Clean Water Council Meeting Agenda Monday, June 16, 2025 9:00 a.m. to 2 p.m.

IN PERSON at MPCA offices in St. Paul with Webex Available (Hybrid Meeting)

9:00 Regular Clean Water Council Business

- (INFORMATION ITEM) Introductions—please declare any perceived or actual conflict of interest
- (ACTION ITEM) Agenda comments/additions and approve agenda
- (ACTION ITEM) Meeting Minutes comments/additions and approve meeting minutes
- (INFORMATION ITEM) Chair, Committee, and Council Staff update
 - Policy Committee Update
 - o Budget and Outcomes Committee Update
 - Staff update

9:30 (ACTION ITEM) Engagement Plan

The Engagement Ad Hoc Subcommittee has finalized the draft Engagement Plan following input from the March Full Council Meeting and subsequent discussion with the Policy Committee. It is being presented here with changes, and a vote to adopt this plan is requested.

10:00 (DISCUSSION ITEM) Clean Water Fund Outcomes

Council Members will be asked to review the summaries of the meeting exercises from May for accuracy and, as necessary, add new ideas or further clarity to the content.

10:45 Break

11:00 (DISCUSSION ITEM) Increasing input for the Clean Water Fund Outcomes discussions

Given where we are in the strategy year and the activities outlined in the Engagement Plan, this agenda item merges the two previous ones together. Council Members will be asked to consider how to solicit external input from interested parties over the coming months.

12:00 Lunch

12:30 (DISCUSSION ITEM) Implementing the PFAS Blueprint

Following up on interest from Council Members from the May meeting, MPCA staff will provide a high-level overview of the current status of implementation of the PFAS Blueprint.

1:30 (INFORMATION ITEM) Office of the Legislative Auditor

The Legislative Audit Commission Evaluation Subcommittee has recommended to the full LAC that the Office of the Legislative Auditor evaluate the Minnesota Agricultural Water Quality Certification Program. Staff will briefly introduce the project and share how Council Members can provide input on the evaluation's scope.

- 1:45 Public Comment
- 2:00 Adjourn

Steering Committee meets directly after adjournment

Clean Water Council

May 19, 2025, Meeting Summary

Members present: John Barten (Chair), Steve Besser, Eunie Biel, Rich Biske (Vice Chair), Dick Brainerd, Gail Cederberg, Steve Christenson, Tannie Eshenaur, Warren Formo, Brad Gausman, Kelly Gribauval-Hite, Justin Hanson (Marcey Westrick), Holly Hatlewick, Sen. John Hoffman, Peter Kjeseth (Margaret Wagner), Annie Knight, Chris Meyer, Fran Miron, Jason Moeckel, Ole Olmanson, Jeff Peterson (Joel Larson), Peter Schwagerl, Glenn Skuta (Heather Johnson), and Marcie Weinandt.

Members absent: Rep. Steve Jacob, Rep. Kristi Pursell, Jessica Wilson, and Sen. Nathan Wesenberg. **Others present:** Frieda Von Qualen, Fawkes Char, Paul Pestano, Jim Stark, Judy Sventek, Marcey Westrick, Azra Thakur, Angela Preimesberger, Chris O'Brien, Renee Keezer, Cameron Gaspord, Trevor Russell, Udai Singh, Lucas Sjostrom, Tim Kelly, and April Swenby.

To watch the Webex video recording of this meeting, please go to <u>https://www.pca.state.mn.us/clean-water-</u> council/meetings, or contact <u>Brianna Frisch</u>.

Regular Clean Water Council Business

- Introductions
- Motion to approve the May 19th meeting agenda by Steve Christenson, seconded by Chris Meyer. Motion carries unanimously.
- Motion to approve the April 21st meeting minutes by Steve Besser, seconded by Dick Brainerd. Motion carries unanimously.
- Chair, Committee, and Council Staff update
 - Policy Committee Update
 - o Budget and Outcomes Committee (BOC) Update
 - Leveraged Funds Documents from the BOC included in meeting packet. It is important to see how the Clean Water Funds (CWFs) are being leveraged.
 - o Staff update
 - Jen Kader, new Clean Water Council Administrator introduction. She started on May 7th and is looking forward to the new role and connecting with folks. Paul Gardner will continue to work until June 3rd.
 - Field tour decisions:
 - A show of hands from the Council members reveal a preference of Monday-Tuesday (6) versus Sunday-Monday (5). Those that voted for Sunday-Monday, most could also do Monday-Tuesday. By not doing Sunday, it has advantages during the tourism season.
 - It will be good to connect with Council members and agency folks to look at the purpose of the field tour, look at opportunities to explore, to help choose the site locations:
 - Gail Cederberg: I think it would be good to have homework reminding us of how important it is to have clean water downstream. For me, it would be to look at the most impactful projects, which are in the works, or have been completed, while also looking at outcomes. Meeting the local folks, to hear about their work, so I can bring that message back.
 - Steve Besser: The Straight River is up there, which is a blue ribbon trout stream. There is a ton
 of groundwater irrigation there, in the northern sands, and I would like to know more about
 the impacts on that stream. I would like to learn more about that.
 - Rich Biske: I agree with Steve, that is a unique location that encompasses many things that the Council supports through funding. The information collected over the years in terms of irrigation used, water availability, the impact on nitrates, the data collected and used to information actions, and what those actions have been in the last decade.
 - John Barten: Jim Stark's group had a presentation from the Minnesota Department of Natural Resources (DNR) and the Minnesota Pollution Control Agency (MPCA) on the Straight River on how irrigations affected water flow, and how irrigation and management of lands affected the nitrate and phosphorus levels in the river system. Those presentations would be beneficial.
 - Holly Hatlewick: I would like to see both urban and rural. Also, big fund projects, that are implemented in all stages, because it all has value.

 Steve Christenson: My interest would be in projects and programs that are working, to see real impacts of the Clean Water Funds (CWFs). Secondary, would be the Straight River, potato farming, and the items Rich and Steve mentioned.

Legislative Update on Clean Water Fund Recommendations, Paul Gardner (Webex 00:39:30)

- There is a spreadsheet included in the meeting packet that goes over the Clean Water Legacy Partners Grant Program Awards for 2025 (round 1).
- The CWF recommendations were adopted in full by the Minnesota House and Senate, voted last night. There were some policy items added on. There is usually the Riverwatch added into the MPCA monitoring program. This time it was stripped out. They can still receive funding from the monitoring program, but the earmark for it was taken away. Also removed was the item that required landowners whose land was going to be restored in some way, to notify their neighbors of projects happening. Previously, this was supposed to be a public hearing, but was knocked down to a notification, but these were all taken out. The next set of recommendations do need to be submitted by fiscal year, instead of biannual. This likely will speed up the process and can be done easily. An observation, with a split house, you see more bipartisan votes.
- There are five bills I always look out for: The Legacy Bill, the Ag Finance Bill, the Environmental Finance Bill, taxes, and bonding. The Legacy Bill and Ag Finance Bill have both passed. The others are in the works.
- The tax bill will include aide for Soil and Water Conservation Districts (SWCDs). The Senate has \$14 million, while the House has \$12 million. This is usually one of the last bills.
- The bonding bill, includes funding for the public facilities authority, usually has funding for the point source implementation grant. This program helps to make sure existing wastewater treatment plants meet their effluent limit, and wastewater treatment replacements.
- For the first time since Paul Gardner has been a part of the recommendations, no one has touched the Clean Water Council's recommendations before it hits the Governor's desk.

Questions or comments:

• John Barten: This is the sixth budget cycle I have been through; this is the first time we have hit one hundred percent. It shows the work being done. It bodes well for water quality.

Changes to Fish Consumption Advice, by Azra Thakur and Angela Preimesberger, Minnesota Department of Health (MDH) Fish Consumption Guidance Program, along with Fawkes Char, Minnesota Pollution Control Agency (MPCA) (*Webex 01:02:00*)

- The program is responsible for looking at Contaminants of Emerging Concern (CEC) initiative, Health Risk Limits program, and the Fish Consumption Guidance.
- The Fish Consumption Guidance Program is an interagency effort, involving MDH, MPCA, and DNR. They work together to gather data, for what is being found in fish, statewide and water body specific. They have a range of different communication tools (website, print, etc.). It is a collaborative program, including working with the Tribes and Great Lakes Consortium. The MPCA does a lot of work on polyfluoroalkyl substances (PFAS).
- How PFAS enters Minnesota's waterways:
 - The answer is there are many ways PFAS enters water. There are direct ways, like industries that produce or use PFAS. Also, with PFAS treatment materials and food packaging. If it is not being directly discharged by an industrial facility, it can be discharged from municipal wastewater, it can come from landfills, either leachate or historically unlined landfills. Another well-known source is firefighting foams. There are many ways for PFAS to get to water. That is how it gets into fish.
- Our PFAS journey in Minnesota, started in the early 2000s. A disposal facility started reporting PFOA and PFOS, and it was discovered in nearby drinking water. Further investigations found PFAS throughout Minnesota. Thousands of PFAS studies have been published. A health-based guidance evolves to reflect the new science. There has been a legacy and emerging PFAS found at concentrations of concern in multiples places around Minnesota.
- In 2021 Minnesota's PFAS Blueprint supports a holistic and systematic approach to address PFAS. It can be found here: <u>https://www.pca.state.mn.us/air-water-land-climate/minnesotas-pfas-blueprint</u>.
 - There are ten topic areas: Preventing PFAS pollution, measuring PFAS effectively and consistently, quantifying PFAS risk to human health, limiting PFAS exposure from drinking water, ensuring safe

consumption of fish and game, limiting PFAS exposure from food, understanding risks from PFAS air emissions, protecting ecosystem health, remediating PFAS-contaminated sites, and managing PFAS in waste.

- How MPCA selects waterbodies for sampling and monitoring:
 - Surface water (including water column and fish tissue samples). The monitoring supports water quality standards assessments and restoration efforts. The internal and/or external requests may be fulfilled depending on resource availability.
 - Ambient groundwater samples are collected across the state each year.
 - Both source water and groundwater may be subject to additional monitoring in areas with known or suspected contamination. The MPCA and MDH programs collaborate when drinking water from private wells is impacted.
- Reducing or removing PFAS from the environment:
 - PFAS are hard to remove form the environment and may be even harder to destroy. Pilot-scale studies have shown promise, but technology hasn't been proven at scale. Local example: SAFF (surface active foam fractionation) at Tablyn Park, Lake Elmo area. In the water, they make it foam a lot, and the foam contains the PFAS, so when they remove the foam, it removes PFAS.
 - Therefore, pollution prevention is crucial. Evidence that PFAS concentrations in fish decrease when the source is removed. Amara's Law and other prohibitions will eventually lead to a decrease in new PFAS in the environment.
- April 2025 Updated Fish Consumption Guidance
 - Fish are an important part of a nutritious, well-balanced diet. Fish are part of many Minnesotan traditional and cultures. Fish consumption guidance provides Minnesotans with the information they need to make informed choices.
- The MDH, MPCA, DNR all work together to review contaminants in fish.
 - They collect and analyze fish for mercury, polychlorinated biphenyls (PCBs), and PFAS. They test fish from many waterbodies with support from the MPCA and the DNR monitoring activities. They analyze levels of contaminants through state and contract labs. The MDH develops methods to balance benefits of fish consumption with risks posed by contaminants. They update guidelines on the MDH's webpage and post with the DNR LakeFinder.
 - Certain waterbodies in Minnesota have been studied for PFAS. Some fish show elevated concentrations in ten counties. The MDH updated guidelines are more protective for people eating fish. Counties include the Twin Cities metro area and Douglas, Martin, McLeod, and St. Louis.
- Exposures to PFAS have been associated with health effects. There is an immune suppression (decreased antibody production), developmental effects (lower birth weight), and changes to live function (higher cholesterol and liver enzymes).
- The MDH is working with the DNR to post Fish Advisory signs at impacted water bodies.
- The MDH develops fish consumption guidance for Minnesotans:
 - Some waterbodies have lower levels of PFAS, and other contaminants follow Statewide Fish Consumption Guidance.
 - Some people are more sensitive to negative health effects, including people who are or could become pregnant, people who are breastfeeding or plan to breastfeed, and children under age 15.
 - The maximum number of servings recommended per week or month varies by fish species caught in the same waterbody.
 - The MPCA completed an important study of PFAS in fish from the Lake Superior Basin. The MDH now recommends rainbow smelt can be eaten up to one serving per week (formerly, one serving per month). Note, a serving size of fish is eight ounces for an average adult (150 pounds).
 - The MPCA has a Fish Consumption Guidance Website: <u>https://www.health.state.mn.us/communities/environment/fish/index.html</u>. Minnesotans can also use the LakeFinder website to find guidance for lakes.
- PFAS accumulation in wildlife:
 - PFAS are detected in wildlife, including game animals like deer and waterfowl. Nearby state (Wisconsin and Michigan) have issued consumption advisories for some game animals hunted in specific areas with

(known) significant PFAS contamination. The MDH has not, to date, issued any consumption guidelines or advisories associated with game animals.

- PFAS are in many things, not just fish. It has been found in air, water, soil, wildlife, food, breastmilk, and humans. It comes from PFAS production, product manufacturing, products we use, and product disposal.
- People can take steps to reduce exposure to PFAS:
 - Limit the use of consumer products that contain PFAS. In 2025, Amara's law prohibits the sale of products with PFAS in Minnesota.
 - Follow MDH Fish Consumption Guidance.

• The MDH will provide updates to guidance as we learn more about PFAS and Health.

Questions:

- Steve Besser: You talked about the bio cumulative effects of heavy metals in fish, what about PFAS? Does that accumulate? *Answer:* PFAS is a problem. There are three types of main chemicals in the fist, they stick to proteins in blood. So, you cannot clean your fish to reduce.
- Gail Cederberg: Is there a way to make it easier to find the additional fish consumption guidances? It is many steps to find these. There has got to be an additional way to get the information to the fish folks. *Response:* It is a few clicks to get there, but you can find the information. We need to work on making it faster. Some states do a regional guidance, and each has the information provided.
- John Barten: Where is the PFAS going or moving? *Answer:* Transportive PFAS is a growth area. PFAS is not being destroyed, it is moving through the systems. It is hard to destroy.
- Brad Gausman: Are there any lakes in the state with a solid "no consumption"? *Answer:* Not many, but a few. Lake Elmo area due to the 3M disposal sites (Lake Elmo Park to the St. Croix River). Other places it is for people planning pregnancy or for children. The PFAS found in fish, take time to build up in the bodies.

CWF Outcomes (Webex 02:02:30)

- This is a facilitated discussion. Paul will be talking with folks on the Webex and include their notes. This will be a discussion on CWF outcomes. Over the last several months, the Council has talked about wanting more discussion on where we have been, where we are now, and where will we want to go. This is time to dig into those conversations. Instead of having presenters, it will be input from everyone at the meeting today. The first part is looking backwards. There are two questions:
- First question: <u>If you were asked today why the Clean Water Fund has been valuable, how would you answer?</u> <u>What would you point to, or describe?</u> Council members spent time writing out their answers on their own for two minutes, then spent time discussing their responses with neighbors for a few minutes. Jen Kader will aggregate the responses for follow up.

Reponses:

- \circ ~ In a time of uncertain federal funds, we still have local resources to advance our work.
- The CWFs is supported by residents of the state, and that invests people in the ongoing work for solutions, because it is Minnesota's money.
- We have invested in the monitoring and measurements, so we can show improvements of water quality.
- The need for water agencies to collaborate and the use of CWFs, has led to extended collaboration way beyond CWF programs.
- The CWFs have led to engage state leaders.
- Private well quality was largely unknown before CWFs.
- CWF was the driving force behind eliminated lead service lines ahead of the federal government.
- That all HUC-8 watersheds in Minnesota have a plan with One Watershed One Plan (1W1P), so they can target how to spend funds, there is local buy-in and local priorities.
- We know that we help Minnesota farmers adopt soil health practices. This work has helped up be more proactive than reactive in our work when it comes to the states needs like natural resources and funding.
- That the 1W1P created partnerships across the state, and it has given Minnesota a better picture of water quality across the state, and capacity to address those challenges.
- We now have some funding for implementation of the buffer law. We are in 99 percent compliance.
- Agency collaboration beyond the CWFs.
- Building community capacity, which can continue to build.
- o We have funded research (i.e., mussels and water quality)

- There is diversity in the Council, and that diversity of thinking brings forward good projects, which also makes best use of our funding. The Council brings people together, specifically a lot of expertise.
- o The Council reaches across the state, which is huge.
- The work reveals the issues we are facing regarding water quality.
- \circ $\;$ There are examples of success stories. We can do better, but we are continuing to work on it.
- The work of the TMDLs, WRAPS, and GRAPS are great.
- We Are Water is a way to inform communities.
- o Implementation through the WBIF.
- \circ $\;$ We are ready to launch into strategy because of all of our baseline data.
- We have been able to develop new grants to fill needs (like the soil health equipment program).
- Forever Green Initiative has come into the solution and been a part of the state's strategy.
- We have large scale goals (like preserving 200,000 acres of upper Mississippi River Basin). The CWFs have allowed us to do that, which is a huge improvement.
- The chloride program.
- An aquifer level funded through the DNR has been a huge improvement.
- The unmet needs that do not fall under another program or interest.
- Clean Water Legacy Partners Grant has allowed others to receive CWFs.
- The improvements in "swimmable" water quality. Twenty years ago, about sixty percent of the waters were swimmable, today it is closer to eighty percent. A bunch of that was fostered by programs funded by CWFs.
- The systematic approach of the CWFs is enabled. The whole is bigger than all of the parts. The CWFs have filled in the gaps, to see things come together and see progress. We have unlisted some waters. We are the envy of the nation. This helps get that work done.
- We have the scientific groups and the public together to improve water quality.
- There is never going to be enough money, but the successes of the funding help us prioritize areas to use the biggest bang for our buck, to help improve water.
- \circ $\$ We are more able to be responsive when water issues come up.
- On the ground change, and visible change, can be pointed to as well.
- o Water quality monitoring guides decisions based on science, and less on politics.
- The predictable funding allows big projects to move fast. The CWFs make shovel ready projects faster.
- \circ $\;$ The CWFs reduce risk to drinking water, whether people know about it or not.
- 1W1P, the plan will provide benefits long after the amendment.
- The CWFs leverage other dollars.
- 1W1P helps tear down barriers, brings people together on the work, and builds relationships. Sometimes the process is more important than what you end up with, which builds shared goals.
- Second question: <u>In 2034, what do you want to say we got done? What are you hoping we are celebrating?</u> Council members spent time writing out their answers on their own for two minutes, then spent time discussing their responses with neighbors (different person than before) for a few minutes. Jen Kader will aggregate the responses for follow up.

Responses:

- o De-listings and making waters more fishable and swimmable.
- o Minnesota's CWFs led to real, measurable improvements in water quality.
- A stronger foundation for long-term solutions.
- Regarding subjective criteria for success: landowners getting Ag water certification because it could make them more money and have a greater legacy to pass on to the next generation, and the other tools would fall into play; giving people the tools to solve problems; storytelling is a good way to share how change happens (like with the Ag water certification program from MDA).
- How waters are restored and repaired, and most waters are protected, that these goals are reached.
- o Do more for private waters, especially with private wells.
- Programs are solidly in place. There are funding sources to continue the work.
- o It would be good to see a way to improve stormwater quality in urban areas.

- Public perception improvement, so every Minnesotan knows about the CWFs. People need to be able to look at their lake or stream, and say "it looks better", which is a real challenge. This message needs to be communicated to the public.
- The four pillars of the Strategic Plan (drinking water, surface water, groundwater, and social support for the programs): Eighty percent swimmable, seventy percent fishable, sixty percent drinkable). For a hundred percent of our drinking water to be safe and available for residents of Minnesota. Groundwater in Minnesota is adequate quantify and safe for use by all. All Minnesotans value and take action to protect our waters.
- The iconic waters are protected (key lakes and rivers) such as: Itasca, Superior, Mississippi River, Mille Lacs, and Minnetonka.
- In addition, to the 300,000 acres of Upper Mississippi River Watershed protected and restored, that we add and additional 200,000 acres for protection.
- That we will sustain a data-based water management process, and programs that enable both economic development and water quality protection.
- Water is important for people, communities, and aquatic life. They are fishable, swimmable, and drinkable. Protections are in place to sustain them.
- Policies and programs are in place to continue or sustain effective actions supported by CWFs.
- Minnesotans know which of the clean water goals cannot be accomplished with funding alone (and what are we going to choose not to do).
- I would like to see a systemic change in tilling and cropping systems statewide.
- I would like to see measurable reductions in nitrate and phosphate in agricultural river systems, which we
 can attribute directly to Ag Water Quality Certification, or WBIF. It would be powerful to prove it, so if
 funding goes away, the legislature would have enough to continue funding the work.
- Protect at least 200,000 acres in the DWSMA acres, because it would go a long way to protecting our drinking water long term. More would be better, but at least that amount.
- Nitrate in drinking wells shows a negative trend.
- o The residence of Minnesota have confidence in the improvements from CWFs.
- No limits on fish consumption would be an accomplishment.
- We have had success with the 1W1P, so success with a second round would be good as well.
- If we figure out how to get rid of PFAS.
- o Some influence on surrounding states or nation to help set up a similar system.
- Express the balance between using water for energy, replacing coal with water. We don't know how to make this happen because there is only so much groundwater. So, being planful and cautious. Continuing policy discussions. A sustainable approach to water-energy-access.
- Five million acres certified by Ag Water Quality Certification program with MDA. We have one million, so that needs to continue.
- Greater adoption of drainage water management practices. There has been great research and evaluation through the CWFs for this practice. Address the adoption, to scale it up.
- Engagement and opportunities for crop retailers, to partner with all of us on our clean water efforts on agricultural lands.
- Interagency partnerships are still in place, and they are still collaborating. Working together to make a difference.
- Well documented water quality info so we know what is going on and we can identify answers for why we are seeing trends.
- All eighty WRAPs are completed and updated.
- Every Minnesota resident knows what they are drinking in their water. All private wells tested, and we have a policy to handle the funds for local treatment. We are working on a policy for individual wells.
- \circ $\:$ In 2034 we have reauthorization of the CWFs.
- o Delisting of impaired waters, so the public can have pride in their investment.
- The groundwater quality issues are better.
- Looking at what we've already done. Looking at those projects and being able to tell folks in 2035 what was accomplished, the research, so we can share the findings.
- Emerging trends are being addressed as well.

- Every Minnesotan can point to a CWF effort that has improved in their life.
- o No more cyanobacteria blooms in recreational bodies of water.
- Iowa, Lake Superior, and the aquifers are receiving cleaner water. Iowa is a boarder water, but it can leave the state cleaner than we started.
- Programs that are valuable and effective are moved to other sources of funding as we move to the 2034 Legacy funding. We have stood up these programs, so we can move them to other areas of funding.
- \circ $\;$ We have more work to do with easements, to keep them in perpetuity.
- o The stakeholder buy-in is important. We want every Minnesotan to see their local value.
- The success created, enduring local structure through the 1W1P process. It can manage unforeseeable issues that may arise.
- Conservation is good for the environment and climate resiliency. Politically, culturally, we have proven as a society, we can make an impact on some complicated issues, that can be tackled through time and persistence.
- o Every private well offered testing.
- Non-CWFs source of mitigation for safe drinking water (perhaps an outcome of the recommendations).
- o Groundwater data has easy access.
- o Minnesotans value water, act on it, and measure the change over time,
- By 2034 I hope we are celebrating that we have reauthorized the Legacy amendment.
- I hope we have transformed our agricultural systems, so they are better for families, the environment, and the future.
- A follow up document will be produced including all of these responses, which will weave in the Council's Strategic Plan, weave in the Clean Water Fund Performance Report, and how the Council can know the indicators, strategies, to help build out the picture, build on the conversations for future meetings. Additionally, a survey will be coming out later, for any additional ideas Council members may have in the next few weeks.

No Public Comments (Webex 03:05:00)

Thank you, and Best Wishes on your Future Endeavors Paul Gardner! (Webex 03:05:30)

- Council members and staff would like to acknowledge all the hard work and expertise Paul Gardner has brought to the table these last few years as the Clean Water Council Administrator.
- John Barten: Paul has done a wonderful job with the Clean Water Council. In fact, this is the first time the Clean Water Fund recommendations have passed without any major funding changes. He is organized, has synthesized the meeting content, responds quickly, and helps the Council be as productive as possible. He consolidates the information gleaned from the meetings, and he has done an outstanding job. Also, the policies, he has worked hard to help those move along as well. It is a difficult task, as there are many water quality issues. He is an easy guy, and nice person to work with. I want to extend my appreciation.
- Dana Vanderbosch, Assistant Commissioner at MPCA (Paul's boss): It is a unique position because Paul is a • staff person at the MPCA, but he Administrator of an independent Council. He must report to a state agency. So, it can be difficult balance sometimes, because the Council may have different priorities than a state agency. Prior to Paul being in his administrator role, the relationships between the Council and state agencies were not always smooth. So, we want to recognize his work here, bringing everyone together. Paul has been outstanding at serving in his role and building a bridge between state agencies and the Council. He has helped with alignment in the budget, and alignment with the state priorities. It is a bit of a messy process, but reflects a budget that legislators can adopt without changes. We have someone who can work between the two parties. It has been wonderful. He has done a fantastic job developing stories and communicating the progress of the work. People become discouraged when progress is not being done, and the work often takes decades, so highlighting the good work being done and showing the results to people, can be impactful. Paul started the Council's newsletter and pulls from different areas to get that work out to help people learn about the work being done. We need that to continue so people see the progress being done. He has been coordinating closely with our communication staff as well, and the Clean Water Fund Performance Report, pointing out what is being provided to the public, so they can glean talking points to be communicated out.

On top of that, he is a consummate professional, a wonderful person to work with. The MPCA watershed staff will miss working with you. Thank you for all you have done for us.

- Dick Brainerd: It has been an honor to work with you, Paul. You have been a professional. You have assisted us, especially with the communication pieces, to do great work. It is unbelievable to see you in front of the legislature. Even if challenged, you were able to respond well and represent the Council. It is incredible work, Paul. Thank you for your work.
- Jason Moeckel, DNR: I will really miss your updates on the newsletter, because you helped me stay informed (often before others) on what is happening with water at the legislature! That was my crutch. So, Jen that will now be expected. I relied on Paul in this area. Paul was ahead of all of us. One of the things Paul brought to this Council was the insight to the legislative process, and how the Council and agencies could work together, to help get the recommendations passed to a hundred percent acceptance. It is a huge celebration! You get a lot of credit for it.
- Rich Biske: Before being on the Council, I was a special interest stakeholder, and had been a part of G16 2.0, and there was a need to have a Clean Water Council Administrator, who knew the legislative and policy side of it, and an understanding of politics. When the position was created, Paul met with special interests and stakeholders. The Nature Conservancy was one of those groups. We left that meeting feeling like we were heard, that there was a place for different perspectives, to enter the conversation. That was important, and we continue to work on that now. To be that voice at the legislature, to carry the Council's efforts. It takes two years to create those recommendations, and it could unravel in a month, if we don't have the right person advocating. To get this work to this point was a credit to Paul. Those newsletter updates are for many folks. It is a public service that goes beyond a Council business. It is a high expectation. Thank you again, Paul. You have brough us together in productive ways, not just collaboration.
- Margaret Wagner, MDA: Paul, there is a lot of acknowledgements in your skills, and what you have brought to the position. I also want to thank you for your hard work in understanding the programs. I think you have represented all of us well. It is simple, but you have been able to capture the complex to create it to be simpler. Thank you for your contributions.
- Steve Christenson: Paul helped recruit me to join the Clean Water Council. Thank you for being welcoming and sharing all the ins and outs of the Council. Thank you for your leadership of the Council.
- Joel Larson, UMN: I have sat in a few times to these meetings. When you sit in for someone else, people may be treated as a warm body. I have always felt welcomed here and appreciate being included in all of the conversations. This is a welcoming group.
- Jen Kader: I had the honor of being one of those special interest stakeholders as well. When Paul first started talking with us, he blew our expectations out of the water. He has a lot of structure built up here, and I can keep going with what has been set up. He offered to leave for the month, and I said no, because I wanted to glean as much as possible from him before he left. I will miss having Paul here as a part of it. He is not far away as a thought partner.
- Paul Gardner: Thank you all. Every job I have done has been a learning experience. I have learned so much here. When I started in 2019, we discovered a lot of the stakeholders felt like the Council wasn't hearing them. I connected with Jen at Freshwater, to help work on that. Jen used her skills, to help build those conversations. This led to the Council's first Strategic Plan. For the first time, some objectives about water in the state had never been put in one place before. This led to the newsletter, and I just took on that project, and it was not in my job description. It happened to fill a gap that people said was missing. The newsletter started at 300 subscribers to 7,500 now. For the legislative piece, it is about 1,700 folks. I am a starter and a fixer. I go into smaller organizations and help adjust things to be where folks want to be. There is a limit, and I pleased with Jen following me. Talking about outcomes will be critical over the next few years. I was hoping it would be Jen who was hired for the position. The MPCA staff has been wonderful, and I appreciate the board who hired me (Shannon Lotthammer, Susan Stokes, Pam Blixt, and Frank Jewel). I wasn't sure about working for state government, because I thought I would suffocate after working in the non-profit sector and private sector. The position was described as quasi-autonomous, and I did not always need to color within the lines of state hierarchy (except purchasing). I hope I have been able to provide value to all of you. Jen will do great work. I am glad to have this time to work with Jen. Thank you all very much.

PUBLIC PARTICIPATION PLAN

INTRODUCTION

The Clean Water Council is committed to seeking the input not just from interested parties but from the public at large. The ratification of the Clean Water, Land and Legacy Amendment in 2008 led to the creation of the Clean Water Fund. Because voters provided their direct financial support to clean water, the Council believes that the Clean Water Fund deserves special attention from the public.

This public participation plan is intended to guide the Clean Water Council in seeking input on its budget and policy recommendations and strategic plan. It is based on the International Association of Public Participation (IAP2) framework.

The purpose of this plan is to

- Apply a process to increase public participation, build trust and relationships, gather input and feedback, and promote transparency and accountability.
- Help the Council be intentional about why, how, when, and who it is engaging, including identifying the voices that may be missing.
- Be strategic in identifying the public participation efforts that are needed as well as capturing those already underway so that they can inform the Council's decisions. Public participation can be diffuse; and we know it's happening at multiple levels, to varying degrees, across many groups, in formal and informal ways. This plan can help to aggregate input and apply it at strategic points in time so that it can be used as a more formal element in the Council's decision-making process.
- Improve transparency and accessibility for the budget recommendation and policy
 recommendation process. Defining the Council's scope of work and role allows the Council to
 better sort and respond to the input received including informing people when their input is
 outside of the scope of the Clean Water Council.
- Continually review and adapt the approach to meet public participation goals and objectives. To that end, the Council intends to review the plan annually in January and adapt as needed.

DECISION TO BE MADE

- Clean Water Council budget and policy recommendation to the legislature.
- Clean Water Council will make a recommendation, Minnesota legislature will decide.



Budget Year

Even-numbered years

January: Prep for the budget discussions

February-May: Budget presentations from the agencies, February budget forecast

June-August/September: Draft budget recommendations to approve and submit to the Governor's office

October-December: Final budget and policy recommendations discussions, with adjustments as needed based on the budget forecast

Strategy Year

Odd-numbered years

January: Recommendations from previous cycle submitted to the legislature

February-May: Legislative session. Council explores topics of interest during regular meetings, reviews policy statements

June-August: Council explores topics of interest during regular meetings, reviews policy statements

September-December: Discuss priorities for the Council going into the next budget year

Figure 1. Clean Water Council workflow diagram.

DECISION CRITERIA

IN SCOPE

- Funding allocation for individual programs, projects, and initiatives
- Policy statements
- Clean Water Council Strategic Plan

OUT OF SCOPE

- Implementation of Clean Water Funded programs, projects, and initiatives
- Grant award processes and decisions

DECISIONS ALREADY MADE

- Budget deadlines
- Past budget recommendations
- Existing appropriations with and without tails
- Clean Water Council Bylaws and charter
- Clean Water Land and Legacy Amendment and statutory language, Statute 114D

OTHER CONSIDERATIONS

- Clean Water Council Strategic Plan
- Clean Water Fund Performance Report and Dashboard
- Clean Water Fund Communications Plan
- Clean Water Road Map

- Most recent Clean Water Fund budget and policy recommendations report
- Individual agency and Interagency Coordination Team (ICT) structure and budget process
- Research on values, attitudes, beliefs around water
- Outcomes of engagement initiatives such as the We Are Water program
- Budget and Outcomes Committee scoring rubric

INTERESTED PARTIES

- Tribal governments
- Minnesota Residents and Taxpayers
- Rights-holders
- Environmental organizations
- Nonprofit organizations
- Business organizations
- Statewide hunting organizations
- Statewide farm organizations
- Statewide fishing organizations
- County government (rural counties and seven-county metropolitan area)
- City governments
- Township officers
- Soil and Water Conservation Districts
- Watershed Districts

- Metropolitan Council
- University of Minnesota
- Board of Water and Soil Resources
- Minnesota Department of Agriculture
- Minnesota Pollution Control Agency
- Minnesota Department of Health
- Minnesota Public Facilities Authority
- Local public health officials
- Minnesota Department of Natural Resources
- Interagency Coordination Team
- Minnesota House of Representatives
- Minnesota Senate
- Governor's Office

ROLES

INTERESTED PARTIES, PRACTITIONERS, RIGHTS-HOLDERS, AND RESIDENTS

Expertise in sense of place, community interests and values, public attitudes, and desired amenities.

- Provides their expertise on values
- Communicates questions, concerns, and ideas
- Reviews and provides input on Council budget recommendations and policy statements

Individuals and groups may provide input directly to the Council or their representative on the Council. Insights may also come indirectly from local engagement initiatives (for example, the We Are Water program) or from research on local perspectives on water.

CLEAN WATER COUNCIL

The state varies widely in terms of demography, geography, industry, land use, and local capacity. Members of the Council represent the interests of various groups in strategic planning, setting priorities, providing feedback to agencies on programs, making funding recommendations, and forming policy statements.

- Provides information to and acts as the aggregator of public sentiment
- Coordinates budget and policy recommendations with the Interagency Coordination Team

INTERAGENCY COORDINATION TEAM (ICT)

The Clean Water Fund Interagency Coordination Team (ICT) was formed to coordinate the use of Clean Water Fund dollars for achieving the aims of Clean Water Land and Legacy Act. The ICT includes the seven state agencies involved in protecting water quality: Metropolitan Council, Minnesota Board of Water and Soil Resources, Minnesota Department of Agriculture, Minnesota Department of Health, Minnesota Department of Natural Resources, Minnesota Pollution Control Agency, Minnesota Public Facilities Authority.

- Represents the agencies that implement various programs funded by the Clean Water Fund
- Informs the Council of agency programs and their associated budgets, needs, and outcomes
- Considers feedback from the Council in their budget proposal to the Governor's office

CLEAN WATER COUNCIL ADMINISTRATOR

This position exists to perform high-level strategic planning, outreach, and coordination for the Clean Water Council. They guide the process for developing policy recommendations and biennial budget recommendations, provide communication and engagement support, coordinate with the legislature and state agencies, and ensure that all Members are equipped with what they need to participate fully and effectively.

GOVERNOR'S OFFICE

- Receives Clean Water Fund budget recommendation from the Clean Water Council
- Receives Clean Water Fund budget recommendation from the ICT (with input from the Clean Water Council)
- Submits its budget proposal to the Legislature

LEGISLATURE

- Receives Clean Water Fund budget recommendation from the Clean Water Council
- Receives Clean Water Fund budget recommendation from the Governor's Office (which is informed by the ICT and Clean Water Council)
- Finalizes and approves the Clean Water Fund budget and makes appropriations to agencies

The Clean Water Council makes Clean Water Fund spending recommendations to the Governor and Legislature



*Note, orange dashed lines and text box added.

PUBLIC PARTICIPATON LEVEL

IAP2 Spectrum of Public Participation



IAP2's Spectrum of Public Participation was designed to assist with the selection of the level of participation that defines the public's role in any public participation process. The Spectrum is used internationally, and it is found in public participation plans around the world.

	INCREASING IMPACT ON THE DECISION				
	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GUAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.
				© IAP2 International Feder	ration 2018. All rights reserved. 20181112_v1

Figure 3. IAP2 spectrum of public participation. *Orange box outline emphasis added.

- During the strategy year, the Council operates predominantly at the <u>Involve</u> level as members meet with interested parties they represent and seek broad input. Techniques could include: Members meeting with individuals and groups they represent, with information and ideas flowing in both directions; attending industry and interested party conferences, meetings, field days, and other opportunities seeking to understand concerns and aspirations.
- As budget recommendations and policy statements form up or are open for discussion, the Council may Consult people on the Council's priorities or drafts. Techniques could include: Community comment at Council meetings, written comments, We Are Water program summaries, research that captures local perspectives on water, agency presentations, workshops/presentations from the Council at industry and interested party conferences and meetings.
- As decisions are made, the Council communicates with interested parties at the <u>Inform</u> level.
 Techniques could include: Website, social media, newsletters, interactive storymap, performance reports.

DECISION PROCESS

In designing the process for soliciting input, members of the Council should consider what they want to know, when, and how they will get that information. The Council ought to consider all input equally at all phases of engagement and in whatever form individuals and groups choose to provide it.

The Council ought to program its engagement actions to sync with when the information would be most impactful to the process. Figure 4 shows the budget year coordination with ICT flowchart including outcomes and key dates.



Figure 4. Budget year (even-year) coordination flowchart with ICT.

Table 1. Process outline.

Strategy Year (odd-numbered years)			
Description	Engagement level (primary)		
 Quarter 1 The Administrator submits the policy and budget recommendations to the Governor and Legislature in January. Clean Water Council reviews the Public Participation Plan. Clean Water Council closes the loop with interested parties that provided input in the budget recommendation process, shares the report with interested parties, and notifies them of next opportunities for input. The Administrator prepares communication for distribution. Members forward the content to their constituencies. Clean Water Council testifies at committee meetings. Clean Water Council adjusts recommendations as needed based on final budget forecast. 	Inform		
 Quarter 2 Clean Water Council members kick-off engagement with the interested parties they represent broadly, informing them of process, how to participate, and asking for input. All Minnesotans are invited to provide input at this early stage and respond to questions such as: What is your vision for 10 years from now? What is your hope for water resources in Minnesota? What do we need more of? What do we need less of? What do you want the Clean Water Council to know? The Administrator develops tools to facilitate communication and engagement, including newsletters, press releases, social media, surveys, etc. The Clean Water Council identifies conferences and meetings where it can provide updates, solicit input, share the public participation plan and (later in the year) preview its priorities going into the next budget year. As is needed, the Administrator works with interested Members to submit conference abstracts. 	Involve		
 Quarters 3 and 4 Members bring input from individuals and groups they represent to the regular Council meetings. The Administrator facilitates discussion helps to outline Council priorities based on what each member brings as well as what is heard from interested parties. Themes from this exercise are referenced in subsequent meetings as the next budget and policy recommendations are developed. The Clean Water Council also seeks input from We Are Water program coordinators and researchers and other indirect sources to seek to better understand local perspectives. The Council continues to invite people to react to prompts and encourage people to provide verbal or written testimony. 			

•	The Council presents its public participation plan and a preview of its priorities at industry and interested party conferences and meetings where it seems input. Presenters share an after-action review with the Council.	
Late Q	uarter 4	Consult
•	The Council crystallizes themes and priorities in preparation for the budget year. These themes are shared with interested parties for them to react.	
	Budget Year (even-numbered years)	
Descri	ption	Engagement level
Quarte	er 1	Inform
•	Clean Water Council shares priorities with the ICT, kickstarting the proposal process. The Administrator develops communication materials to close the loop with interested parties, sharing the priorities, an overview of the budget- setting process, and opportunities to engage next. Clean Water Council annually reviews the Public Participation Plan.	•**•
Quarte	er 2	
•	Clean Water Council receives proposal presentations from agencies. The Council and ICT consider input as they form up their proposals. Clean Water Council members consult with individuals and groups they represent. The Council considers all feedback and synthesizing work from the past year, taking care to weigh all input equally regardless of when or how it was received.	Consult
Quarte	er 3	
•	The BOC and ICT exchange budget proposals. The committee and Council describe how input received to-date was used or not used. The Council consults interested parties on the budget and policy recommendations, then makes a decision. The Administrator prepares communications to share with interested parties after the initial draft recommendations are developed, detailing outcomes, how it may adjust based on budget forecasts, and opportunities to be engaged in the coming months.	Consult
Quarte	er 4	
•	Clean Water Council makes adjustments to its recommendations based on updated budget forecast information, makes a decision, and shares the final version with interested parties. When the final budget decision is made, it's accompanied by a report that evaluates the engagement process and closes the loop with interested parties. The report describes the fate of input received and how it influenced the decision as well as where input landed – it could be acknowledged, answered, or referred to agencies/policy committee/BOC, as appropriate. The report describes how input was used or not used.	Inform

*Cycle repeats with strategy year. All input and wisdom are carried forward into subsequent cycles.

Draft summary from 5/19 Clean Water Fund outcomes discussion

At the May 19, 2025 Clean Water Council meeting, attendees participated in a facilitated exercise where they were asked two sets of questions aimed at clarifying the value of CWF investments to date as well as more specific outcomes desired in the future. This summary reflects the primary themes and a description of those themes, frequently using participants' own words where possible. Additional input will be sought from other interested parties, with their input refining and adding to this content in the future. Some specific details, such as numeric measures or individual programs, have not been included here for summary validation, but have been preserved for incorporation as the conversation progresses to include those details.

Question set 1: If someone were to ask you why the Clean Water Fund was valuable, what would you say? What would you point to or describe?

We have science-based and data-informed strategies and programs because of our monitoring and assessment work

We've systematically identified strategies to restore and protect surface waters across the state in every major watershed, and are on our way with doing the same for groundwater. We better understand current conditions as well as what is getting better or worse. We are using data to target actions and monitor progress. We're able to look for things other states either cannot or will not, and that's let us detect and develop plans for issues we otherwise would not know about.

We've done comprehensive planning on the watershed scale

In every watershed in our state we have (or soon will) a comprehensive plan developed on a watershed scale with local buy-in, identifying priorities for how to protect and restore water. These plans are coupled with dedicated funding for implementation. This approach has brought partners together across jurisdictional boundaries, allowed us to be more proactive, and address challenges in a targeted fashion.

We are seeing improved outcomes from lakes, streams, and groundwater

We are removing waters from the impaired waters list. We have safer drinking water and better understand the challenges across the state. We are able to move faster in responding to emerging issues.

We've invested in agricultural systems change

We've helped thousands of Minnesota farmers improve soil health, water quality, and their bottom line, and continue to invest in everything from research to equipment to outreach in an effort to support an accelerated change of cropping systems at scale.

We're increasing awareness

There is increased public awareness and understanding of water challenges and opportunities across the state, and increased local capacity to take action. People are more aware of their own personal relationship to water, the role they can play to steward it, and the programs or projects that can serve as resources and inspiration. They're also more aware of the need to continue to invest in actions for clean water, including drinking water.

We've built a solid foundation for current and future work

We've set the stage for strategically improving our water quality in a collaborative fashion, establishing relationships and an enduring structure that will provide continued benefits for years to come. We're also supporting sound policy with the public and state leaders alike engaged, with the resources they need to make science-based decisions.

We've been reliably there

The CWF has provided a steady, predictable, reliable source of funding for clean water programs and locally-identified projects.

We can be nimble and responsive, while supporting accelerated implementation.

The CWF is able to respond to unmet needs identified as priorities to address, providing the ability to accelerate implementation of good projects as well as a degree of flexibility

and nimbleness in the face of emerging challenges. At times, we've been able to move faster than—and set examples for—broader state or federal action.

We're creating ripple effects.

We are investing in research that is clarifying water challenges and opportunities, which pay dividends as they enhance implementation efforts. We are leveraging state and federal funding across the state. Collaborations locally and among state agencies are leading to coordinated action beyond efforts funded by the CWF.

We've enhanced coordination and collaboration among state agencies and other interested parties.

The CWC and CWF-supported activities have fostered open dialogue for challenges and opportunities facing Minnesota waters. It has improved interagency coordination, established and enhanced partnerships on the watershed scale as well as between agencies and local implementers, and generated a shared focus with greater buy-in for decisions being made.

We're being more strategic.

Being able to shift from a reactive, lagging response on water challenges to a systematic approach has allowed the dialogue to shift and broaden to focus on more strategic goals for the state. Our improved data and understanding coupled with that strategic focus has led to more targeted programs and actions that can (and do) generate clean water outcomes.

Question set 2: What do you hope we are celebrating in 2034? What do you hope we will have gotten done?

Pride and willingness to continue

Minnesotans value water and act to protect it. They take pride in the investments made through the CWF because they see how they and their communities have benefited. Success stories abound, and we can point to the impact of CWF-supported activities in measurable ways. We've proven as a state that we can make a positive impact on big and complicated issues, and people understand both the need for continued funding past 2034 as well as what cannot be accomplished through funding alone. They champion the work for clean water and reestablish the will for and commitment to efforts to make Minnesota's waters swimmable, fishable, and drinkable.

Enduring impact

Critical land is locked into conservation easements, including in Drinking Water Supply Management Areas (DWSMAs), the Mississippi headwaters, and around iconic lakes and rivers. We've worked to ensure adequate and safe groundwater.

Agricultural systems change

We have seen a systemic change in tilling and cropping systems alongside a robust and thriving supply chain and markets for water-friendly crops. This is resulting in changes that are better for farmers, better for the environment, and better for human health. We can measure the tons of soil saved, the reduction in phosphorus and nitrogen, and the visual change on the landscape.

Drinking water is safe

100% of drinking water is safe in Minnesota.

OR

We have a statewide system supportive of private well users, and public health is included as part of CWF work. All highly vulnerable DWSMAs have protective practices in place, most wells are protected, and we are seeing an increase in drinking water-friendly practices. Together, these produce a decrease in risk to drinking water supply and a decrease in contaminants.

Foundation firmly in place for future action

As a state, we will have in place a strong foundation of science, policies, tools, programs, and relationships to support and guide future action. Watershed Restoration and Protection Strategies, Groundwater Restoration and Protection Strategies, and One Watershed One Plan will be in their second generation or more, with evidence of impact from implementation efforts. Momentum is there for continued work, as well as funding to support it—from a renewed CWF as well as non-CWF sources.

Improved quality of waters and aquatic habitats

No new impairments since 2025, all lakes and rivers are swimmable and fishable, all artificial barriers to fish passage have been removed, and there are no limits on fish consumption.

OR

The quality of our state's waters show measurable improvement, with trends moving in the right direction. Iowa, Canada, Lake Superior, and aquifers are all receiving cleaner water in the future than they are today, and Minnesota's contribution to the Dead Zone in the Gulf has been reduced. A substantial number of lakes and rivers are delisted, and the rate of newly impaired waters decrease.

Science-based practices and decision making

Agencies, policy makers, and communities have the information they need to make informed decisions that improve waters, enable sound economic development, and be responsive to local environmental and community needs. Groundwater is more readily integrated into watershed planning and implementation activities, and sufficient information is available to make sound decisions on its use.

MINNESOTA POLLUTION CONTROL AGENCY

Minnesota's PFAS Blueprint: Where are we now?

Fawkes Char | Agency PFAS Coordinator

Minnesota's PFAS journey



Health effects and exposure routes



Health effects:

Immune suppression, developmental effects, reproductive effects

Exposure routes:

Drinking water, fish consumption, other food consumption, breastmilk or formula, air, dermal?

Main exposure route varies depending on the PFAS compound

Statewide strategic response

February 2021

Minnesota's PFAS Blueprint

PFAS planning document

A plan to protect our communities and our environment from per- and polyfluorinated alkyl substances



MINNESOTA

Minnesota's PFAS Blueprint supports a holistic and systematic approach to address PFAS.

https://www.pca.state.mn.us/air-water-landclimate/minnesotas-pfas-blueprint

Minnesota's PFAS Blueprint: Ten topic areas



Preventing PFAS pollution



Measuring PFAS effectively and consistently



Limiting PFAS exposure from food



Understanding risks from PFAS air emissions



Quantifying PFAS risks to human health



Limiting PFAS exposure from drinking water



Ensuring safe consumption of fish and game



Protecting ecosystem health



Remediating PFAScontaminated sites



Managing PFAS in waste

PFAS response actions



Prevent PFAS pollution wherever possible





PFAS pollution when prevention is not feasible or pollution has already occurred





MPCA's PFAS Remediation Guidance

Business With Us / Business support / Remediation guidance

PFAS remediation guidance

https://www.pca.state.mn.us/business-with-us/pfas-remediation-guidance







Directions for investigation & remediation of PFAS Stakeholder engagement & incorporation of emerging data Alignment of state and federal designations

Health risk-based values for PFAS in drinking water*

Minnesota Department of Health: Health-Based Values (HBVs) for PFAS in drinking water (January 2024)

Year	PFOA	PFOS	PFHxS	PFHxA	PFBA	PFBS
2002	7	7			n/a	
2006	1	0.6	2/2	n/a	1	n/a
2007	0.5		n/a			
2009	0.2	0.3				7
2013	0.5		0.3			
2016	0.07	0.07	0.07		7	
2017	0.035	0.027	0.027			2
2019		0.015	0.047			2
2022				0.2		0.1
2024	0.0000079	0.0023				0.1
Table adapted from the Minnesota Department of Health website, "PFAS and Health", All values shown in parts per billion (ppb).						

EPA Maximum Contaminant Levels (MCLs) for PFAS in drinking water (as of June 2024)

	Final MCLG (health-based, not enforceable)	Final MCL (enforceable)
PFOA	0	0.004
PFOS	0	0.004
PFNA	0.01	0.01
PFHxS	0.01	0.01
PFBS	n/a	n/a
HFPO-DA (GenX)	0.01	0.01
Mixtures containing two or more of PFNA, PFHxS, PFBS, and/or HFPO-DA	1.0 (unitless) Hazard Index	1.0 (unitless) Hazard Index

Table adapted from the EPA website, "Per- and Polyfluoroalkyl Substances (PFAS): Final PFAS National Primary Drinking Water Regulation". All values shown are in parts per billion (ppb) for comparison; EPA's final values are published in parts per trillion (ppt).



PFAS in public water systems

To date, 99% of community water systems have been tested for PFAS

• Exceedance at 18 (EPA MCLs)

Who pays?

- 3M Settlement (2018)
- Drinking Water (State) Revolving Fund
- Bonding
- Drinking water planning and design grant
- User fees

Esri, USGS | Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NPS, USFWS

MPCA PFAS Monitoring Plan



MINNESOTA POLLUTION CONTROL AGENCY





Solid waste facilities

Industrial facilities

Municipal wastewater treatment plants

Regional airports in Greater Minnesota

Permitting actions (NPDES/SDS)



Monitoring outcomes

Key results

- Certain industry sectors in MN are of particular concern for PFAS release
- PFAS were found at all airports, WWTPs, and currently or historically unlined landfills
- Quality PFAS data collection is challenging in some media, like industrial wastewater

Next steps

- Source reduction and management plans
- Targeted investigations at sites with drinking water risks
- Evaluation of remaining data
- Development of permitting strategies across media

Stormwater

- 2025 Multi-Sector General Permit for Industrial Stormwater issued on June 1
 - Permit requires PFAS monitoring for permitted facilities in certain industries
 - Affected facilities must complete and implement a PFAS monitoring plan
 - Facilities with PFAS results greater than permit thresholds will do source and exposure reduction plans
 - Facilities will also need to know their proximity to drinking water supply management areas (DWSMAs) and Class 1 waters
- MS4 (Municipal Stormwater): work in progress

Wastewater

- Municipal and Industrial
 - Emphasis on source identification and reduction
 - Class 1 PFAS water quality standards
 - Broader implementation strategy
- Municipal only: biosolids strategy
 - Facilities that land apply biosolids must collect and analyze at least one biosolids sample prior to land application
 - Four response tiers based on results of sample analysis



Solid waste

- Include PFAS as part of routine groundwater monitoring at unlined landfills
 - Add permit requirement at time of reissuance or modification of a permit
 - Modify non-expired permits based on risk to human health and the environment
- Leachate management:
 - Reduce leachate volume
 - Pretreat prior to land application
 - Coordinate disposal options with wastewater facilities



Air

Air emissions inventory

Of 158 facilities that reported in 2023, 11 reported having PFAS

Rulemaking is underway; currently includes nearly 400 PFAS compounds

Air emissions testing...



The economic case for prevention



Evaluation of Current Alternatives and Estimated Cost Curves for PFAS Removal and Destruction from Municipal Wastewater, Biosolids, Landfill Leachate, and Compost Contact Water

Prepared for Minnesota Pollution Control Agency

MINNESOTA POLLUTION CONTROL AGENCY

May 2023



Prepared by: Barr Engineering Co., Hazen and Sawyer

4300 MarketPointe Drive, Suite 200 Minneapolis, MN 55435 952.832.2600 www.barr.com **Cost to buy PFAS** to make consumer products

\$50 - \$1000 per pound

Cost to remove and destroy PFAS from municipal wastewater

\$2.7 million -\$18 million per pound

Prohibitions on PFAS in products

Amara's Law

July 1, 2020	January 1, 2024	January 1, 2025	January 1, 2026	January 1, 2032
Firefighting foam for testing or training	Food packaging and other uses of firefighting foam (with exceptions)	11 consumer product categories	PFAS reporting requirements begin	PFAS in nearly all other consumer product categories*
		*unless use of	PFAS is determin unavoidable"	ed "currently

Minnesota Department of Agriculture is working on implementing a prohibition on PFAS intentionally added to pesticides and some other agricultural products on the same timeline as Amara's Law.

¢

Amara's Law: Rulemaking updates

• Reporting and fees

- Manufacturers must submit certain required information to the MPCA if they sell, offer for sale, or distribute products with intentionally-added PFAS in Minnesota
- Fees may be established to cover the costs of implementing the reporting program
- Current comment period closes June 23
- Currently unavoidable use
 - After 2032, no products may be sold or offered for sale unless determined by rule that the use of PFAS in the product(s) is unavoidable

2025 Special Session: Environment and Natural Resources appropriations

- ~\$4.2M for emerging issues, including PFAS Blueprint
- ~\$2.2M to implement Amara's Law (includes money for transfer to MDH)
- LCCMR projects
 - Predicting Contaminant Movement in Minnesota's Fractured Aquifers
 - Terminating PFAS-Type Pesticides via Enzyme Cocktails
 - Biofilm mediated destruction of PFAS in groundwater
 - Pine needles reveal past and present airborne PFAS
 - Phytoremediation of PFAS from soil

2025 Special Session: Environment and Natural Resources policy

• Amara's Law

- Added definition of "internal components" [116.943, Subd. 1(m)]
- Specified that "juvenile product" does not include certain motor vehicles, e-bikes, or replacement parts [116.943, Subd. 1(n)(3)]
- Prohibitions beginning Jan. 1, 2025 do (did) not apply to the sale, offer for sale, or distribution for sale of a product that contains intentionally added PFAS only in electronic components or internal components [116.943 Subd. 5(b)]
- Firefighting foam: airport hangar extension for use of Class B foams, allows MPCA to issue extensions as needed beyond statutory date

Questions?

Fawkes Char | Fawkes.Char@state.mn.us | 651-757-2327



Minnesota's PFAS Blueprint

Protecting families and communities from PFAS pollution

MINNESOTA

Pollution Control Agency Department of Agriculture Department of Health Department of Natural Resources



Managing Minnesota's PFAS problem

Per- and polyfluoroalkyl substances, commonly known as PFAS, are an enormous family of chemicals and now pervasive in the environment. Called "forever chemicals", they do not breakdown and can bioaccumulate in both humans and other living organisms, with some known to be toxic. Minnesota requires a strategic, coordinated approach to protecting families and communities.

PFAS are everywhere ...

With more than 5,000 structures and over 9,000 identified chemistries, PFAS are present in the environment and will remain so for generations. In Minnesota, the first 'discovery' of PFAS contamination occurred in the early 2000s, when drinking water contamination was found in the East Metropolitan area of the Twin Cities. Since then, PFAS have been detected in water, sediment, soil, and fish all across Minnesota—from Duluth and Brainerd to Bde Maka Ska and Pine Island and places in between.

PFAS are used in a wide variety of industrial processes and commercial products. Two of the most studied are perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA). PFOS was a key ingredient in the stain repellant Scotchgard and was used in surface coatings for common household items such as carpets, furniture, and waterproof clothing. PFOS was also included in fire-fighting foams used at airports, fuel refineries, and other facilities. PFOA was used in the production of many products, including (but not limited to) nonstick coatings for cookware, coating for carpets, coatings for upholstery, coatings for clothing, floor wax, sealants, and even some dental flosses. While PFOS and PFOA are no longer produced in the US, products containing them are still in circulation in homes and businesses around Minnesota.

PFAS have been detected in air emissions from industrial facilities, wastewater from industrial and municipal sources, soil and water surrounding firefighting training sites, groundwater surrounding landfills, and are sometimes found with no obvious source at all.



... yet we know so little

For nearly two decades, Minnesota state agencies have been working to respond to PFAS and incorporate managing this pollution into their regular research, guidance, and regulatory work. The Minnesota Department of Health (MDH) has developed health-based values for five PFAS (PFOA, PFOS, PFHxS, PFBA and PFBS) and is currently reviewing a sixth (PFHxA). The Minnesota Pollution Control Agency (MPCA) continues working with permit holders and other states to understand the opportunities to reduce the presence of PFAS in both landfill leachate and wastewater, and addressing PFAS at contaminated sites across the state. The MPCA announced in October 2020 new protective water and fish consumption values for PFOS in several Twin Cities metro water bodies, including Bde Maka Ska and Pool 2 of the Mississippi River.

Yet, new PFAS are being invented, used in industry and incorporated into commercial products, and released into the environment every day. A key challenge in understanding and regulating PFAS is identifying their uses, presence in the environment, and impacts on health and ecosystems. Available sampling techniques and established analytical methods characterize less than one percent of all PFAS in the environment.

There are gaps in our understanding of the effects of PFAS on human and environmental health including a lack of toxicity studies available. Without toxicity studies, it is not possible to complete health risk assessments used to determine safe levels of human exposure.

The breadth and diversity of PFAS pollution, coupled with a lack of research on health impacts, complicates the development of regulatory and non-regulatory approaches to managing PFAS.



Currently available sampling and analysis methods can identify less than 1% of all PFAS in the environment.



A coordinated, strategic approach to PFAS

Across the United States, federal and state health and environmental regulators are taking steps to incorporate PFAS into their programs to protect human health and the environment. Scientists and environmental regulators have reached an overwhelming consensus that significant actions are needed to prevent adverse impacts from PFAS. This may include regulatory actions such as pollution standards and limitations on PFAS discharges and emissions to the environment, and cleanups of existing areas of contamination. While management and mitigation actions have significant positive effects, ultimately Minnesota cannot clean our way out of the PFAS problem. Instead, the pollution must be prevented from the outset through restrictions or bans on PFAS uses and assistance and financial support for reformulation.

Minnesota's state agencies have been working to respond to PFAS and incorporate managing this pollution into regular research, guidance, and regulatory and program work. However, efforts have largely been focused on reacting to new PFAS discoveries in Minnesota and specific discrete concerns. While important work has been completed, ongoing resources are needed to allow the agencies to build comprehensive and holistic PFAS programs.



While management and mitigation actions have significant positive effects, ultimately Minnesota cannot clean our way out of the PFAS problem.

Minnesota's desired strategy for PFAS management



Prevent PFAS pollution wherever possible





Manage

PFAS pollution when prevention is not feasible or pollution has already occurred



Clean up PFAS contaminated sites

The costs and burdens of these activities increase from prevention to site clean-ups. Prevention may require large efforts to establish but is relatively easy to maintain. Site clean-ups can be quite costly and time-consuming. The state may play different roles depending on its authorities and the stage of management, including writing regulations to ban or restrict uses, providing technical or financial assistance for pollution prevention, regulating through permitting or other actions, helping educate the public, deriving risk-based values, and leading clean-up efforts.

Identifying 10 priorities to protect communities and families

Working together, Minnesota state agencies developed Minnesota's PFAS Blueprint to support a holistic and systematic approach to address PFAS. Minnesota's PFAS Blueprint provides an in-depth discussion of PFAS concerns in 10 key issue areas. For each issue area, the blueprint outlines many PFAS initiatives taken and underway in Minnesota, and identifies key areas of opportunity for moving forward on managing and addressing PFAS. It is important to highlight the significant interconnections and overlaps between different areas, illustrating the complexity and difficulty of managing PFAS.



Measuring PFAS effectively and consistently

State agencies have developed multiple efforts to ensure consistent and accurate PFAS analytical results. Despite this important work, it is currently impossible to quantitatively measure the vast majority of PFAS in the environment.



Quantifying PFAS risk to human health Risk assessments are needed to ensure that levels of contaminants in the environment are protective of the community's health.



Understanding risks from PFAS air emissions

Federal and state governments have not developed PFAS health screening value for air as there is limited research about the toxicity of PFAS from air exposure. Minnesota also has limited information on which facilities emit PFAS to the air.



Preventing PFAS pollution

Pollution prevention approaches are designed to reduce exposure to toxic chemicals and prevent the need for expensive treatment and remediation efforts. More work is required to prevent non-essential uses and releases of PFAS.



Limiting PFAS exposure from drinking water Minnesotans value safe and sufficient drinking

water. MDH has planned for, and has ongoing monitoring efforts in place that will cover at least 90 percent of people served by community water systems by 2025.



Reducing PFAS exposure from fish and game consumption

Hunting and fishing are a way of life in Minnesota. Continued research of PFAS in fish and wildlife has indicated that some compounds can accumulate in commonly-consumed fish and game tissue. More work is required to ensure safe consumption of fish and game is maintained for future generations.



Remediating PFAS contaminated sites

While state agencies have developed several health- based clean-up values, Minnesota does not have a comprehensive list of PFAS uses in manufacturing and industrial processes and a comprehensive understanding of risks to human health. More information is needed to determine the locations of and risks posed by possible releases of PFAS into the environment.



Limiting PFAS exposure from food

Minnesotans should have confidence that their food is safe from harmful toxins. Research has shown that PFAS can accumulate into produce and livestock from contaminated water, air, soil, and animal feed or migrate into food from PFAS-coated cookware and food packaging.



Protecting ecosystem health

New research models and tools for ecological risk assessments are being designed for the unique physical and chemical properties of PFAS. Using new data and research, Minnesota can ensure its ecosystems are healthy and diverse.



Managing PFAS in waste

Because of its widespread use in products, PFAS is entering Minnesota's waste streams and going to solid waste facilities and wastewater treatment plants where it is difficult and expensive to address. The most strategic approach to managing PFAS is preventing them from entering waste streams in the first place.

Developing short- and long-term opportunities to manage PFAS

The Minnesota PFAS Blueprint identifies short- and long-term opportunities to manage PFAS in our environment and protect families and communities. Over the coming months and years, state agencies will further develop these strategies and engage Minnesotans on how best to implement them. Some PFAS strategies can be developed by using existing authorities and resources. Many other strategies will require legislative action, including priorities for the 2021 legislative session.

The future needs and opportunities are complex and resource-intensive. State agencies and community partners will need to work together to undertake projects that most strategically advance the collective goal to protect human health and the environment from the impacts of PFAS.

Long-term opportunities identified represent a broad range of strategies, many of which are connected and dependent on each other. The world of understanding and managing PFAS is dynamic, with work being done by other state agencies, federal agencies, academics, and corporations. This work will fill some of the gaps in knowledge, impacting the work that needs to be done in Minnesota. The conversation about long- term opportunities will need to adapt to new information and results. State agencies expect to revisit this blueprint over time to adjust to the changing landscape of managing PFAS.





Legislative action needed in 2021

(immediate needs)

Designating PFAS as hazardous substances

Designating PFAS as hazardous substances will enable a faster, more efficient response to releases of PFAS that threaten drinking water, communities and families. Facilities that generate PFAS pollution will be held accountable for cleaning up contamination. The state and communities will have the tools they need to identify and reduce sources cost effectively.

□ Requiring companies to disclose information on contaminants

The MPCA would be able to require facilities to submit information on the use of PFAS and other contaminants in products and processes when monitoring shows unexplained presence of contaminants in the environment. With more information, MPCA will be better equipped to work with facilities and communities to reduce pollution at the source through the permitting process, incentives, or pollution prevention.

□ Identifying sources of PFAS in the environment

PFAS contamination is a complex problem. State agencies need additional and better information to identify potential PFAS sources and prioritize investigations when large amounts of PFAS may have been used, produced, or discarded. A \$700,000 funding request would support a pilot project that would fill a critical data gap in the state's current knowledge of PFAS sources.

Evaluating PFAS waste going to landfills, compost facilities, and wastewater treatment plants

Minnesota does not have adequate data to evaluate materials entering wastewater and solid waste facilities that result in high levels of PFAS. A two-year funding request of \$500,000 will expedite state agencies' understanding of how waste coming into these facilities is affecting PFAS levels in the water that leaves wastewater and solid waste facilities.

Responding when PFAS are found in closed Minnesota landfills

When unexpected PFAS contamination is found at a closed Minnesota landfill, the MPCA needs access and funding to protect communities and families.

□ Protecting Minnesotans from fish contaminated with PFAS

PFAS has been detected in remote Minnesota waterways and fish tissue. New and ongoing water monitoring is needed to identify the extent of PFAS contamination in Minnesota and to develop safe fish consumption advice. The Governor recommends \$400,000 over the next two years to sample fish and water for PFAS.

Protecting drinking water and agricultural lands by understanding PFAS in wastewater and landfill leachate The MPCA is seeking \$1.4 million to better understand impacts of elevated levels of PFAS in wastewater biosolids, compost contact water, and landfill leachate and to evaluate potential treatment options. More information will ensure Minnesota's drinking water is safe and farms are productive.



Short-term considerations for agencies and legislature (within the next two years)

- □ Making progress on statewide water quality standards for PFAS-Class 1 drinking water.
- □ Creating a plan for monitoring PFAS in groundwater at active landfills.
- □ Generating a plan for monitoring PFAS at NPDES permitted facilities.
- □ Compiling information on inhalation PFAS toxicity.
- Developing a plan for performance testing for PFAS at permitted air sources.
- □ Issuing guidance on the collection and disposal of PFAS-containing firefighting foam concentrate and wastewater.
- □ Researching cutting-edge risk assessment techniques for data-poor PFAS.
- Updating guidance for recommended compound testing at cleanup sites to include PFAS.



Longer-term considerations

(more than two years)

- □ Assessing the need for acute wildlife risk assessment from exposure to PFAS-containing foam.
- $\hfill\square$ Requiring mandatory air toxics, including PFAS, reporting from facilities.
- Providing financial and technical assistance to businesses for switching from PFAS-containing products.
- Developing soil to groundwater leaching values for PFAS to be used in cleanups and disposal guidance.
- □ Developing an epidemiological study of residents exposed to PFAS through drinking water.
- $\hfill\square$ Limiting or banning PFAS in known non-essential uses.
- Assessing the need for developing statewide water quality standards for PFAS-Class 2 aquatic consumption, aquatic life.

A larger and more detailed listing of considerations is available at www.pca.state.mn.us

Pollution Control Agency Department of Agriculture Department of Health Department of Natural Resources

Minnesota Agricultural Water Quality Certification Program

Topic Selection Background Information

Program Overview	Agricultural runoff can harm lakes, rivers, streams, and groundwater. The Minnesota Agricultural Water Quality Certification Program (WQCP) is a voluntary program that provides incentives to agricultural landowners to implement conservation practices that protect water quality. The Minnesota Department of Agriculture (MDA) partners with other agencies and local governments to certify program participants and support their implementation of techniques tailored to address their farms' unique water-quality risks.
Evaluation Questions	How well has MDA managed WQCP? How long does certification take? To what extent has MDA measured water quality improvements as a result of the program? To what extent has water quality improved? To what extent has MDA established and achieved sustainability and environmental outcomes for WQCP? How well has MDA complied with applicable requirements?
State Resources Low	Since its inception, WQCP's annual appropriation (from the state's Clean Water Fund) has increased from \$1.5 million for Fiscal Year 2014 to \$3.5 million for Fiscal Year 2025. MDA directs most of this funding to local government partners that provide technical support to agricultural landowners who are certified or seeking certification.
State Control <i>High</i>	WQCP is established in state law and MDA developed the process for assessing an agricultural producer's water-quality risks. MDA also approves the local government partners and other individuals who work directly with landowners seeking certification.
Impact Medium	Agricultural runoff can threaten water quality throughout the state. According to an MDA report, farms certified through WQCP have implemented new conservation practices that have prevented thousands of tons of runoff from entering Minnesota lakes, rivers, and streams every year. However, as of February 2025, fewer than 1,600 of Minnesota's more than 60,000 farms were certified through WQCP.
Timeliness <i>Medium</i>	While Minnesota's water quality is of perennial interest to legislators and the public, there is no urgent reason to evaluate WQCP this year.
Feasibility High	The questions posed are fairly broad; OLA may need to narrow their scope. Then, OLA could evaluate WQCP using standard evaluation techniques, including data analysis, document reviews, interviews, and surveys.
Balance <i>Medium</i>	OLA has never evaluated WQCP. OLA's most recent program evaluation related to MDA or water quality was <i>Pesticide Regulation</i> , released in 2020.
Discussion	Since MDA began administering WQCP in 2014, enrollment and interest has continued to expand. MDA reports that the program has been successful in terms of water-quality outcomes and the financial health of the participants. An OLA evaluation could help determine the value of the program and provide suggestions for the future.

OLA

OFFICE OF THE Room 140, 658 Cedar Street LEGISLATIVE AUDITOR St. Paul, MN 55155-1603

legislative.auditor@state.mn.us www.auditor.leg.state.mn.us

Phone: 651-296-4708 MN Relay: 1-800-627-3529 or 711