



The State of Minnesota's Water

An Evaluation of Stakeholder Perspectives on Water Priorities

Contents

▶ <u>Introduction</u>	3
▶ <u>Methods & Objectives</u>	4
▶ Findings	
<u>Perspectives on Minnesota’s Policy Environment</u>	5
<u>The Challenges and Opportunities of Minnesota’s Water Policy Landscape</u>	8
<u>Reframing Water Policy in Minnesota</u>	12
▶ <u>Key Takeaways</u>	20
▶ <u>Conclusions</u>	22



Introduction

The McKnight Foundation has been a principal investor in preserving and protecting the Mississippi River for more than 25 years.

This commitment to the health and vitality of the river stems from the recognition that it plays a vital role in the ecological, social, and economic systems of Minnesota and beyond. A clean and resilient Mississippi River is essential to our state, and to McKnight's mission of improving quality of life for current and future generations.

Today we're at an inflection point in Minnesota's water history. Our state is known for its more than 10,000 lakes, yet 40 percent of our waters are impaired. In northern Minnesota, businesses and communities are seeking a new relationship with the river and lakes as the economic base of those communities continues to shift from one based on mining and manufacturing to one more dependent on tourism and recreation. In southern Minnesota, intensive agriculture production continues to impact communities and water: Rivers and other waterways are polluted with high levels of nitrogen, phosphorus, and sediment. Cities and small towns across Minnesota are grappling with a combination of aging infrastructure and a growing need to purify water as it declines in quality.

Current policies are not sufficient to make the changes needed to improve and protect the water quality of the Mississippi River.

In the winter of 2017-18, the McKnight Foundation engaged SDK Communications to assess the opinions of water stakeholders across Minnesota. The goal of this research: to gain insight into how Minnesotans from different regions and sectors think about and prioritize water. The synthesis of interviews that follows is a snapshot of perspectives at a unique point in time intended to help the McKnight Foundation, its grantees, and its partners consider what can be done to protect and improve water quality.

Water quality depends both on million-dollar infrastructure decisions as well as the millions of little choices individuals make every day. The hope is that this research will seed a new Minnesota conversation about what can be done to improve the quality of the Mississippi for current and future generations.

Methods & Objectives

This report synthesizes the perspectives offered during in-depth conversations with 22 water stakeholders. The main objective of this research was to explore the perspectives of different stakeholder groups regarding water quality and water policy in Minnesota. A secondary objective was to understand the priority placed on water quality and water policy relative to other needs and topics that matter to Minnesotans.

To achieve these objectives, SDK Communications conducted a series of 22 interviews, each approximately one hour, with water stakeholders. Most were conducted by telephone in the winter of 2017-18. The interview subjects were selected from a list of 50 preapproved by the McKnight Foundation. The selections were made to ensure a diversity of perspectives across stakeholder groups, geography, and more.

Three of the 22 interviews were conducted in person and in partnership with Julia Olmstead of the McKnight Foundation's Mississippi River program. The table below shows the number of interviews by stakeholder group.

Constituency	Interviews
Environmental Advocates	5
Agriculture Interests	2
Business	1
Public Health	3
Local Government	4
State Government	3
Rural Thought Leaders	4
Total	22

The pages that follow offer a synopsis of themes that emerged from these interviews.



Perspectives on Minnesota's Policy Environment

► Respondents' Top-Priority Issues: Healthcare, Workforce, and Growing Diversity

No respondents working outside of water and environment topics cited water or the environment as the most important policy topic facing Minnesota today. Of those inside water and environment organizations, half cited it as the most important topic. The top issues cited were workforce shortages, the cost of healthcare, and Minnesota's growing diversity. In rural areas especially, the workforce shortage and growing diversity were seen as directly connected issues; the growing diversity comes from populations meeting the demands of workforce shortages. Childcare shortages and a lack of workforce housing were each mentioned at least once.

"Healthcare and the high cost of care are the biggest issues in my community. Farmers are impacted greatly, as many are included among Minnesota's uninsured. They pay high premiums and aren't eligible for MNsure [subsidy]. When we talk about high premiums, the cost of coverage in my rural community is 30 percent more than what people pay in the Twin Cities." – AGRICULTURE STAKEHOLDER

"For generations, our region has been an exporter of talent. Now, we're looking at a 20-year window of workforce shortage that we'll need to address through 2040. And closely related to that, the next biggest issue for us is adapting to growing diversity. Immigration in our region is a great economic asset. But it's a traditionally homogeneous area, and the change is hard for some." – RURAL THOUGHT LEADER

"The biggest issue facing Minnesota is the barriers we have to people living and enjoying all that's good about Minnesota. Housing in [the metro area] is decent, but a big segment of our community doesn't have access to housing. Someone may have a job in our community, but they can't afford to live here, so our workforce end up busing or without reliable transportation." – PUBLIC HEALTH STAKEHOLDER

"Some of the most pressing issues I see, at least in Greater Minnesota, are a lack of workers, a lack of transportation for workers who have to commute or aging citizens, and a lack of affordable, quality housing stock. People come to Greater Minnesota communities wanting to build a life, and there are no good homes they can buy or afford." – RURAL THOUGHT LEADER



► **Climate Change Was the Most-Cited Environmental Issue**

Water was an important aspect of climate change discussions for several respondents. Increased water flows that have come, in part, from the more severe weather of climate change, is exerting lasting impacts on the landscape. Still, climate change was the environmental issue most cited by respondents overall.

“Climate change is creating horrible rain events that are taking soil and having a real impact. Our water quality is declining, and it’s coming from the big heavy rainfall events that create erosion with corn and soybean farmers.” – LOCAL GOVERNMENT STAKEHOLDER

“With the heavy storm clouds of climate change in general, we have a lot to be concerned about in the natural environment. I’m not an environmental scientist, but it’s becoming increasingly clear that climate change is a problem that’s accelerating.” – BUSINESS STAKEHOLDER

“Right now the two biggest issues we’re working on are climate change and water. Climate change is already impacting communities. The game-changer for us could be how communities deal with aging infrastructure in the midst of all of this.” – STATE GOVERNMENT STAKEHOLDER

“Climate change is having real, significant impacts on our natural environment. There’s a change in vegetation, and people are starting to recognize how climate change impacts them. Look at our community—we’ve had the second warmest winter, and that means pests that otherwise would have frozen off in the winter did not. Those pests then have an impact on the crops the next summer.”
– RURAL THOUGHT LEADER

► **Priority Issues for Respondents: Water Infrastructure, and Groundwater and Surface Water Pollution**

Several respondents noted the aging infrastructure in small Minnesota cities as a top water issue. The other big water issue: groundwater and surface water pollution. The role of agriculture was not consistently acknowledged in conversations about water pollution, but most respondents referred to agriculture as a primary driver. Respondents working outside of environment or local government fields, and especially those in northern Minnesota, were less likely to directly link groundwater and surface water pollution with agriculture practices. For these respondents, water infrastructure issues were an issue of system age or a major employer.

“Our most pressing water topic is clear: water washing off cropland. Minnesota has lots of successes, and water is the last remaining point of pride that we don’t have a handle on. Do we technically know how to change the application of fertilizers and conserve water? Yes. Do we know how to change the social norm so that farmers will actually do it? No.” – ENVIRONMENTAL ADVOCATE

“Water quality and doing a better job of data collection and monitoring. Water impacts soil health—the two are very related—and we need better aggregate data to make better decisions on water.”
– AGRICULTURE LEADER

“Agriculture chemicals are one of our biggest environmental issues. On the one hand, we need them to grow our crops. But the environmental impacts are undeniable.” – RURAL THOUGHT LEADER

“We’re entering scary territory on water infrastructure in Minnesota. There have been bills in the legislature to deal with this, but we don’t have the resources to pay for it all. The health of water is a close second when you think about the nitrates in some of our water. The other day I read about Brown County turning down a state grant to test nitrates in their water. We’ve got to come to terms with what we’re doing to our drinking water, but we haven’t dealt with it yet.”
– STATE GOVERNMENT LEADER

“Groundwater quality and quantity is an important issue that we don’t talk enough about. We talk about groundwater less, but that’s because we don’t know whether there are problems or not. A lot of wells aren’t tested, so it’s out of sight, out of mind.” – STATE GOVERNMENT LEADER





The Challenges and Opportunities of Minnesota Water Policy

► The Double Bind of Agriculture Pollution and Small Towns' Water Treatment Needs Was Acknowledged Among Respondents

Several respondents explicitly noted the challenging, growing dynamic that exists between small towns across Greater Minnesota, and the farmers that dot the countryside in between. The Minnesota River was an acknowledged focal point for this tension. The City of Mankato has taken leadership in organizing small towns along the Minnesota River to coordinate wastewater improvement initiatives, and the Mankato Chamber of Commerce has organized an initiative, GreenSeam, to tout the region's significant agribusiness presence. Even beyond the Minnesota River valley, most stakeholders noted that the dynamic between agriculture and small towns was a challenging political barrier to improving water quality.

"The narrative right now is: 'Don't do anything to disrupt agriculture,' and we're giving a free pass on water quality issues as a result. We [need] a long-term solution that gets to the root of the problem. What does a rural economy look like? Our only new construction in small towns is a Dollar General and a Casey's, yet there's little talk of what value that's adding to our rural economy. When we think about a fear of disrupting agriculture, this plays into it." – ENVIRONMENTAL ADVOCATE

"Right now we're trying to strike a balance between the ag sector's need for a livelihood and the needs of quality water for future generations. It's a big issue for municipal water supplies in rural communities, too. There's a real divide between those who are ensuring water quality and those who rely on water and our natural resources for their livelihood." – RURAL THOUGHT LEADER

"Right now cities are really frustrated because we feel like we're doing a lot of work and regulations are asking us to solve problems we didn't create. Yet cities are caught in the middle with the agriculture community. Those farmers come into town to shop; they're the friends and neighbors and people at church." – LOCAL GOVERNMENT STAKEHOLDER

“I don’t hear about water except from those directly involved—wastewater treatment and economic development, for example. Small towns are where the challenge is. Resources are the issue, and runoff is a big variable that’s driving the need for system improvements. We see this on farms, too, where wells are a growing concern.” – RURAL THOUGHT LEADER

“Farmers are businesspeople first and foremost, and they’re hemmed in by a global marketplace. If we could get farmers to grow something besides corn and soybeans along the Minnesota River, you could take one floor off the Minnesota Pollution Control Agency. Their impact is significant.”

– ENVIRONMENTAL ADVOCATE

► Stakeholders Had a Less Than Positive View of Minnesota’s Current Water Quality

Overall, the stakeholders did not rate Minnesota’s water quality favorably. However, their knowledge of water issues and the overall rating of Minnesota’s water quality were inversely related. The more respondents knew about water quality through working in state or local government, environmental advocacy, or even working in southern Minnesota communities generally, the lower they rated Minnesota’s water quality. Respondents in regions and sectors less directly tied to water quality debates rated the state’s water quality much higher.

“Minnesota is lucky because of geography. We sit at the top of three watersheds, so all of the problems that we have are problems that we create. In the Minnesota River we’re seeing some improvement in the nitrates, but it’s because there is more water, not less pollution. In the north, I’ve attended stakeholder meetings for the Polymet mine, and we can’t seem to get to the truth-telling part of the water quality conversation. That’s disturbing when we’re relying on a corporation to protect our environment for 500 years.” – ENVIRONMENTAL ADVOCATE

“I would rate [Minnesota’s water quality] as poor. We have too many impaired waters and we need to look at how we farm.” – LOCAL GOVERNMENT STAKEHOLDER

“[Minnesota’s water quality] is not good. Some say we’re doing better than other states, but that’s resting on our laurels. We had a lot of good laws passed in the 1970s. But we haven’t done a lot since.”

– ENVIRONMENTAL ADVOCATE

“We’re deceiving ourselves when we say we’re doing good. That’s true in some areas, but we’re also avoiding hard conversations with agriculture, mining, and these big industries that have a big role in our economy and on our water.” – ENVIRONMENTAL ADVOCATE

“I’d give Minnesota a six on a scale of one to 10. Forty percent of our waters are impaired, and our state needs billions of dollars to make the infrastructure repairs needed to keep our water clean.”

– RURAL THOUGHT LEADER

► But Many Were Optimistic About Minnesota’s Capacity for Improvement

Despite their frustrations with the current state of water in Minnesota, many stakeholders said that significant improvements were possible. Stakeholders across sectors knew about existing policy solutions—or at least a baseline menu of options—from cover crops that cut erosion to sustainable practices that limit nitrate fertilizers on crops. Yet they said achieving these policy solutions would require a political will that can match the scientific knowledge.

“We’re starting to have the conversations needed to make real progress on water quality. But the urban/rural conflict is not helpful. We need to look past that dynamic to make progress.”

– STATE GOVERNMENT STAKEHOLDER

“There is a great opportunity to work in a more coordinated way. If we can do that, we have a great shot. But we’ve got to capitalize on the economics of water.” – ENVIRONMENTAL ADVOCATE

“The Legacy Amendment passed during the Great Recession. When we make the case for water, Minnesotans show up to support it. That makes me optimistic.” – RURAL THOUGHT LEADER

“I think over the next 10 years we’ll be in a much better spot. We’re making good headway in our conversation with the agriculture sector.” – ENVIRONMENTAL ADVOCATE

► Addressing Agriculture Runoff and Addressing Aging Infrastructure Were Seen as the Two Most Important Levers for Improving Water Quality

Only two respondents offered suggestions outside of these focus areas, and the focus on agriculture and infrastructure held true among respondents in northern Minnesota and the metro area as well as in central and southern Minnesota. On the agriculture front, only one respondent suggested market-based incentives as an important strategy for incentivizing different agriculture behavior. Suggestions that were more common were perennial crops and a revised crop rotation system. Respondent priorities included:

Diversifying Agriculture

“Soil health initiatives and perennial crop cover are the only way we’ll improve waterways and lakes. We need to get farmers to understand they can farm differently and not use commercial fertilizers—that will be key.” – LOCAL GOVERNMENT STAKEHOLDER

“We can have more farmers using cover crops, diversifying species, and introducing livestock onto the land.” – AGRICULTURE STAKEHOLDER

“The biggest lever for improving water quality is changing agriculture, and there is one basket of solutions: transforming the agriculture system to a mix of perennial crops.” – ENVIRONMENTAL ADVOCATE

Investing in Water Infrastructure

“In rural communities it’s all about infrastructure. The upgrades are expensive and small towns don’t have the resources. How can cities sell the increased water costs to their residents? That’s a hard one. In the Upper Sioux Community, they just made huge investments in their water system, and it’s making a difference. For [the tribe], water is a [cultural] value.” – RURAL THOUGHT LEADER

“About 15 years ago, Monticello, Big Lake, and Becker were denied an economic development permit because of noncompliance on a shared water system. One community lost out on a business because of that. Water and discharge systems are important issues for small towns that have real effects.”
– RURAL THOUGHT LEADER

► **Stakeholders Cited a Diverse Mix of Information Sources for Understanding Water in Minnesota**

The specific go-to information sources varied by constituency. For example, among advocacy-oriented environmental stakeholders, Minnesota Environmental Partnership, Friends of the Mississippi, and the Land Stewardship Project were mentioned as go-to information sources on water and water quality topics. However, state and local government leaders, as well as rural thought leaders, referenced local and state agencies as reliable sources of information on water issues. Rural thought leaders and agriculture respondents also emphasized the importance of local information sources on water. Watershed districts, soil and water districts and the Board of Water & Soil Resources were the most consistently cited organizations among non-advocacy respondents.

“Land Stewardship Project, Friends of the Mississippi River, and Minnesota Environmental Partnership have been most strategic on shifting policy.” – ENVIRONMENTAL ADVOCATE

“There’s a cluster of easement groups—Land Stewardship Project, Nature Conservancy, and the like—that is using market forces for improving water quality. That’s important work. Pheasants Forever is a statewide group with a strong network. Corn Growers are a huge player.” – ENVIRONMENTAL ADVOCATE

“BWSR and the state government know a lot, but good information starts through the partnerships on the ground created to address a specific goal. I look at co-ops and engineering firms. We need those public-private partnerships.” – AGRICULTURE STAKEHOLDER

“I look to state agencies and watershed districts. The watershed districts are where good ideas are born. In terms of nonprofits, I respect Fresh Water Society, Conservation Corps, youth development groups like Wilderness Inquiry, and Urban Roots in St. Paul are developing the next generation.”
– RURAL THOUGHT LEADER

“Right now the commodity groups are doing good work—the Minnesota Corn Growers and co-ops. The University of Minnesota and MnSCU have pockets of good data too. BWSR [Board of Water and Soil Resources] has a lot of data, but there’s a mistrust of data from the government. Nature Conservancy is an environmental group I would trust.”
– AGRICULTURE STAKEHOLDER



Reframing Water Policy In Minnesota

► Ultimately, Stakeholders Saw a Need for Creating Incentives, Awareness, and Alternate Strategies to Advance Water Policy

In recent years, policy debates like the Buffer Initiative and PolyMet mine have taken a decisive and sharp tone. Stakeholders of all perspectives recognized that such sharp politics were not always helpful for developing statewide water improvement strategies that bridge, rather than escalate, the increasingly partisan tenor of policy discourse. Alternate strategies proposed by respondents were diverse and constructive:

“I think about drunk driving as the best public example. Now that’s taboo—no one would dare. But that’s an example of a public campaign that combined policy and awareness and really changed the way people behave.” – PUBLIC HEALTH STAKEHOLDER

“We have enough science on water quality. This isn’t a data problem, it’s a people problem. We’ve got to get the economic and regulatory drivers in place to help make water cleaner.” – STATE GOVERNMENT LEADER

“We need more market-based solutions for farmers to practice differently and cleaner. We have lots of sticks right now, but no carrots. I hope we can rethink how we tackle problems—rather than government-driven programs, we think about the economic drivers behind the problems.” – ENVIRONMENTAL ADVOCATE

“We need to convene a productive conversation about agriculture runoff, and we haven’t found a way to do that yet.” – STATE GOVERNMENT LEADER

“I hope state leaders will think about investment in innovation strategies, and incubate successful ideas. Look at what ClearWay did with smoking. Their approaches were contemporary, not just preaching. They gave real life examples, and people changed as a result. What are the small things we can do to improve water? That’s worth understanding.” – PUBLIC HEALTH STAKEHOLDER

“We need to take a big step back and look at the big picture. Otherwise little programs like Buffers won’t matter without a holistic water management plan. Statewide water plans in Arizona and New York are good examples. We have watershed districts and a lot of the basic ingredients for a statewide plan, but it’s too fragmented to make an impact.” – ENVIRONMENTAL ADVOCATE

“Mitigating water quality must not be an urban vs. rural issue. We can’t draw the political lines where they’ve been. It won’t work.” – RURAL THOUGHT LEADER

► Local Government Was Seen as a Frontline Voice on Water by Many Respondents

Metro area respondents noted that water quality issues in core cities were not as precarious as in many rural communities, and stakeholders of all perspectives recognized that water service was a basic function of municipal government. It’s the small, rural communities’ struggle to maintain effective drinking water and wastewater services that most respondents saw as the greatest need and opportunity.

“With the Legacy money in the field now, there are a lot of nonprofits that go off and do their own thing without working with local governments and knitting conservation into the local community. That can create animosity and hurt us, I think.” – ENVIRONMENTAL ADVOCATE

“Cities and counties are on the front lines of water. [It’s] one of the basic functions of a city government. But the challenge then becomes getting good information to the cities on how water impacts people, and how it can impact health. Governments come to the table as problem solvers, and that helps. Small local governments are in a world of hurt right now.” – STATE GOVERNMENT LEADER

“We recently did a study of the sewer system in [town], with a population of 400. These pipes are from 100 years ago and they are leaking. But we don’t have a population base or the capital to take on updating infrastructure or sewer lines. I appreciate Governor Dayton saying that we need to do something to help small towns.” – LOCAL GOVERNMENT LEADER

“In general, cities and counties don’t have a big role to play in agriculture. Most of Greater Minnesota gets its water from wells, which is subject to pollution from agriculture. The government’s role is to test water, make sure it’s protected. Maybe one thing they can do is pursue an aggressive zoning policy. But in this political environment, there’s not as much openness to regulatory approaches.” – ENVIRONMENTAL ADVOCATE

“Local governments are on the forefront of water. I’m working with some watersheds on the One Watershed / One Plan initiative. The question in front of many watersheds is: How does health and human services trump water quality? In the state’s general fund, less than 2 percent goes to agriculture. Those dollars from the state tend to translate into capacity at the county level, and that’s not a lot of capacity to address these issues.” – STATE GOVERNMENT LEADER

“Cities are critical because they have the majority of people. Urban people are underwriting the regulatory burdens that rural Minnesota has avoided. The 2030 census will show a new distribution of our population. Cities have to be at the table because that’s where all the people will be.”

– ENVIRONMENTAL ADVOCATE

“Cities and counties have an important role to play, but education on that role needs to get elevated through their associations. We need to help them build a deeper awareness of water issues and what’s going on. Local government leaders have a lot on their agendas and a passing understanding of most issues. But absolutely they have a role to play.” – RURAL THOUGHT LEADER

► **Water Quality Is a Sensitive and Growing Priority for Small Towns in Greater Minnesota, Particularly Along the Minnesota River Basin.**

The declining water quality in the Minnesota River Basin was an issue that escalated over the course of the interviews. In December, the Brown County Commission declined a grant from the Minnesota Department of Health that would have allowed the Minnesota Department of Agriculture to test nitrate levels in area water. The Farm Bureau sent staff to the County Commission meeting, and an agriculture consultant providing testimony at the meeting said the purpose of the grant and testing was “to trigger regulation.” This one case was referenced in several interviews and highlights the trends and tensions that arise around water quality, especially in agriculture areas.

“Building community capacity to address water quality is very important. In small communities, their water staff doesn’t always have the capacity to deal with upstream issues.” PUBLIC HEALTH LEADER

“The Minnesota River Basin is poisoned. But how can we incentivize agriculture to participate? One of our biggest goals is to set up a Minnesota River Basin discussion that can bring agriculture to the table in a productive way.” LOCAL GOVERNMENT LEADER

“There are examples of communities coming together to address clean water. In Worthington, Pheasants Forever, Lincoln / Pipestone Rural Water, Legislative-Citizen Commission on Minnesota Resources [LCCMR], Board of Water and Soil Resources [BWSR], and others worked together to create a wellhead protection plan. It was a great community effort that made a real impact.” PUBLIC HEALTH LEADER

► **Respondents Saw Business as Having Two Important Roles in Improving Water Quality: Supply Chain Influence and Attracting Talent**

Attitudes toward and expectations of business’s role in water quality varied by geography, rather than by sector. Northern Minnesota respondents emphasized the importance of natural resources like lakes and the Mississippi River as a talent recruitment tool. The proposed PolyMet mine was mentioned in two interviews—in both instances, northern Minnesota residents said that the proposal was highlighting a tension between natural resource extraction and the tourism industry of the region that depends on clean water and scenic spaces. Southern Minnesota and environmental respondents, on the other hand, talked about agriculture supply chains and large corporations’ potential bully pulpits as being important levers in a strategy to encourage sustainable agriculture and clean water.

Attracting Talent and New Economic Development

“Take the Holiday Inn in St. Cloud as an example. It sits on the river, but the big ballroom windows overlook a parking lot. Back in the 1970s when the building was built, economic development was all about smokestack chasing, and the river was a dumping ground. It was something we turned our backs to. Today it’s different. Today we’re attracting workers who want to be near outdoor recreation and natural resources, and the beauty of the river is our draw.” – RURAL THOUGHT LEADER

“I hope that someday Minnesota communities will be able to attract new businesses on account of our water. Minnesota communities should want to be the community with access to clean, reliable water. Minnesota is home to businesses that clean water worldwide—Ecolab, Pentair, and the business hub at the University of Minnesota. Our water can be a strength for business in Minnesota.” – ENVIRONMENTAL ADVOCATE

“One area that I hope business can support water is through being part of a water ethic. I hope that businesses can look at their supply chain, how they’re buying products and how they’re discharging water.” – ENVIRONMENTAL ADVOCATE

“Some communities are hitting their capacity for growth because of water. Can that be an opportunity to look at better water management practices, both for businesses and the community?” RURAL THOUGHT LEADER

“If there is a water shortage coming, education is needed. But quality water is also key. Conservation of resources is good stewardship. Extending LEAN thinking to wastewater treatment may not be expensive today, but could be seen as expensive down the road.” – BUSINESS LEADER

Agriculture Supply Chain Influence

“When Walmart said that it wanted to buy organic produce, there were shudders across the food chain. That’s a huge impact. We can’t regulate ag to make changes—it’s not politically feasible—but we can influence the supply chain.” – ENVIRONMENTAL ADVOCATE

“Land O’Lakes’ source water protection program is so important. I hope other businesses follow their lead.” – PUBLIC HEALTH LEADER

“The public is more conscious of health, food, and the like. Look at General Mills and their requirements for the sustainability of their supply chain. The food industry needs to understand the impact of farming practices on water. Agriculture doesn’t have the traditional chain of command that you have in mining or a traditional factory or something.” – STATE GOVERNMENT LEADER



► Respondents Viewed Agriculture as Impacting Water in Three Ways: Irrigation, Soil Health, and Nitrate Pollution

Increased irrigation was seen as draining water supplies in some regions, potentially emptying wells prematurely. This was a topic of greater focus for respondents in western and southwestern Minnesota. Soil health and nitrate pollution were connected, but respondents talked about them in different ways. Concerns about soil health were expressed in terms of heavy rains that cause runoff, or lack of crop rotation and use of fertilizers that decrease the soil's health over the long run. Nitrate pollution was recognized as stemming from some of the same drivers as soil health, but respondents' interest and focus were on quality drinking water and river health, for example. Large farm operations and feedlots were an added focus here. Soil health was a leading frame for respondents working on land practices (e.g., soil and water conservation districts), while nitrate pollution tended to be the lead frame for rural thought leaders, city and county local governments, and state government leaders.

"Agriculture has a paramount role to play. We're the users and benefactors of water. We're also under the gun. Not all of us are good players, but we have a long history in our communities. We need to get past this idea that your neighbors are your neighbors but also your competition. We need to work together on water." – AGRICULTURE LEADER

"Nitrates are a huge issue in our region because of the forests that have been cleared for potato production. Potatoes go straight into the water table, and the consequence is both increased nitrate contamination in our water table, and fewer opportunities for the forest to combat greenhouse gas emissions." – RURAL THOUGHT LEADER

"We have two challenges related to agriculture's role in water quality: First, high rainfalls and drought impact water quality. It's increasing the need for irrigation systems, and there's a growing concern among producers that there won't be enough water for all. Second, climate change is creating greater rainfall events. That means soil fertilizers are being pushed off the ground and into our water supply." – STATE GOVERNMENT LEADER

"A small percentage of crops are irrigated, but that number is growing. We're seeing the first signs of water supply stress in communities that never had water needs before." – ENVIRONMENTAL ADVOCATE

"Another issue [in Greater Minnesota] is mega dairies and mega hog operations, as they need bigger wells and water. Waste management of manure on land is a growing need, and I don't trust big corporate farming operations to be good stewards of the land." – LOCAL GOVERNMENT LEADER

“There’s a growing interest in precision agriculture where farmers can target chemicals to specific areas of the field, rather than blanket coats. The cost savings of this approach is proven, and drone technology allows farmers to target how fields are sprayed.” – RURAL THOUGHT LEADER

“Individual farmers have a stewardship ethic that’s huge. For big corporate ag, access to water is one of the key pieces of their business model. We haven’t appropriately priced water for how these new actors are stewarding the land.” – ENVIRONMENTAL ADVOCATE

► **Agriculture’s Role in a New Conversation Around Water Quality Was Seen as Significant, but Different, Across Large and Small Growers**

Large farms with thin margins and non-operator landowners were seen as less stewardship oriented than smaller family farms [less than 400 acres] of the past. With fewer family farms being passed on to the next generations some respondents saw attention to soil health and crop rotation becoming a lower priority. Still, small farmers and young farmers were seen as playing an important role in stewarding land.

“Agriculture has to be at the heart of a new conversation on water quality. [Organization] is working that direction of engaging agriculture in ‘how do we do this?’ Environmental groups alone can’t deliver.”
– ENVIRONMENTAL ADVOCATE

“We’ve painted farmers into a corner to the point they feel a need to punch back. Shaming them is not helpful. The farming industry has a problem; we’re on year seven of losing money, though that’s not something they talk about publicly. Something has to change. The next generation of farmers needs help finding a way to do farming profitably, and that might mean going back to the future. Getting away from row crops and into growing food.” – ENVIRONMENTAL ADVOCATE

“I believe that generally people want to do the right thing. If the Farmer’s Union or some group could provide farmers with a relatively salient practice that helps water, I think they would use it.”
– PUBLIC HEALTH LEADER

“Agriculture’s role is a big one. The ability to feed the world and have an economic impact is key. But how can we make water quality part of farmers’ self-interest? If I’m not mistaken, 70 to 80 percent of farms in southern Minnesota are large operations or corporate farms. The idea of family farms is an artifact in our imaginations. When your kids are going to inherit the land, you think about it differently. Now, we need new market forces to step in and encourage something different in terms of protecting and sustaining water quality.” – RURAL THOUGHT LEADER

“A lot of the work I do with the farming community is in the Cities. That’s where the farmland is owned. [The separation between land ownership and land stewardship] leads to a breakdown in community in some respects.” – ENVIRONMENTAL ADVOCATE

“Des Moines is the poster child for tensions between source water pollution and clean water in a community... Local public health is the face of prevention, and they haven’t been as engaged in water. Corn Growers recognize that this is an ongoing issue. The interests we need to understand and connect to is the agriculture community. They have to be at the table or we won’t succeed.” – PUBLIC HEALTH LEADER



► **Sportsmen and Anglers Were Seen as Having an Important but Declining Role in Supporting Water Quality**

Respondents saw organizations like Pheasants Forever and Ducks Unlimited as advocates for conservation land practices and an entrée into better relationships with the agriculture community. However, some respondents saw the power of this constituency declining in recent years due to an aging membership base and changing public interests.

“As a hunter, I think this is a silly question. I have seen places where you can’t hunt next to factory farms. As more land goes into fewer and fewer hands, people are less able to hunt on private land.”

– AGRICULTURE LEADER

“Across the state, the economic impacts of hunting and fishing are big. A big percentage of the hunters we get in central and northern Minnesota come from the metro area, so it’s a big influx of dollars, too.”

– LOCAL GOVERNMENT LEADER

“Hunting and fishing is a rich part of Minnesota’s identity and heritage. I don’t see hunting continuing on the horizon, but in the conservation community there’s an interest in making the connection to nature.”

– ENVIRONMENTAL ADVOCATE

“I go to meetings, and I’m 55 and the youngest guy in the room. Ducks Unlimited and a lot of these groups are trying to figure out how to make the transition to folks in the cities—how to translate why land use matters to water quality.”

– ENVIRONMENTAL ADVOCATE

“Hunters and anglers have a huge role to play. The majority of farmers are sportsmen, too, so they have positive relationships with farmers. It’s a better entrée than [known environmental or farm groups].”

– RURAL THOUGHT LEADER

“Overall they’re weak at the Capitol. They’re an effective but shrinking group; noisy but status quo.”

– ENVIRONMENTAL ADVOCATE

► **Public Health’s Potential Contributions to an Improving Water Quality Strategy Were Significant, but Not Top of Mind**

A majority of respondents quickly made a direct link between the health of water and the public’s health—even citing healthy drinking water as the origin of public health. However, only public health advocates started a conversation about water from the perspective of health. Others focused on the tensions of agriculture pollution instead. Equally noteworthy, public health stakeholders interviewed did not have a deep understanding of the state of nitrate pollution present in modern farming. Instead, awareness centered on contaminants in fish (e.g., mercury), the impacts of opioid disposal in the water, the health and viability of a city water supply, or other sources of water contamination.

“We can’t buy our way out of the problem of declining water quality. The [Legacy Amendment’s] Clean Water Fund started the move toward a healthy water focus, but historically, public health has had an impaired-water focus. The Clean Water Act was about treatment, rather than prevention. We’re just starting to think about prevention and protection with our public water supplies and wells. But the public demand for clean water isn’t there.” – PUBLIC HEALTH LEADER

“For our members, it’s an issue of ‘Can I drink my water?’ The idea of “water is life” is a message that resonates with our members.” – ENVIRONMENTAL ADVOCATE

“Flint, Michigan, was a wake-up call in terms of the health of water. What happens to a community when you can’t trust the water? It’s a basic function of government and of life. A lot can go wrong if that trust is gone.” – STATE GOVERNMENT LEADER

“The first role of public health is to do no harm. The [now former] commissioner of health has been helpful in his willingness to be a voice of concern on nitrates. I’d like to see [the departments of] health, agriculture and natural resources break down their silos around clean water.” – ENVIRONMENTAL ADVOCATE

“You’d have to talk to [regional healthcare system] about [contamination of water]. They keep records back generations. In my home township, six people in a 10-mile radius, including my wife, died of pancreatic cancer. My wife grew up on a farm eight miles from ours. That’s not a prevalent cancer. That has led me to think there might be something in our water supply. At least it kind of makes you wonder.” – RURAL THOUGHT LEADER

“We need to elevate water as a health issue. Efforts have been made to bring water to SHIP [Statewide Health Improvement Program, a statewide public health initiative to change policies and public behaviors for better health], for example.” – PUBLIC HEALTH LEADER

“If there’s a degradation of water quality, how does that correlate with health issues? There is such a separation of what people know about their water and their water usage. Public health could have a role in bridging that awareness.” – LOCAL GOVERNMENT LEADER

Key Takeaways

1

Geography and Historical Narrative Frame Perspective on Water

All stakeholder groups showed a predictable understanding of water through the lens of their respective interests. Agriculture groups thought about land use and farming. Public health thought about the health impacts of poor drinking water quality. Local governments often thought about the costs and implications of sewage or drinking water system failures. Beyond these interest-driven perspectives, two underpinning frames stood out:

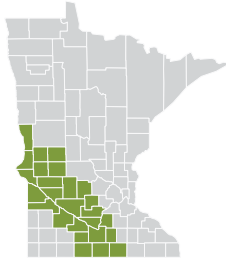


North vs. South. Minnesota’s geography and water are drastically different between Brainerd—the region of lakes—and Mankato—the region of cornfields. The responses of community leaders not connected with water or agriculture reflected these differences. Northern Minnesota respondents focused on the lakes and rivers, and the tourism industry and quality of life related to them, to frame conversations about the importance and relevance of water quality. In southern Minnesota, the innate tension between the region’s local economy and the desire for a healthy water supply came across clearly in the comments from that region.



Minnesota: Land of 10,000 Lakes. Water is at the heart of the state’s identity through its lakes and the Mississippi River. Respondents working at a statewide level and/or not working closely on water policy quickly turned to this identity narrative in explaining the importance of water quality for almost any topic. Almost no respondents working outside of agriculture, water policy, and/or southern Minnesota framed their perspectives in terms of immediate agriculture pollution. Instead, they relied on frames of Minnesota’s lakes, recreation and outdoor living, and general identity as a water state.

2

The Policy Focus on Agriculture Concentrates the Narrative and Political Power in a Pro-Agriculture Region

The Minnesota River Valley Watershed and the southwest corner of the state are home to a small fraction of the state's population, just under 5 percent, if Scott and Carver Counties are not included. It's a small geographic and population area to focus work, and agriculture is a primary economic driver in the area. While Minnesota's agriculture economy extends beyond the river valley, this region of the state tends to be a focal point for water discussions. The small population translates into a relatively small number of legislators representing the area, and the region's heavily agriculture economy likely engenders sympathy and concern for the needs of farmers among area representatives. The implication of this dynamic for water can be a challenging policy environment at the legislature: Otherwise-neutral legislators are likely to defer to local representatives on sensitive topics, and the region's representation is unlikely to favor water over agriculture, in general.

3

Outside of Health Respondents, No One Talked About 3M

The trial for Minnesota's \$5 billion lawsuit against 3M over water contamination with industrial chemicals in the east metro began and ended on February 20, 2018, after nearly eight years of winding through the judicial system. As a result, \$850 million will be made available for drinking water system improvements and natural resource preservation in the east metro area. Any remaining funds will be made available for natural resource investments statewide. It's important to note that media coverage of the lawsuit around the time of the interviews did not solicit comments on the topic from respondents outside the health field. This stands out, in part, because of the lawsuit's significance for metro area drinking water. As Minnesotans look to find statewide water solutions, bridging the urgency and demand for clean water between rural and urban communities could be important.

Conclusions

Water is a key ingredient for top-priority issues—but it is less understood as a top-priority issue in its own right.

From health to workforce and economic development, consistently abundant and clean water contributes to top-priority issues across Minnesota. Likewise, changes to the water ecosystem from floods, droughts, and extreme rain events are recognized as one of many impacts of climate change. Water plays a role in many of Minnesota's top issues, but it's less well known as an issue in its own right.

Perceptions of water's impact across sectors are limited and inconsistent.

Those working in areas most directly impacted by water quality issues, such as environmental advocates, agriculture leaders, and local governments, hold a clear and deep understanding of water's impact. These stakeholders also have passionate and well-formed opinions about how Minnesota can protect water quality and abundance for the foreseeable future. However, constituencies not directly involved in water quality have limited understanding and malleable opinions of many key water topics. The strong discrepancy in understanding of both water problems and potential solutions points to the important role the McKnight Foundation might play in establishing a consistent base of fact across a broader range of stakeholders.

Information sources fragmented by constituency have the potential to perpetuate inconsistent perceptions.

Stakeholders interviewed consult different sources to establish the basic facts of opinions on water topics. For example, many water advocates consult the publications of other water advocates. Agriculture stakeholders reference local data from co-ops and engineering firms. State agencies are a consistent data source across constituencies, but especially among rural thought leaders and those not as close to water policy topics. This information fragmentation points to the importance of establishing a common fact base to enable future policy solutions.

Existing water policy narratives and frames are heavily weighted toward economics.

The economics of agriculture, and the economic viability of sustainable agriculture processes are a central starting point for both water advocates and agriculture stakeholders. Local governments also focus on the economics of water in their interest—the state will need more than \$5 billion in new infrastructure in coming years to meet the demands of aging systems’ accelerated wear and tear as a result of cleaning water contaminated by agriculture pollutants. In each instance, arguments about water are entirely about economics, leaving the value of clean and abundant water as a secondary argument. This presents an opportunity for elevating water’s value.

Minnesota has a statewide “10,000 Lakes” identity, but water contamination concerns and water policy agendas are focused more narrowly.

In addition to elevating water’s value, considering where water’s support will come from is important. The Minnesota River Valley is home to only 5 percent of the state’s population, yet it’s a focal point for the statewide water debate, creating an implicit focus on agriculture and farmers among those closely tied to water issues. More casual observers of water policy, however, still turn to Minnesota’s long-standing identity as the “Land of 10,000 Lakes” as a frame for thinking about the state’s water policy. This has an important implication for statewide water policy: only a few legislators and decisionmakers can call the people at the heart of water policy debates their constituents. Casual observers’ lack of knowledge about agriculture’s impact on water can translate into legislative apathy, or at least a lower prioritization of water policy, among legislators in other areas of the state.

Expanding the base of stakeholders who see clean water as part of their success offers the greatest opportunity for de-escalating water politics and advancing statewide clean water policy.

Current water policy debates have a relatively narrow focus and a limited number of participants -- cultivating an expanded base of supporters for water will be an important component of any strategy to successfully advance comprehensive clean water policy.

ABOUT THE REPORT

The McKnight Foundation commissioned this report to inform our program strategies and share knowledge with others working in this field. The research and opinions presented in this report are those of the author and do not necessarily reflect the official policy or position of the McKnight Foundation.

ABOUT THE AUTHOR

Stephanie Devitt is a principle at [SDK Communications](#). Since 2012, the company has blended big picture strategy with savvy implementation to help clients succeed on the people side of change. Her work spans from public affairs to corporate social responsibility, and from coalition management to change strategy.

ABOUT THE MCKNIGHT FOUNDATION

The McKnight Foundation, a Minnesota-based family foundation, seeks to improve the quality of life for present and future generations. Program interests include regional economic and community development, Minnesota's arts and artists, education equity, youth engagement, Midwest climate and energy, Mississippi River water quality, neuroscience research, international crop research, and rural livelihoods. Founded in 1953 and independently endowed by William and Maude McKnight, the Foundation has assets of approximately \$2.3 billion and grants about \$90 million a year.