

Legislative Water Commission- 2019 Legislative Recommendations:  
Protecting and Preserving Minnesota's Lakes  
August, 2018  
DRAFT, for Discussion only, JRS

Background: Minnesota is a water-rich state with a great deal of water stored in aquifers, lakes and streams. We are not running out of water. However, our activities are negatively affecting our lakes and lake ecosystems. Our lakes provide environmental, economic, and public health benefits and our lakes are among our most treasured of our natural resources. Healthy lakes enhance our quality of life. They support complex and important food-web interactions and provide habitat for fish and wildlife. Lakes contribute to a healthy economy. They are important for tourism and provide recreational opportunities for our state's residents. Our lakes are short-lived features on our landscape and all our lakes are aging. The natural aging of many of our lakes is being accelerated because of our actions on the land and in the water. We need to protect and restore our lakes. Because of the vast numbers of lakes in the state and because of the many threats that they face, we may need to make decisions about which lakes we protect and preserve.

There are things that can be done to protect, preserve and improve the condition of our lakes. On a statewide basis, we can improve our lakes by implementing best-management practices (BMPs) where our lakes are most affected by urban development, agriculture or forestry. Across the state, we should enhance the "one watershed/one plan" process to evaluate, locate, promote, incentivize and regulate activities that will improve our streams, lakes, wetlands, and groundwater. The DNR, with others, has initiated a "sentinel lakes program" in portions of the state. This program identifies lakes for study and monitoring that serve as indicators of general lake health in the different ecoregions of the state. This program should be maintained and enhanced by implementing a sentinel lake program in many of the 80 major watersheds in the state (this would not be appropriate for all watersheds because some have few lakes). This program would provide needed information regarding the status of our lakes and would enable an existing, locally-led, statewide programs to focus BMP's in areas that can best benefit our lakes, streams, wetlands and groundwater, all tailored for specific watersheds and ecoregions.

For lakes affected by water-level changes induced by groundwater pumping, the DNR has a program to assess and address a process for groundwater allocation change (groundwater management area program). This program is well documented and provides an effective management option. The program should be continued at an accelerated pace.

That being said, a more proactive and aggressive approach is needed to protect, preserve and improve our most precious and important lakes. The sentinel-lakes program approach could be applied to identify groups and classes of lakes, across the state's ecoregions that are most important to the state's residents. After identification and prioritization, these lakes could be placed in a protected status. Much like that state's protected water's program, protected lakes could be established through a process of inventory, designation, and incentives, all subject to possible regulation. Lakes could be identified and made subjected to a series of public review periods, revisions and a final hearing. The result would be groups of lakes that need to be protected through special resource programs. More importantly, state programs such as the Clean Water Fund, the Outdoor Heritage Fund and the Legislative and Citizen's Commission on Minnesota Resources could be encouraged to consider prioritizing funding programs to provide conservation easements in the watersheds where these lakes exist.

## Working Toward Statewide Sustainable Lakes- Ranked Draft Recommendations.

1. Legislation to limit liability for de-icing applicators and property owners, given adequate training
2. Prioritize funding opportunities, within established programs, to increase environmental and conservation land easement in watersheds that contain lakes needing protection
3. Provide program support to assess lakes across the state focused on the potential effects of climate change and management practices that can mitigate those impacts
4. Data, information and analysis: Maintain and enhance information and monitoring programs for lakes. Establish interagency working group on lakes, shallow and deep. Continue and accelerate studies focused on wetlands and on shallow and deep lakes. Increase emphasis on collecting information to understand groundwater and surface-water interactions in lakes. Prepare a strategy for generating and managing information needed to integrate lake- assessment results into regulatory programs on a statewide basis. Support systematic lake assessments by re-assessing data programs in order to collect the data that are needed.
5. Water budget information: Incorporate robust water- budget information into water planning for lakes. Improve our understanding of the classes of lakes, water balances and water sustainability by including vigorous assessments of lakes into the one watershed/one plan program. Use existing information about groundwater recharge, streamflow, and water use to identify priorities for sustaining lake ecosystems, based on objective criteria. Use this analysis to assess priority areas for future lake-management programs.
6. Support efforts to increase our understanding of the importance of hydrology and the quality of aquatic biology in our lakes. Increase programs to understand the interrelationships between groundwater, surface water and aquatic ecology as well as the associated eco-services.
7. Provide funding for a sentinel lakes program focused on establishing lakes that need special protection status
8. Legislation that is focused on eliminating emerging contaminants from wastewater across the state. Include un-used pharmaceutical take-back legislation
9. Establish a status of lakes consensus document: Establish a prioritization process for the state's lakes that considers criteria for lakes to be maintained, improved and protected. Establish policy to promote those goals.
10. Assess watershed best-management practices as they apply to lakes. These should include practices that address invasive species, nutrients and sediment. Provide additional agency support to understand stressors and best management practices to preserve and to enhance lakes across the state.
11. Provide additional agency support to understand stressors and best management practices to preserve and to enhance shallow lakes. Assess and identify lakes that can be preserved.
12. Understand the importance of landscape setting. Develop a program that identifies lakes, based on their landscape setting, in order to protect and preserve our most important lakes.
13. Provide program support for studies to assess the impact of groundwater on lakes. Conduct a statewide reconnaissance assessment of isotope chemistry to understand how lakes interact with groundwater, the landscape and groundwater withdrawals, focused on how best-management practices can be most effective.
14. Develop a program to assess leaking septic systems and support legislation to provide support to fix inadequate septic systems.
15. Economic Analyses: Assess the costs and benefits of ensuring, protecting and enhancing the quality of lakes across the state. Quantify the economic value of lake-ecosystem services provided by lakes and wetlands.
16. Importance of our state as the land of 10,000 high-quality lakes: Dedicate a portion of Clean Water funds for lake- sustainably efforts. Establish a Clean lake sustainability Committee within the Clean Water Council.

17. Groundwater Recharge: Identify and protect recharge areas for lakes that need to be protected and persevered
18. Deep Lakes: Provide additional agency support to understand stressors and best management practices to preserve and protect deep lakes. Assess and identify lakes that can be preserved as deep lake habitat.
19. More rigorous legislation focused on stopping the progression of invasive species across lakes in the state.
20. Policy/legislation/incentives aimed at protecting shorelines of lakes: Based on a tiered approach that considers lake status. This could consider housing density, wastewater management and set-back requirements to protect lake quality and habitat.
21. Inter-jurisdictional water planning: Support and provide processes to manage large lakes that cross jurisdictional
22. Increase funding and regulation authority for the Groundwater Management Area Program within the DNR
23. Legislation to make it easier to establish locally-let lake management districts having authority