Public Input

Governor Mark Dayton asked Minnesotans for their input on how to increase the pace of progress to clean water, setting a goal of 25 percent improvement in water quality by 2025. **This is what we heard.**

Office of
Governor Mark Dayton

In the Land of 10,000 Lakes, Minnesotans expect clean, affordable water, no matter where they live. Clean water is a natural asset that helps Minnesota business thrive, supports a healthy population and strengthens our clean water economy for outdoor recreation, residential property values and ample water supplies.

But our water is increasingly at risk - we have pollution in our lakes, rivers, and drinking water sources. We have aging infrastructure, some of which hasn't been improved since the 1930s. More than 40 percent of Minnesota's waters are listed as impaired or polluted. Aquatic invasive species have infested more than 550 lakes statewide.

Without additional action, the quality of Minnesota's waters is expected to improve only 7 to 8 percent by 2034. A year ago, I set a state goal for water quality improvement of 25 percent by the year 2025. It builds on the expectations of people across Minnesota that their water is clean and safe.

Last year, I traveled our state with my agency leaders, listening to over 2,000 Minnesotans, to hear their ideas for improving the pace of progress. Through our conversations I learned much about the actions Minnesotans are already taking to improve water quality. I also heard clear calls for more help, to work together, and to work locally.

It reinforced that we must:

- Empower locally driven watershed solutions to ensure our drinking water sources are protected, to accelerate adoption of conservation practices that reduce pollutants, and to improve the health of our soils.
- Reinvest in our water supply and wastewater infrastructure to ensure they have the resources they need to maintain water treatment systems.
- Ensure all Minnesota citizens are educated about water so that all Minnesotans understand where their drinking water comes from and how their individual actions can impact community water resources.
- Support a strong agricultural economy that is sustainable, meaning Minnesota farmers are able to compete in national and world markets while supporting clean rivers, and lakes, and drinking water.
- Encourage better water protection practices by local governments, including snow and trash removals, lawn and park maintenance, and other actions that affect water quality.

To accelerate the pace of progress to clean water, we need to learn from one other and, most importantly, we need to work together.

Governor Mark Dayton

MINNESOTA

Introduction

In February 2017, Governor Mark Dayton asked Minnesotans for their input on how to increase the pace of progress to clean water, setting a goal of 25 percent improvement in water quality by 2025. Without additional action the quality of Minnesota's waters is expected to improve only 7 to 8 percent by 2034. Minnesota faces growing water quality issues that affect the health and livelihood of communities across our state. The 25 by 25 goal is a call for action to spur collaboration, progress, and innovation to achieve cleaner water for Minnesotans.

Between July and October 2017, the Governor and other state agency leaders traveled across the state to hear from Minnesotans. In Town Hall meetings, the public heard from local farmers, Soil and Water Conservation Districts, teachers, NGO leaders, city engineers, and others about regional water assets and the challenges they face. This was followed by discussion of priorities and strategies by community members. This report summarizes the input received.

Agencies involved

Board of Water and Soil Resources

Department of Agriculture

Department of Health

Department of Natural Resources

Environmental Quality Board

Metropolitan Council

Pollution Control Agency

Public Facilities Authority

Local partners

Local partners were critical to the success of the 25 by 25 engagement process. They collaborated at every step by providing local expertise, promoting events, and volunteering their time. Thank you!

We asked participants to describe what they love about Minnesota's water and what concerns them.

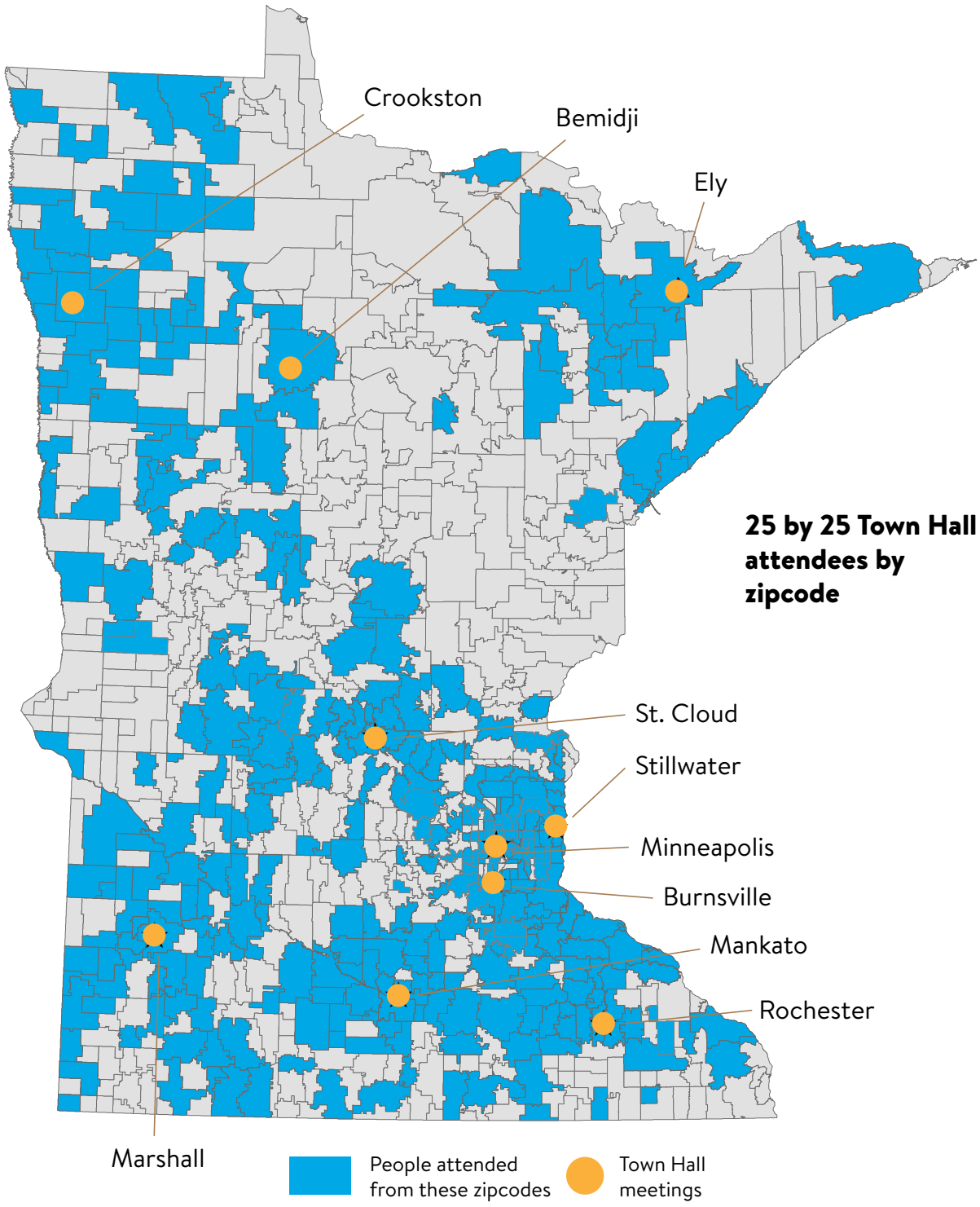
Rochester Town Hall meeting

2,000+ people attended one of the ten 25 by 25 Town Hall meetings across the state

Hundreds of elementary school children interacted with 25 by 25 at the Metro Water Festival

500+ participated online and via community meetings

3,500+ ideas submited for improving water quality in Minnesota



Top concerns & strategies for water quality improvement from Minnesotans across the state

Staff from multiple state agencies read and categorized the thousands of comments we received from the public and integrated this with input they received at their agency specific listening sessions. Nine main themes rose to the top as the key topics of interest to Minnesotans.

- Education, communication, and engagement
- Reducing runoff by holding more water on the land
- Working together across levels of government and with the public
- Locally led watershed planning
- Pollutants and drinking water
- Salt pollution
- Septic systems
- Funding
- Incentives and regulation

What we heard

Education, communication, and engagement

Overwhelmingly, the top theme among the comments received was increasing education about water quality issues and solutions. This concern ranked at or near the top in every region of the state.

> "Minnesota needs a land ethic. We need to cultivate and nurture that land ethic in all our children starting in early childhood."
> — *Minneapolis*

Comments ranged from the need to include water in K-12 school curriculum to building trust among citizens, showing that education about water quality means many things to Minnesotans. At the heart of the input was a desire to expand conversations about water to more Minnesotans, as well as to incorporate education more widely and deeply into all of our water quality programs and practices. Minnesotans acknowledged that education flows in multiple directions and that decision makers, scientists, and government professionals have much to learn from the communities they serve. Another common sentiment was that education should address the social, economic, and environmental dimensions of water problems and solutions and use hands-on approaches to develop social relationships, confidence, trust, and local involvement.

Marshall Town Hall meeting

What we heard: Top water quality education themes

- Build statewide water literacy through K-12 education.
- Share knowledge among farmers and others working in agriculture to spread new approaches like cover crops, low till farming, and controlled drainage.
- Create broad media campaigns to build a water ethic and promote shared values.

"Promote water education throughout the state to identify a problem and show a variety of successes. Local faces help influence others." — *St. Cloud*

Understanding the issue: Education, communication, and engagement

In K-12 curriculum, there are opportunities to integrate water education into science and social science curriculum, but it is often up to individual teachers and schools as to whether water should be a focus of attention. Some districts have developed programs that could serve as models for others. Clearer pathways for teachers and schools to share and access existing water education resources and programs would support more educational opportunities.

On the land, farmers and local governments are always innovating new and better ways of managing their resources. While professional societies and agricultural groups provide a way to share innovations, and local, state, and federal government offer trainings, there could be additional ways to support peer-to-peer learning and mentoring. In particular, making changes to how tillage is managed, use of cover crops, or fertilizer applications can involve risk and investment. Not only do these practices involve landowners, but they also involve the support of crop consultants and lenders, making it critical that continued education is available for these professionals as well. Soil and Water Conservation Districts and Watershed Districts form a network across the state that could be leveraged to accelerate knowledge sharing and adoption of new practices in partnership with other stakeholders.

"Offer widespread/systemic education on how aging septic systems, vegetation management, well management, and runoff from our land affect water quality, and how we as individuals can mitigate these effects." — *Ely*

What we heard

Reduce runoff by holding more water on the land

Holding more water on the land by expanding water quality projects and practices was also a top concern across the state. A wide range of strategies were raised by the public, reflecting regional topographic differences along with the assertion that solutions to hold water on the land need to be site specific. What works on one farm or suburban yard may not be the best solution on another. Many of the strategies suggested by the public provide multiple benefits. For example, raingardens not only slow the flow of water, but also provide habitat for pollinators and can serve as educational tools for communities.

"Set specific goals for water storage in state watershed plans." — *Mankato*

"Increase perennial land cover in targeted sensitive areas." — *Marshall*

What we heard: Top strategies in agricultural areas

- Expand cover crops.
- Reduce tillage.
- Increase crop diversity.
- Increase perennial crops.
- Improve drainage management for better water retention.
- Improve soil health.

What we heard: Top strategies in urban areas

- Expand rain gardens.
- Improve storm water management.
- Expand green and permeable infrastructure.
- Increase native landscaping.

Rochester Town Hall meeting

Rochester Town Hall meeting

Understanding the issue: Reducing runoff

Changes we make to the land impact how quickly water passes into storm drains, lakes, wetlands, rivers, and groundwater. Increasing the speed and volume of runoff raises the amount of chemicals and sediments in our waterways and causes erosion. We can change this by slowing the flow of water and letting it soak into the ground, recharging groundwater. In urban areas, green infrastructure helps the built environment behave more like a natural landscape by holding water on the land after a rainfall. In agricultural areas, cover crops, perennial crops, and no till/minimum till systems can help filter and reduce the volume of runoff while increasing the soil's ability to hold water. These practices not only protect water bodies from pollutants, they also mitigate flooding. Wetlands, forests, and grasslands are also important types of living cover that help slow the flow across Minnesota's diverse landscapes.

"Increase native plants and permeable infrastructure in the city. Add more rain gardens."
— *Mankato*

What we heard

Work together

A consistent theme in the feedback for all levels of government was to work more effectively together. This was expressed in different ways, including calls for clearer communication about water quality issues, streamlining grant application processes, and better coordination among different levels of government. The comments suggest that working together more effectively could help make better use and availability of existing programs and services.

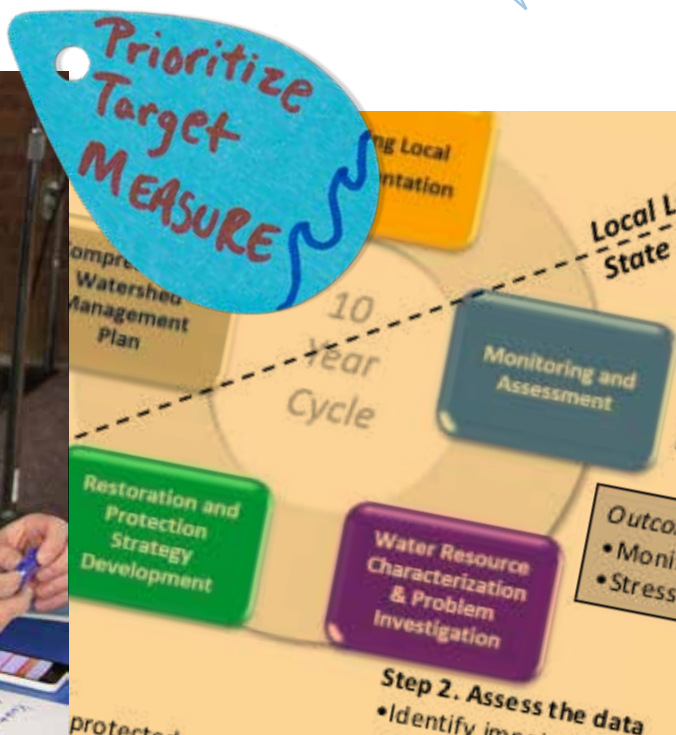
"Encourage collaboration among agencies, landowners, residents, cities, and engineers."
— *Mankato*

Understanding the issue: Coordination

Water governance and planning in Minnesota is complex and multi-faceted. Multiple state agencies are charged with distinct but related water management roles (public health protection, natural resource conservation, pollution prevention, etc.). Each has its own responsibilities and professional expertise. On top of this, local units of government, non-governmental organizations, private sector groups, developers, landowners, and others all contribute to water planning and management. This system allows many approaches to water management to coexist, which can be helpful in bringing more perspectives to the table. At the same time, the resulting web of connections, programs, and permit requirements can be difficult to navigate for many Minnesotans. Opportunities exist for improvement.

"Change our attitudes to improve cooperation so that we can solve our environmental issues as a group. We share responsibility and goals."
— *St. Cloud*

Rochester Town Hall meeting



What we heard

Locally led watershed planning

A top theme in the comments was the need for locally led action and planning. Respondents expressed the value of local decision making. Not only is this essential to buy-in, but it best secures the long-term commitment needed to make change. Respondents also pointed out that locally driven planning allows for customized solutions that are tailored to the unique topography, soil, geology, and economic drivers in different areas of the state.

"Unify planning for watersheds, using a process that involves all stakeholders."
— *St. Cloud*

"Promote local community-led solutions, let people feel like they are truly part of the solution."
— *Marshall*

"Manage and empower by watershed, not by municipal or county boundaries. "
— *Rochester*

Understanding the issue: Local planning

Locally led water management is critical to prioritize where to make investments and to ensure activities are coordinated. There are 80 major watersheds in Minnesota. Intensive water quality monitoring and assessments are conducted in each of these watersheds by the state in cooperation with local partners. The data gathered is used to identify where problems exist and strategies to address them. In 2012, Minnesota established the *One Watershed One Plan* program to align local water planning on major watersheds with state goals. This program supports local governments and other partners to prioritize, target, and design measurable watershed implementation plans. Five plans have already been developed under a pilot phase of the program and thirteen more are in process. An ongoing challenge is that no funding source is committed to fund these plans once they are created.

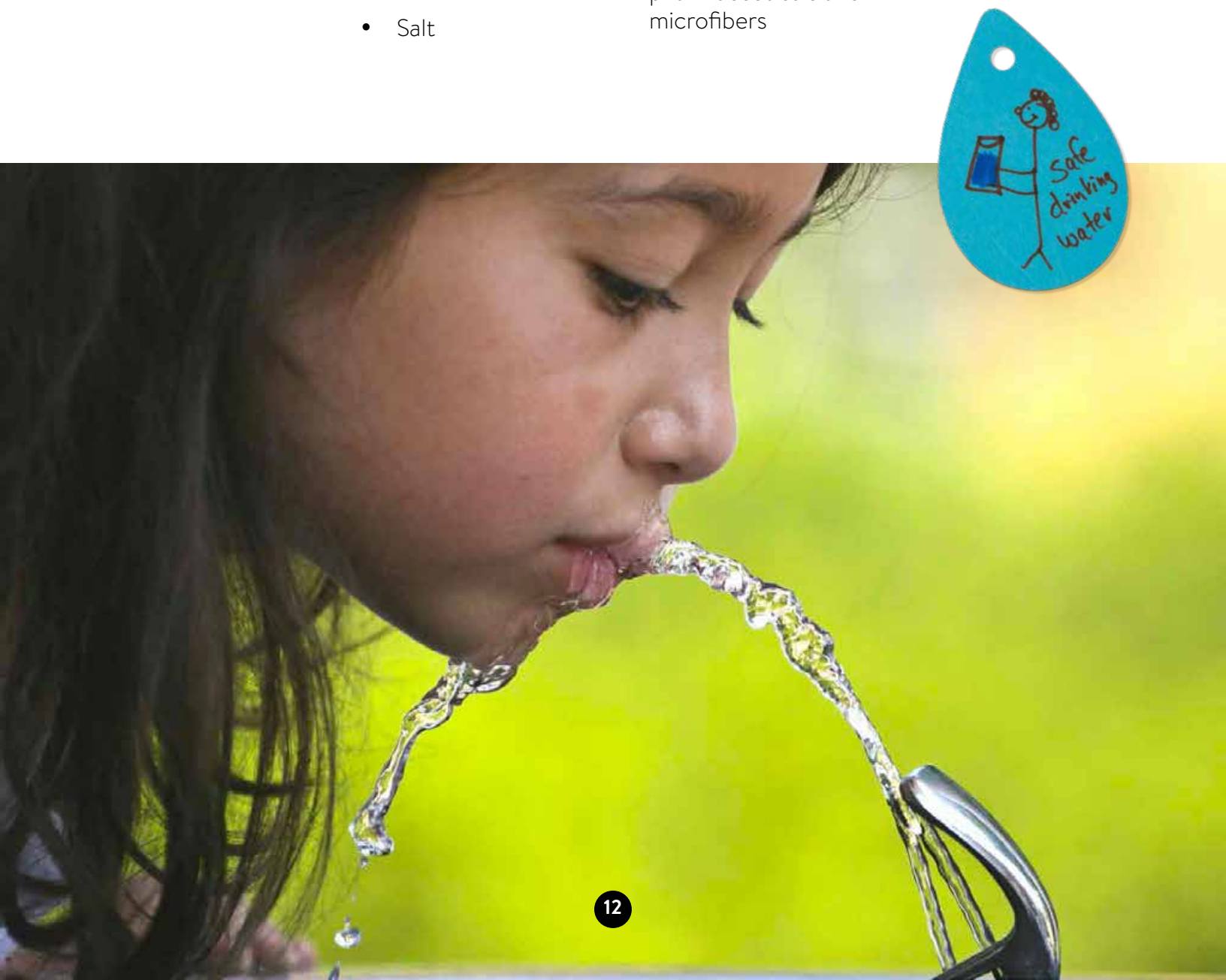
What we heard

Pollutants & drinking water

Across the state, Minnesotans expressed a desire to reduce the amount of harmful pollutants that enter our water. These pollutants come from things we do on the land such as applying fertilizers and pesticides on farm fields, yards, and lakeshores and from the chemicals and materials we use in our households, buildings, and industries. They are a concern for recreation, wildlife, and drinking water.

Top pollutants of concern for Minnesota:

- Nitrogen
- Phosphorus
- Sediments
- Salt
- Arsenic
- Contaminants of emerging concern (CECs), including pharmaceuticals and microfibers



Understanding the issue: Water pollution

Safe, clean drinking water is fundamental to the health and vitality of our state. Minnesota has a long history of providing excellent drinking water for our citizens due to investments in prevention, treatment and monitoring and building strong partnerships throughout the state. In recent history, Minnesotans have rarely had to consider where the water in their taps comes from. However, 20 percent of Minnesotans rely on private wells that are not regulated by the state after the initial drilling stage. In Minnesota, over 70 municipalities and thousands of homeowners who rely on private wells have nitrate pollution approaching or exceeding safe drinking water standards.

Looking ahead to the next 20 years, Minnesota will need to invest an additional $7.4 billion to address existing infrastructure as it ages and needs to be replaced. Addressing familiar and emerging threats with new infrastructure for municipal systems and private wells will require additional funds in order to maintain the quality of drinking water we have come to expect. Major water problems elsewhere in the United States have been in the news over the past year, including ongoing lead problems in drinking water in the city of Flint, Michigan, and unsafe levels of nitrate in the rivers from which Des Moines, Iowa, draws its water. We have the knowledge and tools to avoid these problems, but it will require ongoing vigilance and investment in the systems and infrastructure that keep our water safe. We cannot take drinking water for granted.

In addition to drinking water, monitoring shows that while 60 percent of lakes and rivers meet standards, another 40 percent are impaired. Some pollutants, such as phosphorus, have been an issue for decades, and we know a great deal about how they affect the environment. Other pollutants, such as pharmaceuticals, have been recognized as problems more recently, and still others we may not know about yet. The development of new products and chemicals and our knowledge about what affect chemicals have on the environment and human health are constantly evolving, and the challenges we face may change down the road.

"Increase individual homeowner awareness and buy-in on pollution reduction practices."
— *Burnsville*

"Reduce pollutants in water to improve drinking water quality and recreation quality."
— *Mankato*

Burnsville Town Hall meeting

What we heard

Salt

Reducing road salt use was a concern of Minnesotans across the state and a top priority in the Twin Cities Metro Area. Strategies suggested for reducing salt use included better training for salt applicators, finding alternatives to salt, and limiting slip and fall lawsuit liability for private salt applicators who are trained in proper salt application techniques.

> "Use smart de-icing procedures at commercial properties and on roads."
> — *Burnsville*

> "Limit liability for properly trained salt applicators and homeowners."
> — *Stillwater*

Understanding the issue: Salt

The salt applied to roads, parking lots, and sidewalks during our icy winters allows us to walk and drive. At high concentrations, salt is toxic to some forms of aquatic life including trout, frogs, and some native aquatic plants. The costly, challenging nature of removing salt from groundwater and wastewater makes reduction of salt application the most feasible way to reduce levels. When snow and ice melt, the salt goes with it, washing into our lakes. Water pollution from salt is widespread in the Twin Cities due to the concentration of roads and hard surfaces that require de-icing in winter. Salts used in water softeners also contribute to pollution when they seep in to groundwater from septic systems or wastewater treatment facilities. Because facilities are not designed to remove it, salt ends up in rivers, lakes and streams. While salt contamination is most pronounced in the Twin Cities, this is a growing issue for small towns and rural areas throughout the state.

Stillwater Town Hall meeting

What we heard

Septic systems

A top concern in northeast Minnesota is reducing the number of failing and inadequate septic systems. Problematic septic systems exist throughout Minnesota, but residents in the northeast expressed a particular concern that the good water quality they enjoy in this area of the state is negatively impacted by septic systems that are improperly managed and maintained. Stricter enforcement of septic system regulations, providing financial assistance for costly system repair and installation, and education for septic system owners were three strategies suggested by the public to address this issue.

> "Offer incentives or rebates for cost-prohibitive septic upgrades, educate private landowners about septic problems, do more septic inspections."
> — *Ely*

Understanding the issue: Sub-surface sewage treatment

Minnesota residents in areas without access to public sewer systems maintain their own septic systems. When working properly, septic systems treat wastewater and ensure that pathogens, nutrients, and other chemicals do not reach ground and surface water. A poorly functioning septic system is a threat to human health and the environment because it may not remove these harmful elements and can lead to contamination.

The landscape of northeast Minnesota creates unique challenges for finding suitable locations for septic systems. Septic systems need adequate soil to allow for proper drainage. Shallow bedrock and extensive wetland areas make finding enough soil more difficult in this region of the state. Often mound systems or advanced treatment systems are needed to treat the sewage to an acceptable level before discharge to the soil, but these systems are more expensive and can cost as much as $20,000. St. Louis County offers grants to help offset costs for updating septic systems for low income families, but this funding is not sufficient to bring the majority of systems into compliance. Currently there is no good way to determine what percentage of septic systems in the northeast are not in compliance.

St. Cloud Town Hall meeting

What we heard

Funding

The need for longterm, sustainable funding for clean water projects and initiatives was a consistent theme at each of the Town Hall meetings across the state. Citizens were interested in finding ways to ensure adequate funding is available for activities such as water quality monitoring, wastewater infrastructure, agricultural practice implementation, storm water management, K-12 education, local government, Soil and Water Conservation Districts, and enforcement efforts.

> "Increase funds for small community water treatment and storm water needs."
> — *Rochester*

Understanding the issue: Money

In 2008, Minnesotans voted to increase their sales tax by three-eighths of one percent and passed the Clean Water, Land and Legacy constitutional amendment. Starting in July 2009 and continuing through June 2034, about $100 million each year will be invested from the Clean Water Fund to protect drinking water sources and to protect, enhance, and restore lakes, rivers, streams and groundwater. However, there are more needs and demands on these funds than what is available, making stable funding for water quality efforts an ongoing challenge. Achieving our clean water goals will require not only Legacy funds but also continued investment from traditional sources of water resource funding.

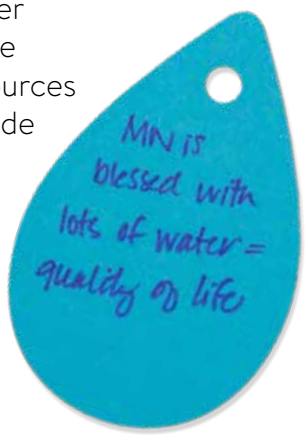
Based on federal and state surveys, Minnesota communities need an estimated $11 billion in new wastewater and drinking water infrastructure over the next 20 years to replace aging systems, upgrade, and expand. Around 40 percent of the necessary improvements are at facilities located in Greater Minnesota. State bonding bills are critical for supporting communities around the state to invest in their water infrastructure to keep our communities healthy and to protect our drinking water, lakes, and rivers.

Ely Town Hall meeting

Soil and Water Conservation Districts (SWCD) in each county make the important connection with private landowners and land users, offering information and education, as well as technical and financial assistance, to accelerate and enhance conservation practice implementation across the state. However, their ability to effectively protect and support healthy soils and clean lakes, rivers, and drinking water is limited by a lack of solid, long-term funding. Without funding authority, SWCDs spend significant time applying for grants and undertaking programs where funding exists. To strategically address the unique water and soil issues of each county, SWCDs need their own funding.

"More funding for Soil and Water Conservation Districts to increase water quality."
— *Crookston*

An important source of funding for protecting drinking water is the Safe Drinking Water fee (or service connection fee). However, the fee has not been increased in 12 years, yet costs have increased 28% due new threats to drinking water like pharmaceuticals, harmful algal blooms, and requests for technical support. The fee was established in 1992 to help fund monitoring for compliance with the Federal Safe Drinking Water Act. The fee supports activities such as testing and analysis of public water supplies and technical assistance for communities. These services are particularly critical for small, rural communities that have fewer resources for testing and lack engineering support. Minnesota's ability to provide specialized, regional support through the Department of Health to public water suppliers is one of the key reasons we have kept our drinking water safe statewide and avoided the types of drinking water emergencies that other states are facing.



St. Cloud Town Hall meeting

What we heard

Incentives and regulation

Across the state, there was a balance of comments calling for more regulation and enforcement compared to those calling for more incentives. This suggests that the public feels that both "carrot" and "stick" approaches are necessary for achieving clean water. Some regional differences did exist in the feedback. Calls for increasing incentives ranked more highly in agricultural areas whereas ideas for regulatory options ranked more highly in the northeast, north central, and the metro regions.

"Address excess water demand on aquifers through a combination of regulations and incentives at the state level."
—*Burnsville*

"Provide incentives for landowners to implement conservation practices to improve soil health."
—*Bemidji*

Understanding the issue: Encouraging change

There are multiple ways to encourage change on complex issues like water quality improvement. All four of the strategies below are needed to make progress.

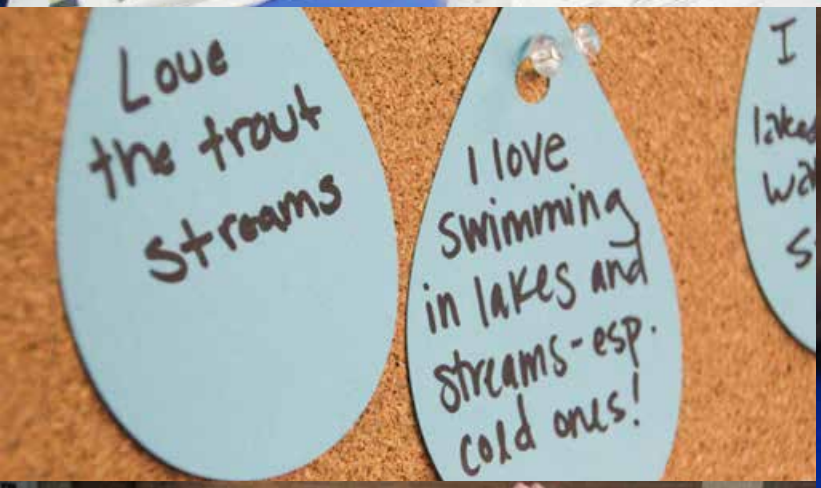
Voluntary These programs are optional and often include funding, incentives, and education.

Regulatory Create laws, regulations and/or guidelines. Implementation includes permit requirements, monitoring, codes and standards.

System change Identify and work to change the status quo through market forces, cultural expectations, governance models and management structures.

More study Propose additional research or monitoring where more information is needed. Studies could include developing new technology, monitoring water or land use, or social science to understand cultural barriers.

Bemidji Town Hall meeting


Love the trout streams
I love swimming in lakes and streams - esp. cold ones!


25BY25

25BY25