

DANE COUNTY LAKES & WATERSHED COMMISSION

2017 BUDGET RECOMMENDATIONS

The Dane County Lakes and Watershed Commission's charge is to protect and improve water quality, as well as the scenic, economic, recreational, and environmental value of Dane County's water resources. Each year, by state statute, the Lakes and Watershed Commission carefully reviews the budget requests of those departments and divisions (the Department of Land and Water Resources, the Sheriff's Department, the Department of Public Health, and Dane County UW-Extension) that are engaged in water body protection and improvement, considers the cost-effective ways to protect and restore our watersheds, and makes recommendations to inform the County Executive's proposed budget.

OVERVIEW

Dane County has an amazing resource in its lakes, rivers, and streams, which provide quality of life for all residents and are a foundation for our economy. We are fortunate to have abundant water resources in our region. Lakes and rivers are where we spend time with family and friends, boat, fish, paddle, and simply enjoy nature. Most importantly, our groundwater is a source of safe drinking water for the approximately 500,000 residents of the county. Minimal expense is needed to provide safe drinking water because of the essentially unpolluted nature of our groundwater. In addition to recreational activities that contribute significantly to the economic well being of Dane County, our waters support industry and agriculture. Agriculture provides 17,294 jobs in Dane County, accounting for \$3.4 billion in business sales, and contributes \$1.3 billion to county income¹.

More than attracting money to Dane County, our waters attract the talent that runs our economy; studies show young entrepreneurs value accessible natural resources as one of the top qualities they look for when choosing a location to start their careers and/or businesses. In a recent national study by the American Sustainable Business Council, 71% of small businesses owners believe that "strong clean water protections are necessary to maintain a healthy economy and create local jobs²." While healthy lakes and streams require investment, that investment helps secure a tax base that provides for other community needs.

The Dane County Lakes and Watershed Commission (LWC) acknowledges the economic realities that must be balanced with effective funding. The LWC has identified several key goals to guide its specific budget recommendations. These goals are:

- Reduce excess phosphorus, nitrogen, chlorides, and dissolved solids in our lakes, rivers, streams, and groundwater
- Prevent the introduction of new invasive species into our lakes, rivers, and streams and prevent the spread of current invasive species,
- Meet all regulatory responsibilities including county ordinances and state and federally mandated water quality guidelines;
- Engage citizens to address the use, quality, and safety issues associated with Dane County waters;
- Encourage sound scientific studies of water quality and use issues; and
- Provide the required resources for safety on and near surface water.

¹ Dane County Agriculture: Value & Economic Impact 2014. University of Wisconsin - Extension, Wisconsin Milk Marketing Board, and Wisconsin Department of Agriculture, Trade and Consumer Protection.

² American Sustainable Business Council, 2014. Small Business Owners Favor Regulations to Protect Clean Water

SPECIFIC BUDGET RECOMMENDATIONS

I. Initiatives to Reduce Phosphorus Pollution

The Clean Lakes Alliance and the Dane County Lakes and Watershed Commission propose a coordinated strategy to address our phosphorus problem. Dane County must play a leadership role; but other players, including the Clean Lakes Alliance and the Yahara WINs project, led by the Madison Metropolitan Sewerage District, can help (WINs refers to Watershed Improvement Network). This strategy will build upon current programs, and will help to align a wide range of community efforts.

Dane County has nearly 40 lakes, rivers, and streams that are polluted enough that they do not support their designated uses. Excess phosphorus is the primary pollutant in many of these public waters. Dane County is working with many partners on several fronts to reduce phosphorus levels, including the construction of manure storage facilities, construction of manure digesters, and installation of new technologies to remove phosphorus from manure. Almost 50% of annual phosphorus runoff that reaches county lakes and waterways comes from the manure that is spread on frozen and/or snow covered fields in January-March³. These improved means of managing and using manure can significantly reduce the levels of phosphorus in the surface waters of Dane County.

The LWC supports another five years of comprehensive investment in Dane County waters - lakes, rivers, wetlands and groundwater, building on the five-year Clear Lakes Initiative. We have been working with the Clean Lakes Alliance, Madison Metropolitan Sewerage District, the University of Wisconsin-Madison and other partners to develop a coordinated strategy to address our phosphorus problem. This strategy will build upon current programs, and will help to align a wide range of community efforts. We recommend incorporating the following financial investments elements into such an initiative.

- A. **Provide cost-share funding for urban runoff control** - Dane County's Urban Water Quality Grant program provides cost-sharing grants to municipalities for construction of best management practices that will provide efficient, cost-effective treatment of urban runoff. This collaborative program with municipalities has been very successful in meeting its goal of improving the quality of urban stormwater runoff entering Dane County lakes, rivers and streams. The Lakes and Watershed Commission supports continuation of this program at the annual level of \$2 million, and carry forward and award of all unspent funds in the program.
1. Increase annual funding to \$2 million for matching grants to municipalities, to promote green infrastructure and improve storm drain outlets that dump untreated storm water and litter into county lakes and streams.
 2. Maintain emphasis on the county's "top ten" problem stormwater outlets by making them eligible for matching grants covering up to 75% of improvement costs with no dollar cap.
 3. Provide a new category of matching grants to municipalities, to fund pilot projects that reduce phosphorus runoff from urban leaves.
 4. Carry forward and award of any unspent funds in the program from previous fiscal years.

³ Lathrop, Richard C. Perspectives on the eutrophication of the Yahara lakes. Lake and Reservoir Management. 2015. 31: 207-227.

- B. Increase public action on urban runoff management** – The Lakes and Watershed Commission and Clean Lakes Alliance jointly recommend working with the Madison Area Metropolitan Stormwater Partnership to form a task force to:
1. Create an integrated 4-year strategy to address urban leaf management to minimize phosphorus runoff.
 2. Recommend a suite of best practices for municipalities and citizens, which could include developing smart technology to let residents know about leaf management, rules and schedules.

Task force members should include the Lakes and Watershed Commission, Clean Lakes Alliance, the Madison Metropolitan Sewerage District, and representatives from the Madison Area Metropolitan Stormwater Partnership, including Dane County. We support continued Dane County investment in the .5 FTE MAMSWaP outreach position. Clean Lakes Alliance will provide additional in-kind staffing to complement the MAMSWaP position.

C. Maintain land and water conservation funding, including farm conservation cost-share

1. Continue investing \$3.4 million annually to protect Dane County lands to improve the water quality of Dane County lakes and their tributaries. These investments should continue to include protection of streambanks through restoration and easements.
2. Continue to provide \$1 million annually in Yahara CLEAN Implementation funds to assist farmers (CLEAN refers to Capital Lakes Environmental Assessment and Needs). This funding complements cost-share funding available through Yahara WINs and helps farmers incorporate conservation practices on Dane County farms outside the Yahara watershed.
3. Establish a carp management fund for use in cost sharing community carp management efforts.

- D. Provide adequate staff resources to manage farm conservation programs with a focus on a) meeting Yahara WINs goals and b) full adoption and implementation of nutrient management plans in the Yahara watershed.** Yahara WINs provides a unifying plan and financial support for phosphorus management efforts in the Yahara watershed and lakes. Dane County's efforts to engage agricultural producers are critical to the success of this plan. Yahara WINs and Clean Lakes Alliance complement Dane County investments by providing critical funding for land and water conservation staff as well as cost-share for farm practices that protect public water resources.

II. Initiatives to Reduce Chloride Pollution

Road salt use has markedly increased chloride levels in area lakes. Local creeks and marshes are strongly affected by seasonal spikes in chloride. Some shallow groundwater has become a chloride sink, slowly releasing elevated chloride to surface waters. Road salt use has also increased sodium and chloride levels in our drinking water. Some estimates show that deicers applied to sidewalks, driveways, and parking lots comprise about one half of the total road salt applied in Dane County -- a substantial part of the total chloride load. Current levels of salt use cannot be sustained without degrading our drinking and surface waters (source: Public Health Madison-Dane County 2015 Road Salt Report).

Wastewater treatment plants must meet the federal Environmental Protection Agency (EPA) limits for the amount of chloride that can be discharged in their effluent. In the last few years MMSD, Sun Prairie, and Mount Horeb wastewater treatment plants all have had occasions where chloride levels were in excess of EPA limits. Sources of chlorides to the MMSD facility include water softener recharge water and salt infiltration from winter maintenance of roads, parking lots, and sidewalks. MMSD undertook a chloride compliance study in 2015, which documented that the net present value of treatment to remove chloride could cost MMSD as much as \$2.3 billion.

The Lakes and Watershed Commission believes that a collaborative approach to reducing chloride pollution reduction, similar to the “all-hands-on-deck” approach to phosphorus, should be expanded to address community concerns about elevated chloride levels in Dane County surface and groundwater.

One of the exciting collaborations underway is the multi-agency Wisconsin Salt Wise outreach campaign (<https://www.wisaltwise.com>). In late 2014 and early 2015, the following partners worked together to create a Wisconsin Salt Wise website and information tailored to several audiences: Madison Metropolitan Sewerage District, Madison Water Utility, Madison – Dane County Public Health, Dane County Office of Lakes and Watersheds (OLW) and its community engagement program, Madison Area Municipal Storm Water Partnership, UW-Madison Environment Health and Safety, and City of Madison Engineering. These partners are also supporting annual winter maintenance training for those who apply de-icers containing chloride to roadways, parking lots, sidewalks and driveways.

The timing is right for increased Dane County leadership and participation in these efforts. We suggest the following Dane County contributions to maintaining and growing community collaborations to address chloride pollution.

A. Development of best practices and associated training for winter maintenance of parking lots, driveways, and sidewalks.

1. Invest \$45,000 to support convening a technical team of local experts and deicing applicators to develop a consensus package of chloride application rates for parking lots, driveways and sidewalks, tailored to Wisconsin conditions, that will use the least amount of salt while ensuring safe conditions on surfaces traveled by pedestrians and vehicles and saving money.
2. Requested funding would be used to contract with a nationally-known chlorides expert, with in-kind support from Dane County staff and other Wisconsin Salt Wise partners. The Lakes and Watershed Commission and Wisconsin Salt Wise will convene the technical team. The resulting best practice application rates would be incorporated into training manual and training materials for Dane County audiences. Project leaders would then hold train the trainer workshop pilot use of these materials, thereby preparing several local trainers who would then offer this training on a regular basis.
3. The resulting application best practices and training materials would be used as the basis for developing a sustainable, self-funded, voluntary salt applicator certification and liability mitigation program modeled on those existing or proposed in New Hampshire and Minnesota (if salt is applied according to the consensus best practices, the applicator would be protected from liability).

B. Maintain, at a minimum, the current OLW staff time focused on chloride reduction

The 2016 Office of Lakes and Watersheds workplan allocates 25% of staff time for chloride reduction initiatives. This level of staff contribution should continue in order to have these efforts be most successful. Dane County is best positioned to maintaining and growing community collaborations to address chloride pollution.

C. Water Softeners

Water softeners discharge chloride, which contributes to rising chloride levels in Dane County surface and ground waters. LWC promotes water softener optimization and replacement for both residential and larger facility water softeners to reduce this source of chlorides to surface and groundwater. The impact can be significant, for example MMSD conducted a study of residential water softeners and found an average of 27 percent reduction in the salt used from optimizing softeners and a 48 percent reduction from replacing softeners. LWC supports Dane County Facilities Management in its work to upgrade water softeners in county

facilities, in order to improve efficiency, save money, use less salt, and reduce the chloride load to MMSD and our waterways.

III. Protecting Dane County Water Resources through Community Engagement

The decisions people make every day ultimately determine whether we have clean water. Helping people be effective water stewards in big and small ways is empowering and more cost effective in the long run. The Lakes and Watershed Commission supports the following investments to expand community engagement in water stewardship.

- A. Continued County Investment in Community Strategic Engagement.** The LWC requests continued county investment in community engagement through the Strategic Engagement Coordinator position in the Office of Lakes and Watersheds, the MAMSWaP position hosted by Water Resources Engineering, and the complementary contributions by the Clean Lakes Alliance. 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 watershed organizations on county clean water goals.
- B. Invest \$10,000 one-time funding to support water quality monitoring by community volunteers and to coordinate monitoring efforts.** Funding would provide equipment, systems and demonstration models for community education. To complement this investment, Clean Lakes Alliance proposes to work with Dane County to enhance and expand citizen monitoring opportunities, allowing citizens to become engaged through action. The initiative would expand monitoring opportunities across Dane County while eliminating duplication and coordinating outreach. Other partners in this effort could include the Department of Natural Resources, Dane County, Yahara WINS, University of Wisconsin Extension, the City of Madison, and Rock River Coalition.
- C. Advise a new Yahara Watershed Academy led by Sustain Dane, Aldo Leopold Nature Center, and Clean Lakes Alliance and provide \$3,500 as scholarship fund to support participation of underrepresented groups of Dane County citizens.** The Watershed Academy will provide training for community leaders working on water quality issues at the neighborhood level. The Nelson Institute for Environmental Studies at the University of Wisconsin-Madison will lead Yahara Watershed Academy, in cooperation with Edgewood College Sustainability Leadership Program, and Madison Metropolitan Sewerage District.

IV. Continued Support for Other County Investments in Water Resource Management

Water resource management is complex. It requires investment from county Departments and staff with diverse areas of expertise and authorities, as well as investment in Dane County citizens that are providing leadership throughout the county.

- A. 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.
- B. Fund the Water-related Budget Requests from the Department of Public Health for Madison and Dane County.** These requests assure that the public is informed when our recreational waters are not safe for swimming, that spills of pollutants are investigated and remediated, and that agencies and the public are informed of chloride usage and effects on surface and ground waters. We strongly support adding funds to support daily monitoring of county beaches for bacteria, cyanotoxins. Prompt detection of hazardous conditions can significantly prevent human and animal illness

- C. **Fund the Capital Requests of the Marine and Trail Enforcement Bureau of the Dane County Sheriff's Department.** With over 25,000 registered boats in Dane County, this Bureau is responsible for year round patrolling of Dane County lakes, enforcement of all laws pertaining to the lakes, investigation of accidents, and rescue operations. This year the Bureau is requesting \$25,000 for the replacement of the overhead door at Tenney Park boathouse. This door has become non-functional and as such hinders rescue efforts on Lake Monona and could be hazardous to the rescue team. Additionally, the Bureau has requested the replacement of motor boat 4 which is used on Lake Mendota as it has reached its maximum life and the replacement of the Dive Team Truck which is used as a place for divers to refresh during rescues and recoveries. The Lakes and Watershed Commission strongly supports all of these requests.