 bodies of water in Dane County did not meet water quality standards because of phosphorus pollution. Excess phosphorus, largely from nonpoint runoff, is recognized as the primary pollutant. Wisconsin is one of the first states to have a numeric phosphorus water quality standard for lakes and streams and is the only state to include an innovative, regulatory compliance option, called Watershed Adaptive Management. This law allows regulated wastewater point sources (Madison Metropolitan Sewerage District, MMSD) to work with nonpoint sources (agricultural producers, municipal storm water utilities, etc.) on cost effective strategies that target phosphorus reduction while achieving water quality criteria. One of the first adaptive management projects in the nation, called Yahara WINS is being led by MMSD, who has contracted with Dane County (Land and Water Resources Department) to assist rural landowners in implementing conservation practices that reduce phosphorus. In addition, the County's taxpayers have invested in the construction of manure storage facilities, manure digesters, composting and other new technologies to remove phosphorus from manure and stream sediments. We strongly support these ongoing investments, but we must enforce current agricultural performance standards and need conservation efforts to target critical parts of the landscape, where investments in conservation practices will result in verifiable, high levels of soil and nutrient retention. Every pound of phosphorus in our lakes has the capacity to create up to 500 pounds of algae, reducing water quality and the ability to use our lakes for fishing, swimming, and other water recreation.

**A. Continuous Cover Program - Perennial Agriculture Cost Share and Conservation Easement Program.** Cost sharing for conservation programs is typically the amount that is needed to encourage a farmer to install and maintain a conservation practice. This new \$750k conservation program launched in 2019 was designed to complement the "suck the muck" investments to reduce legacy sediments by implementing upstream perennial agriculture practices. Research shows the best performing practice for reducing run-off and improving water quality is maintaining perennial vegetative cover on the land. Along with reduced run-off, perennial vegetation also provides for increased infiltration and improved soil health. The program was very popular and applicants exceeded cost share dollars. This program was also listed as an agricultural recommendation within the 2020 Dane County Climate Action Plan. We have contracted over \$6.5 million for CCP since 2019 covering approximately 2,500 acres. To date we have certified roughly 1,900 acres and paid out over \$4.5 million. Additional CCP projects are planned for this fall and spring of 2024. The LWC recommends:

1. *Expanding this program to \$10 million in capital funds (\$2million/year for 5 years) with the goals of:*
  - a. *Establishing 10,000 acres of perennial vegetation practices in Dane County in five years (native prairies and non-native pastures),*
  - b. *Providing education and technical assistance to land owners (including non-farmer landowners) on ways to integrate perennials (perennial cover crops, prairie strips, harvestable buffers, alley cropping etc.) into farm plans and leases targeting fields that contribute high levels of phosphorus and*
  - c. *Expanding the use of conservation easements. During this period, leases for all county-owned land (purchased via the taxpayer-funded Dane County Conservation fund) which are steep sloped or high in phosphorus have been converted to perennial vegetation. Over time, wherever practical, other county owned lands will be converted to prairie or perennial vegetation. In the Yahara River Watershed, we recommend exploring a matching cost-share program with Yahara WINS for perennial establishment and integrating it into their adaptive management program.*

**B. Continue to partner with the University of Wisconsin to predict and validate phosphorus reductions.** Dane County is partnering with researchers in the UW-Madison College of Agricultural and Life Sciences who were awarded a grant in 2018 to establish the UW LandLab, whose mission is to identify science based solutions and improve phosphorus reduction outcomes. This work will be expanded in 2019 with \$10 million in support from USDA for Grassland 2.0 whose goal is to engage in the local watersheds to develop greater supply and demand for grass-fed livestock and technical and financial tools for grass-based farming enterprises. **The LWC recommends that Dane County Land and Water Resources Department continue to collaborate with UW researchers, and look for ways to expand grass based ideas in MMSD's adaptive management implementation efforts and to annually present to LWC, EANR, and LCC its strategy for implementing phosphorus reductions.**

**D. Improve Nutrient Management Planning, Compliance and Phosphorus Accounting.** Because clean lakes and streams and safe drinking water are important to all, the State of Wisconsin, with the support of farm organizations, adopted minimum agriculture performance standards, including mandatory nutrient management (NM) plans, for all Wisconsin farms. Counties are responsible for implementing state farm conservation and NM standards. Improved nutrient management and conservation compliance could significantly reduce phosphorus and we should continue to work to get additional farms implementing NM plans. ***The LWC recommends continued support of Nutrient Management Plan farmer training and cost share assistance and continued tracking of nutrient management plan implementation.***

**INITIATIVES TO REDUCE CHLORIDE POLLUTION.** Average annual chloride levels in groundwater have increased rapidly in the last 20 years. Today, thanks in part to the work of the multi-agency Wisconsin Salt Wise partners (<https://www.wisaltwise.com>), there is expanded public awareness that salt use applied to roadways, parking lots, sidewalks and driveways and inefficient water softeners have markedly increased chloride levels in area lakes, creeks, marshes and groundwater. Strengthening the message and continuing to educate salt applicators can have significant impacts on reducing chloride pollution. ***The LWC recommends continued support for certification and training through the City of Madison's certification program for winter maintenance of parking lots and sidewalks and improvement in the county's own organizational practices, including the good work being done by Dane County Highway and Transportation and Dane County Facilities management to reduce salt and deicers, including upgrading water softeners in county facilities.***

**ENHANCED COMMUNITY OUTREACH AND EDUCATION INITIATIVES.** The Lakes and Watershed Commission supports the following investments to maintain community engagement in water stewardship.

**A. Continued County Investment in the Land and Water Resources Department.** Dane County's investment in watershed leaders through the Dane County Watershed Network and volunteer engagement has paid great dividends, increasing awareness and focus of the role of watershed organizations in addressing clean water goals. ***The LWC recommends continued county investment in the Watershed Management Coordinator, Strategic Engagement Coordinator and the Stormwater Education Coordinator positions.***

**B. Educating and Diversifying Youth.** The ~~Outdoor Explorers~~ *Bayview Lake/Science Program* takes place during Bayview's eight week Summer Camp. Overarching goals for the program include 1) increased connection to, and stewardship of, the park system and the natural environment as a whole, 2) Improved science education through lesson and experiments about local lake ecosystems, parks, and other natural areas, 3) Increased appreciation of lakes and understanding of issues such as water quality, conservation. And supply, 4) Increased access to and instruction in open water recreation and safety, 5) Encouraging curiosity and feelings of joy about the natural world and especially Dane County lakes and parks. ***The LWC recommends maintaining \$15,300 in funding, and increasing Funding to \$20,000, to enable more diverse and/or low-income youth to participate in the Bayview Lake/Science Program.***

**Urban Water Quality Grant Program.** Since 2005, Dane County has provided over \$7.5 million in cost-sharing funds to municipalities via the Urban Water Quality Grants (UWQG) for re-construction of stormwater outfalls and other projects. To strengthen this program, LWC recommends that *the Land and Water Resources Department continue to prepare and present a written annual report on the UWQG to the LWC and the general public to document projects funded and progress toward water quality improvement goals and review and amend as needed the eligibility criteria used in awarding funds.*