

Subcommittee on Minnesota Water Policy
Draft Legislative Recommendations: November 15, 2021
JRS
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These are the priority issues after the stakeholder meetings:

Topics are based on 50 issues considered important to stakeholders, members of the subcommittee and other legislators. The list has been prioritized by surveys and stakeholder meetings. The following are the issues of most importance.

Draft Legislative Issues—details are described below.

- **Bold issues were those ranked as very high priority as ranked by members**
 - *Italicized issues were those ranked as high priority*
 - Plain text issues were ranked as priority issues.
1. Define Sustainable groundwater withdrawal limits using technological advances-- define limits in a pilot one-watershed/one plan (UM Sustainability report)
 2. Bill 2 is deleted
 3. Improving water quality: UM allocation for research/outreach for precision agriculture.
 4. Tax Credit for private riparian buffer lands
 5. **Safe drinking water: Allocation to MDH/UM to support private well safety water testing clinics by a non-profit (UM report)**
 6. *Ensure safety of private wells—identify vulnerable aquifers: coordinate and supplement agency monitoring*
 7. **Water Safety plans for cities: Appropriation for a plan and pilot (UM/ MDH recommendations)**
 8. **UM allocation-- prepare a soil-health action plan including research, implementation, and outreach**
 9. *Reactivation of the LWC and the Water and Wastewater Advisory council*
 10. *Complete land preservation objective to preserve high-valued lakes in the Upper Mississippi—reaching the goal*
 11. **Environmental justice: Ensure that all have drinking water free from lead— focus on children, private wells, and rental properties**
 12. Policy and an appropriation to encourage groundwater recharge where needed, with restrictions
 13. Keeping water on the land, water retention
 14. Bill 14 is deleted
 15. Watershed Districts- changing the general fund appropriation limit to support fixed costs

Brief Explanations of Bill Contents:

Bill 1: Define Sustainable groundwater limits using technological advances--define limits in a pilot one-water/ one plan watershed (UM Sustainability report)

Short Description: Allocation for a pilot study that uses advances in science—allows us to define sustainable water use limits for a One Watershed/ One Plan watershed.

Why is this important? This bill provides a small allocation the UM and the MDNR for a pilot study using advances in technology that now allow us to define sustainable water use limits for a One Watershed/ One Plan watershed. If successful, this method could advance water management across the state. The selection of a watershed will be from counties in which county geological atlases have been completed and that are priority regional aquifer or watersheds for the One watershed/One Plan process. Recent technological advances can now be applied to synthesize county geologic atlas mapping in a manner that best supports modeling. The Department of Natural Resources, or their designee, will construct a computer flow model to determine the water budget for the watershed. This will support a determination of limits on sustainable water appropriations from the aquifer or watershed. This product would greatly increase knowledge to manage water on a sustainable basis and would serve as a pilot for other watersheds and aquifers.

Bill 2 is deleted

Bill 3 Precision agriculture research and outreach

Short Description: Appropriation to the UM to improve agricultural production and water quality by advancing research and outreach related to precision agriculture.

(If all the topics mentioned in that email were funded for one year, the total would be \$450,000)

Why is this important? This bill would provide a small appropriation to the UM, in consultation with the agencies to provide additional research and outreach through the University of Minnesota's Precision Agriculture Center. Outcomes would include policy recommendations regarding data privacy, public-private partnerships, and needed technical assistance focused on the most challenging agricultural and water issues. It would also include operational recommendations, and pilot studies for variable rate nutrients, variable rate irrigation, nitrogen mineralization, remote sensing, delineation of management zones, and extension programming.

Bill 4: Tax credit for private riparian buffer lands

Short Description: Tax bill to compensate landowners for required riparian buffer land taken out of agricultural production.

Why is this important. The buffer law provided a major step in improving the waters of the state. It required buffer strips along lakes, rivers, streams, and some ditches to filter phosphorus, nitrogen, and sediment. The requirement has resulted in some dissatisfaction among farm organizations and farmers because of the costs associated with taking land out of production, the effectiveness of the regulations, and the implementation process. Agricultural trade groups support an option to be paid for land lost to agriculture for buffers. Other options include a tax credit or subsidies for the loss of tillable lands.

Path Forward and Legislative Intent: A tax credit for land lost to farming from buffers as well as policy to propose a compensation mechanism and a process.

Bill 5: Support for Voluntary Private Water-Well Safety Testing**Short Description: Allocation to MDH and/or the UM to support private well safety water testing clinics by a non-profit (UM report)**

Why is this important? Private drinking-water wells supply 750,000 Minnesotans with water. The safety of water from private wells is unregulated and attention is needed to ensure water safety for those who drink water from private wells. The Minnesota Water Well Construction Code regulates well construction and initial minimal testing. Private wells are otherwise unregulated (University of Minnesota, 2020.) This leaves half of Minnesota's population without support regarding drinking water safety. There is a great need to provide ensure safe drinking water for private well owners. It is called out as a priority in the UM/MDH Future of Drinking Water report. Non-profit organizations, in cooperation with the UM, are beginning to implement a program to provide **voluntary** private-well testing. Local, volunteer-led, clinics provide well owners with information about the safety of their wells in addition to cost-effective water treatment options. Legislative support to the UM and/or the MDH is needed to provide testing supplies and educational materials to grow the program to provide homeowners with information about water safety, water treatment options and the implementation of private well owner water safety plans.

Bill 6: Ensuring the Safety of Private Wells, Identifying Vulnerable Aquifers**Short description: Allocation the MDH/MGS to develop a plan to review, coordinate and expand groundwater monitoring in shallow and sensitive aquifers that are significant sources of drinking water for private wells.**

Why is this important? A plan is needed to identify and monitor shallow aquifers that are sources of drinking water and are vulnerable to contamination. In those areas, increased monitoring, and education for well owners is needed to promote private drinking water safety. The bill would include a planning effort to assess and supplement groundwater monitoring in vulnerable aquifers that are used as important sources of drinking water to private wells. It would require a legislative report that identifies shallow vulnerable aquifers where additional monitoring is needed, based on existing agency monitoring and data. It would lead to the design of a coordinated multi-agency, sentinel-well network to document trends and changes in water quality. In many areas this network already exists—it needs to be coordinated and, in some areas, expanded. The resulting network would provide a means to increase source-water protection for the safety of those using private wells. It also would identify aquifers that are most vulnerable to contamination and would result in a consolidated and coordinated well network as an early warning system.

Bill 7: Water safety plans for cities**Short Description: Plan and pilot study to develop water safety plans for cities, as recommended described in the MDH/ UM report to the legislature--: "Future of Drinking Water". Member Survey: Subcommittee on Water Policy**

Why is this important? Localized source-to-tap drinking water safety assessments and management plans (water safety plans (WSP's)) are needed for public drinking water protection. These plans would provide a transparent and a flexible approach to locally tailored drinking-water-safety planning and management. A detailed approach is presented in the recent UM/MDH report to the Legislature: "*The Future of Drinking Water*" (University of Minnesota, 2020). They would provide drinking water protection for all sources of municipal drinking water. The plans would result in source-water intake protection plans with implementation activities for review and approval by the MDH. Legislative support is needed to direct the preparation of a prototype plan that would

combine source-water protection plans, water supply safety plans, emergency response plans, treatment options, distribution-network diagrams, and best operating procedures. This support would help produce a plan template and to fund a pilot study for a selected city.

Bill 8: Allocation to the UM to prepare a soil-health action plan including research, implementation, and outreach.

Short description: An allocation to the UM to prepare and implement a soil health action plan that includes research, implementation, and outreach to farmers.

Why is this important? The goals or value of an action plan would be to 1) survey the state of soil in Minnesota, 2) coordinate state agency work and messaging, 3) guide BWSR and MDA programming, 4) provide action guidance to other stakeholders including researchers and private and non-profit sectors, and 5) strengthen shared understanding across stakeholder groups.

Bill 9: Reactivation of the Legislative Water Commission and the Water Supply Systems and Wastewater Treatment Facilities Advisory Council

Short Description: A bill to reactivate the Legislative Water Commission (LWC) and the Water Supply Systems and Wastewater Treatment Facilities Advisory Council

Why is this important? Issues surrounding water are wide-ranging and highly varied across many landscapes and interest groups. Reinstatement of the LWC had strong support from state holders. Because water is important, complex, controversial, and costly, the development of water policy must be undertaken thoughtfully. The 12 member, bi-cameral and bipartisan commission, was created by the 1989 Groundwater Protection Ac. It brings value to the Legislature by:

- Having dedicated staff to disseminate pertinent information from a large array of stakeholders so members can develop a broad and independent understanding of current and emerging water issue
- Providing a venue for members to equitably receive and discuss detailed technical information
- Creating a public forum for regular, in-depth interactions between legislators that can then inform legislative work on this subject
- Developing water expertise within a larger cadre of Legislators so they can become leaders on water policy

Reactivation of the **Water Supply Systems and Wastewater Treatment Facilities Advisory Council** is needed to provide legislative input regarding water –supply systems, impacts of climate change, waste-water treatment facilities and operator education and certification. The activities of the committee were generally well accepted by members of the Legislature. Reactivation would ensure that water and wastewater professionals can provide input into agency rules and guidelines. The council would advise commissioners of the Department of Health and the Pollution Control Agency regarding classification of water-supply systems and wastewater treatment facilities, qualifications and competency evaluation of water supply system operators and wastewater treatment facility operators, and additional laws, rules and procedures that may be desirable for regulating the operation of water supply systems and of wastewater treatment facilities. The council would be an advisory council to the Minnesota Department of Health and the Minnesota Pollution Control Agency.

Bill 10: Plan to complete land preservation objective to preserve high-valued lakes in the Upper Mississippi—reaching the goal

Short Description: Evaluate preservation status of high-value lakes in the Upper Mississippi—provide a funding plan to reach the preservation goal.

Why is this important? This bill presents an opportunity to evaluate conservation programs to preserve lands for habitat and water-quality improvement in the Upper Mississippi River watershed. Research, by the Minnesota Department of Natural Resources, suggests that protecting 70 percent of a watershed is sufficient to preserve the water quality and habitat of lakes and of streams. That goal is within reach. This effort would evaluate progress made by state, federal and private organizations in meeting these goals in this important watershed. The intent of this bill is to focus on land protection rather than river and stream restoration. In so doing, the effort also helps protect source areas that supply drinking water for St Cloud, Minneapolis, and St Paul. An appropriation would incentivize additional protection of private working lands and would be used to acquire additional conservation easements on nonindustrial private forest lands through the Minnesota Forest for the Future (MFF) Program. This funding also would help coordinate the co-investment of federal, state, and local resources for private forestland protection in priority watersheds in the Mississippi River Basin. Technical Assistance funds would also be used to coordinate “co-investing” of forestland protection programs administered by NRCS, Board of Water & Soil Resources (BWSR), DNR, and local partners as well as promote forest stewardship. The effort would include a compilation of the land preserved lands in the watershed and an assessment of the location of preserved lands with respect to lands targeted for preservation by the TNC

Bill 11: Environmental Justice: Ensuring that everyone has drinking water free from lead; focus on children, private wells, and rental properties

Short description: An allocation to MDH to ensure that all residents of the state are provided with drinking water that is free from lead contamination. The initial focus would be on support for a program that tests drinking water from private wells, child-day care facilities and rental properties

Why is this important? The issue of lead in drinking water is a complex issue and affects residents of the state disproportionately. The following narrative frames some of the issues and presents a first set in addressing this issue of environmental justice. Minnesota requires that schools test every 5 years but there is no requirement for water testing at childcares. MDH has an EPA grant that funds testing in schools and childcares, but not remediation. Schools have access to some funds for maintenance that could be used to replace lead containing fixtures and plumbing. Childcares do not as they are usually private businesses, and they are reluctant to test without some funding to help address lead problems they might find. Grants for remediation of lead sources in schools and daycares would help to remediate this problem. It could be added as a requirement for water testing for licensed day care facilities.

Comprehensive, updated inventories of water service lines will likely be a new requirement in the revised Lead and Copper Rule. Community water systems will need funding and technical assistance to accomplish this in a reasonable amount of time. MHD estimates that there are 100,000 lead service lines in the state. This is primarily based on the age of housing. A solid number would be based on completion of inventories. Inventories really could be part of asset management plans which have been considered by the subcommittee in the past.

In the 2019 UM/MDH Lead in Minnesota Water report estimated that the cost of removing all lead service lines in the state (based on the 100,000 estimate) would be between 228 and 365 million dollars. In the meantime, costs have increased, so we are looking at more like 500 million totals in costs. So far, the PFA has awarded grants for \$250,000 each to St. Paul, Royalton, and now Duluth. That will not cover all their costs, but it is a start. The subcommittee could propose an increase in the funding from these grants. Additional support to the University of Minnesota would be helpful in adding locations of lead service lines to the existing Infrastructure Transparency Tool so that customers would be able to go online and see if they have a lead service line.

As a start, the subcommittee may consider support for a program that tests drinking water from childcare facilities, private wells, and rental properties. The subcommittee may also want to consider a bill that would provide funds to MDH to support a voluntary testing program that would be conducted by a non-profit organization

Bill 12: Policy and an appropriation to encourage groundwater recharge where needed, with restrictions

Short description: The Environmental Quality Board would be tasked with submitting a report to the legislature on the feasibility and policy implications of using artificial aquifer recharge to replenish groundwater levels in aquifers where water is insufficient.

Why is this important? Natural groundwater recharge occurs as precipitation falls on the land surface, infiltrates into soil, and moves to the water table. Groundwater levels in some parts of the state are declining because withdrawals exceed the rate at which aquifer are naturally replenished. In areas of groundwater depletion, artificial recharge can increase natural recharge. This can be accomplished using injection wells or surface infiltration. Artificial recharge is a common practice in many parts of the county. However, the practice has generally been discouraged in Minnesota. The legislature funded a project by the Freshwater Society and the University of Minnesota) to explore the feasibility of expanded groundwater recharge. In order to capitalize on this study, as well as on the benefits being realized in other states, the legislature needs to develop a decision-support system and cost-benefit analysis tool for interested parties to evaluate the potential to use aquifer storage and recovery; apply to United States Environmental Protection Agency for primacy over class V injection wells; modify Minnesota Statutes, chapter 103I, to allow injection wells in aquifer storage and recovery projects that meet specified design criteria; and develop a process for well permitting with engineering and environmental details including source water, aquifer, pre- and post-treatment, reporting, and monitoring requirements.

Bill 13: Keeping Water on the Land.

Short description: Allocation to increase efforts and create policy to reduce flood peaks in priority areas that can be used for water retention and groundwater recharge in rural and urban areas.

Why is this important? Water Storage in Rural Minnesota: Agricultural drainage has provided many benefits that allow farmers better access to croplands and to complete farming operations in a timely manner. Without agricultural drainage, increases in soil productivity and crop yields would be difficult and economic returns would be diminished. While drainage of Minnesota's croplands provides benefits, several environmental concerns are associated with agricultural drainage. The installation of agricultural drainage, both surface ditches and sub-surface drainage, accelerates transport of water from farm fields. There are downstream issues with unmanaged or uncontrolled

agricultural drainage, which may increase flooding, may affect available water recharge to wetlands, may impact migrating waterfowl population, and may degrade downstream water quality.

Urban stormwater Retention: We need to evaluate, prioritize, and promote water retention in urban areas storage facilities: Keeping water on the land reduces erosion, improves soil health and water quality, increase groundwater recharge, and improves agricultural production. However, the water quality impacts of stormwater capture and retention in urban areas is not well understood. There is need to assess and quantify the cumulative impacts of water storage and flood retention structures in urban areas in order to order to provide direction and policy. Research and policy are needed to ensure the quality of groundwater is not degraded as a result of leakage from these storage facilities.

Bill 14: is deleted.

Bill 15: Increased general fund support for watershed districts—keeping up with inflation.

Short description: Modify MN Statute 103D.905: regarding the upward limit on the general fund from the general fund from \$250,000 to \$500,000.

Why is this important? A change in statute is needed that allows the general fund allocation so watershed district to be increased to keep up with inflation. The allocation provides some or f the operating funds for watershed districts.