

**Clean Water Council
Budget and Outcomes Committee (BOC) Meeting Agenda
Friday, December 1, 2023 9:30 a.m. to 12:00 p.m.**

Webex Only

2023 BOC Members: Steve Besser (BOC Chair), Dick Brainerd (BOC Vice-Chair), Gary Burdorf, Steve Christensen, Warren Formo, Brad Gausman, Holly Hatlewick, Annie Knight

9:30 Regular Business

- Introductions
- Approve agenda & most recent minutes
- Chair and Staff update

9:45 (ACTION ITEM) Clean Water Fund Supplemental Budget Requests & Recommendations for Full Council

11:00 BREAK

11:15 [Restoration Evaluation Report](#)

- Wade Johnson, Restoration Evaluations Program Coordinator, Department of Natural Resources
- Minn. Stat. 114D.50 Subdivision 6 requires the state to issue a regular evaluation report on restoration activities supported by dedicated funds including the Clean Water Fund. The Clean Water Fund is contributing \$200,000 for FY24-25 for this required purpose.

11:45 Public Comment

12:00 Adjourn

January Meeting: Groundwater Protection Rule Update

Budget and Outcomes Committee Meeting Summary
Clean Water Council (Council)
November 3, 2023, 9:30 a.m. to 12:00 p.m.

Committee Members present: Steve Besser (Committee Chair), Dick Brainerd (Committee Vice-Chair), Gary Burdorf, Steve Christenson, Warren Formo, Holly Hatlewick, and Annie Knight.

Members absent: Brad Gausman.

Others present: Tom Gile (BWSR), Tannie Eshenaur (MDH), Jason Carlson (DNR), Glenn Skuta (MPCA), Justin Hanson (BWSR), Annie Felix-Gerth (BWSR), Jason Moeckel (DNR), Jen Kader (Metropolitan Council), Barbara Weisman (DNR), Jim Stark (Subcommittee on Minnesota Water Policy), Molly Jansen (Red River Watershed Management Board), Angelica Anderson (Nature Conservancy)

To watch the WebEx video recording of this meeting, please go to <https://www.pca.state.mn.us/clean-water-council/policy-ad-hoc-committee>, or contact [Brianna Frisch](#).

Regular Business

- Introductions
- Approval of the December 1 agenda and November 3 meeting summary, moved by Dick Brainerd, seconded by Steve Christenson with an amendment to add in the Clean Water Council's priorities for supplemental funds in 2024. Motion with amendment carries.
- Chair and Staff update:
 - Today, the Governor is celebrating the one millionth acre enrolled in the Minnesota Ag Water Quality Certification Program (MAWQCP) near Altura in Winona County.
 - The ICT communication sub-team tagline "Your Minnesota Clean Water Funds at work" has been voted the favorite. They are working through some formatting, but Paul will update soon.
 - Paul Gardner did an interview with Insight News, the largest African-American media outlet in the state that will be online in December. Key takeaways: 1) "Structure is a problem", meaning that affected communities don't always fit into the usual set of stakeholders who are paid to show up at meetings; 2) communities most affected by environmental pollution may not know how to plug into our programs; and 3) There is a long history of the Black community having things done to them in the name of science; so Paul's statement that funding priorities are based on science was viewed negatively.
 - The next strategic plan draft will be available at the November full Council meeting.
 - A budget forecast should be coming out before the next meeting. [Edit: It will be December 6th, after the next BOC meeting.] Sales tax revenue was up in the first quarter of the biennium, which could mean a few million extra CWFs. It would be good to discuss some ideas ahead of time.

Altered Hydrology, by Jason Carlson, Regional Clean Water Hydrologist, Minnesota DNR (*Webex 00:28:00*)

- The Evaluation of Hydrologic Change (EHC) approach is to prepare long-term hydrologic data sets. It is to assess timing of hydrologic change. It compares periods before and after change. It helps to characterize and quantify change.
- Long term data sets are used as much as possible. EHC is dependent on the length of record. Minnesota has some substantial hydrologic data collected over the years. This includes the Watershed Averaged Annual Precipitation (from the State Climatology Office), Annual Average Runoff (from USGS gage data), and the Annual Peak Discharge (also USGS gage data).
- How did they go about identifying hydrologic change? They used 17 change point tests, 4 data categories (precipitation, runoff, precipitation/runoff relationship, an annual peak discharge), a preponderance of evidence, as well as their best professional judgment. They leverage existing tests, and a few statistical tests they have developed on their own, to identify when two periods are statistically different.
- The next step is measuring change. This can be done in a lot of ways, but they worked to keep things simple. They used three categories. They looked at the magnitude, the percentage of change before and after a change point. They looked at the frequency, or how often something happens. They also looked at the variability, or how consistently something happens. They also looked at the range of variability (RVA), it is a score (which comes out as a percentage as well), the change in the rate of occurrence within the central core

range of the data. It is called the interquartile range; it is between the twenty-fifth and seventy-fifth percentile (red and blue line on the graphic). They are looking at how often a metric is occurring within the central range in the pre-period (before 1993 on the graphic) to the changepoint year. Looking at the post-change period, they are looking at the number of occurrences in the central period. There is a significant change, and you can see the data set shift. The rate of occurrence has decreased by eighty-four percent.

- The EHC summary table reveals the hydrologic groups impacts. It is a way to think about hydrology in groups.
- Statewide EHC results:
 - There are 65 that they have across the state, with the length of record required.
 - Hydrologic change has not happened the same way across the state (graphic). There are flood flow changes (graphic). There are channel forming flows changes (graphic), at a 1.5-year return interval percentage change. They have results for the biological impact flows (graphic), which is from the August median baseflow percentage change. Certain biological groups need to have a certain baseflow to survive. There are similar patterns across the state but diving deeper into it reveal the differences across the state. They have random forest data models (graphic), it looks at the impact of difference drivers on the impact record; There is a graphic on the relation of watershed row crop acreage to runoff. They have looked at the change in precipitation across the state (graphic). They have change in annual discharge in inches (graphic).
 - What the EHC Technical Summary Reports look like: annual precipitation, annual runoff, annual peak discharge, flow duration, runoff ratios, baseflows, water balance, and data learning model (variable impact analysis). It also includes some summary information and some change statements for what is happening in that part of the state (i.e., change point determination, precipitation and discharge changes, flood flow changes, channel forming flow changes, watershed storage capacity, and impacts from dam operations).
 - There are 18 EHC reports posted online. You can find some of them at the Minnesota Water Research Digital Library (MNWRL): www.wrl.mnpals.net. They will all eventually be included at this website.
- What we've learned so far:
 - There are strong regional similarities.
 - Aspects of hydrologic change differ across regions and across the state.
 - Context is key – hydrology is both a driver and is driven by watershed health.
- Moving forward:
 - This will help inform the Watershed Restoration and Protection Strategies (WRAPS) and One Watershed One Plan (1W1P) efforts.
 - This provides an assessment of statewide results.
 - Developing methods to characterize subwatersheds where recent hydrology data is available.
 - Extending analyses on existing EHC gages. They are now working on cooperative stream gaging records.
- EHC strengths include consistent and repeatable, wide array of metrics based on empirical data, comparable across regions, identified additional analysis needs, and identified time frames and supports goal setting.
- EHC challenges include they are limited by length of records available, may not represent sub-watershed conditions, not available everywhere (47 watersheds, making 47 reports total), and complex results require interpretation.

Discussion/Questions/Comments:

- Dick Brainerd: What is the game plan with all this research? *Answer:* Looking at this and passing along the data to others that may be impacted. That includes looking at the dynamics that have occurred, and how that could be changed. It is having the knowledge and quantifying actual numbers of change to look at if we want to manage a pre-change point period. That could be unrealistic, and we can decide based on the data. It gives us goal points, to help start managing hydrology. Where you store water in a watershed matters, if you place it in a wrong spot, you could make the problems worse, so it really matters. There are a lot of connections here with this information, that we can lean into more, to help address issues.
- Warren Formo: This was a lot of good information. I appreciate your info about drainage. If we talk about drainage, we talk about it in the whole system, tiling, or the ditch system. Hopefully moving forward, we can talk more about them. There is research to each of them. We need to better understand hydrology to have a deeper discussion on drainage.

- Annie Knight: I think about the watershed-based implementation funding coming through, if the data you have can show the hydrological results from the work that we have, and how we can take those results and show how the CWFs can show that? How many years down the road would it take? *Answer:* I wish there was an easy answer. It gets at the scale question. If we look for changes at the scale shown today, we will wait a long time. However, the smaller sub-watersheds would have earlier insights and trends, that could help. But that will take a while, and there is some natural variability. There is also climate variability having an impact. It is hard to tease out those improvements to the changes. It is hard. We are gathering a lot of data, and there is a lot of ways to look at things.

Requesting feedback from members on CWF funding recommendations proposal format (Webex 01:43:00)

- This is to gather information, make sure we have what the Council members are interested in as the state agencies submit proposals. An example of the forms is included in the meeting packet.
 - Paul Gardner: How much information would the Council like to have? Also, in programs that have more funding allocated, would you like more time spent, or more information on them? If so, Paul can pass that along to the state agencies.
 - Warren Formo: I think the bigger funded program are worthy of more time. I would like to hear success stories, especially for programs that have been ongoing. Examples of how the funding has been used in recent years. I also think it is important for new or emerging programs, that these are also given enough time. If we follow what has been done in the past, they each have some time to present the program in front of the BOC and full Council. If they focus on big first, then new things that may need to be explained more, it will work out.
 - Jen Kader, Metropolitan Council: There are different criteria that keep coming up in the Council's discussions, like equity, performance measures, climate change, impact for private wells, etc. The Council has said they are important as the next round of budget recommendations are looked at. Anything around those lines that you know you are going to be asking about, go ahead and put it in the application/form. There is a space for it to show up, and for members to look at before discussions.
- Regarding the possible supplemental budget, it helps Paul to answer where the additional funds should go, to be approved by the full Council. It will likely be more than a million, but less than ten million. Two areas that have been mentioned are PFAS monitoring (MPCA) and PFAS in fish (DNR). This totals about half a million. The Legislature will choose to allocate the additional funds if the Council does not have any requests.

Discussion:

- Steve Christenson: There may be some millions available, so I think the BOC should provide thoughts on the top five priorities to the full Council, so they can approve something (modestly up to ten million). Some items were requested in the last budget cycle, so we should review that to see what didn't make the cut. Additionally, we should ask the state agencies what would be the area that they would like to see additional funds going towards, their priorities. Also, I would suggest a subset of the BOC to go over things a little more to get in front of the BOC and full Council, as there is not a lot of time. I would volunteer to be a part of that group. I think it would be helpful to the Legislature, in a format that is easy to digest.
- Warren Formo: I agree with Steve. We should put together a recommendation back to the Council, so we can make it back to the Legislature. In the past, we have started with a list of new things that have emerged. We also have included the items painfully cut from the last budget cycle. This is an opportunity to consider putting items back in. I think even the January meeting would be early enough. I would recommend leadership would meet to sort through and lay out the suggestions. *Response from Paul:* A quorum of the Council cannot meet (that would be 9 members). If funding is being deliberated, a public forum would be better.
- Steve Besser: The last cuts and the programs we want to fund more should be brought back to the Council. It could be just the BOC leadership and the full Council leadership.
- Paul Gardner: One item cut to fit things was the Agricultural Best Management Practices (BMPs) Loan Program. When there was extra money, it was back filled but not completely. There is also a Minnesota Department of Health (MDH) fish advisory part with PFAS to consider. There are numerous implementation programs, those programs could easily add more projects with the additional funds (i.e., the agricultural BMP loan program, low-income septic system program). It would be better to limit to a few programs.

- Steve Besser: How expensive is it for a water treatment system for private wells to deal with nitrate? *Answer from Tannie Eshenaur, MDH:* It depends if it is a point of use (treatment at the kitchen sink – faucets used for drinking water) which would be a reverse osmosis system, coming in at about \$2,000. There is maintenance for it as well. Some cases the pilot grants have done partial reconstruction of a well or paid for a new well, for the protection to be sustainable over the long run, it was the most cost-effective option. Well construction has a lot to do with it, not just the aquifer.
- Steve Christenson: Motion for the BOC to ask the Steering Committee to revisit the funding requests that were not approved in the last budget cycle, to come up with the top five priorities to present at the December full Council meeting for discussion.
 - Warren Formo: I would second it but would prefer not to. This is the approach we have done in other years as well; it is how we have operated in the past. It did not use a motion then, so we do not need a motion now.
 - Steve Besser: Paul, can you have an online meeting of the Steering Committee to meet up before the December full Council meeting.
 - Warren Formo: I would like to see the Steering Committee come back to the BOC first, before having it brought forward to the full Council.
 - Steve Besser: Good point.
 - Steve Christenson: I am new, so I did not know this was how we operated in the past. I think it should have been included on the meeting agenda.
 - Steve Besser: We have had this happen in the past.
 - Warren Formo: We have had supplemental budgets in the past, and at least one time it was such a small amount that the Council decided to leave it up to the Legislature. We learned our lesson then, that we should provide a recommendation no matter how small. I think whatever the number is, we should provide a recommendation for applying it.
 - Paul Gardner: Does DNR have a ballpark number on PFAS in fish? Answer: I would have to get you the ballpark number. We may not request this program if we can find the funding to cover it another way. Or this may be exactly the funding we are looking for.
- Paul Gardner: The Council has worked with the state agencies collaboratively. There is some power to have the executive branch to be all together. How would you like to proceed?
 - Steve Besser: If we are meeting with the Steering Committee, we will have the state agencies input. We can bring that back to the BOC.
 - Paul Gardner: The back of envelope math, on the likely requests include the DNR PFAS in fish at \$75,000, the MPCA PFAS monitoring \$326,000, the MDA Ag BMP Loan Program \$402,000, and the MDH PFAS guidance on fish consumption \$384,000, totaling \$1.187 million. The Council could propose more than ten million to cover all the bases. Does that sound reasonable?
 - Steve Besser: Yes, we can always go down.

Adjournment (Webex 02:20:05)

November 21, 2023

Brooke Cunningham, M.D., Commissioner
Minnesota Department of Health
brooke.cunningham@state.mn.us

Katrina Kessler, Commissioner
Minnesota Pollution Control Agency
katrina.kessler@state.mn.us

Thom Peterson, Commissioner
Minnesota Department of Agriculture
thom.peterson@state.mn.us

Dear Commissioners Cunningham, Kessler, and Peterson,

The undersigned organizations ask to be included in developing the State's response to the Environmental Protection Agency's (EPA) letter from November 3, 2023. As you know, the EPA sent the letter after investigating the information that our organizations supplied to the EPA in April 2023. EPA agreed with our assessment that the science is clear: there is an ongoing nitrate contamination problem in the karst region of Minnesota. And EPA agreed with our assessment that current state strategies to address the ongoing contamination are insufficient.

We applaud EPA's directives to ensure that people in this region are immediately protected from drinking potentially contaminated water. The Safe Drinking Water Act makes safe drinking water a public responsibility for community water systems and all wells using shared aquifers. We appreciate the recognition from the federal government that private well owners should not be responsible for paying for well testing and safe drinking water. We think that the discussion around solutions should not only address immediate public health relief but also longer-term measures like a permanent fund source for private well mitigation or the establishment of rural water systems in certain areas.

We were also pleased to see that EPA is expecting the State to conduct a risk analysis and use a scientific approach to develop and implement a long-term solution to reduce nitrate in drinking water. As we have communicated on several occasions, the undersigned organizations have many suggestions that would begin to minimize the over-application of nitrogen. In an email dated October 6, 2023, we offered over 20

possible actions the State could take that would reduce the amount of nitrate pollution entering our water.

The EPA also identified that Minnesota could develop and implement more protective feedlot permits to effect reductions in nitrate concentrations. The current permitting system is not addressing the cumulative impacts and existing efforts continue to fail to protect groundwater. Many of the specific actions suggested by our organizations could be accomplished by developing and implementing a more protective feedlot permit. The EPA also noted that the NPDES/SDS permits should include monitoring requirements, as mandated by the Ninth Circuit Court of Appeals for all Clean Water Act permits including CAFO general permits.

Lastly, EPA encouraged the state agencies to “consider modifications to the state’s Technical Standards for Nutrient Management with regard to land application of manure, litter or process wastewater, and any Minnesota guidelines for land application of commercial fertilizer, specific to Karst areas.” Again, many of the suggestions from our organizations could be implemented through modifications to these standards. In some cases, they could also be implemented through state and federal cost share programs to incentivize cover crop adoption, diverse crop rotations, alternative manure management practices, and grazing or pasture management.

As noted at the outset, the undersigned organizations request the opportunity to weigh in on the agencies’ response to EPA. The EPA has requested an anticipated timeframe for submission of a work plan by December 3, 2023. The undersigned organizations believe that the work plan must include a stakeholder process from the beginning. We welcome a productive collaboration with State agencies, our organizations, and a broader coalition of stakeholder groups, such as local government units, to find durable solutions to this problem. We would like to see the State agencies take the lead in convening that collaboration as part of its work plan.

We have a meeting with the EPA on November 28 to discuss this issue. We will be requesting to be included in the State’s quarterly updates so that we can provide our perspective to EPA in response.

Thank you for your immediate attention to the matter and for letting us know whether you are open to a collaborative process to identify solutions to this problem. To contact us, please write to lcurrie@mncenter.org and cgriffith@mncenter.org.

Minnesota Center for Environmental Advocacy
Environmental Working Group
Minnesota Well Owners Organization
Center for Food Safety
CURE
Food & Water Watch
Friends of the Mississippi River
Izaak Walton League Minnesota Division
Land Stewardship Project
Minnesota Trout Unlimited
Public Health Law Center

cc:

Debra Shore, Regional Administrator & Great Lakes National Program Manager

shore.debra@epa.gov;

Office of Governor Tim Walz & Lt. Governor Peggy Flanagan, attn: Joe Birkholz

joseph.birkholz@state.mn.us

Paul Gardner, Clean Water Council Administrator paul.gardner@state.mn.us

enc: Email dated Oct. 6, 2023 from lcurrie@mncenter.org



RE: Nitrate Contamination Meeting Request

Leigh Currie <lcurrie@mncenter.org>

Fri, Oct 6, 2023 at 10:41 AM

To: "Hogan, Tom (MDH)" <tom.hogan@state.mn.us>

Cc: Carly Griffith <cgriffith@mncenter.org>, "Eshenaur, Tannie (MDH)" <tannie.eshenaur@state.mn.us>, "Burman, Sandeep (MDH)" <Sandeep.Burman@state.mn.us>, "Wagner, Margaret (MDA)" <margaret.wagner@state.mn.us>, "Spanier, Doug (MDA)" <douglas.spanier@state.mn.us>, "Kuehner, Kevin (MDA)" <kevin.kuehner@state.mn.us>, "Stoddard, Dan (MDA)" <dan.stoddard@state.mn.us>, "Skuta, Glenn (MPCA)" <glenn.skuta@state.mn.us>, "Broton, Darin (MPCA)" <darin.broton@state.mn.us>, "Huff, Daniel (He/Him/His) (MDH)" <Daniel.Huff@state.mn.us>, "Vanderbosch, Dana (MPCA)" <dana.vanderbosch@state.mn.us>

Dear Dana, Tom, et al.

We agree that we all share the common goal of achieving safe drinking water for our citizens and we appreciate that you are all working toward that goal!

Dana, you mentioned some specific ongoing efforts and requested that we let you know when petitioners have "prepared recommendations." And Tom, you asked for specific "policy and resource language recommendations" that all three agencies can help to refine. To that end, we've summarized below the specific recommendations that our organizations have made with respect to how your three agencies can more effectively control nitrate pollution. We've indicated whether the recommendation was made in the petition to EPA, at one of our meetings with your agency, or in some other form. These recommendations fall into two buckets: public health measures to give immediate relief to people with contaminated water supplies, and prevention measures to modify the manure and fertilizer application practices that drive nitrate contamination in the karst region and other vulnerable groundwater areas.

We recognize that many of these recommendations fall outside of your ongoing efforts. That is because, respectfully, those current efforts are not working. Your agencies have relied almost exclusively on voluntary adoption of best management practices and the evidence is clear that those strategies have not worked. That is why we are advocating for the need for different approaches. We agree that all stakeholders should have the opportunity to weigh in on any of these strategies and we always advocate for robust public participation processes.

Thank you for considering our request for a multi-agency meeting to discuss these recommendations and any other new approaches to controlling nitrate pollution that your agencies wish to discuss.

Leigh & Carly

Recommendations for Minnesota Pollution Control Agency:

Petition ⇒

- Investigate CAFO permit requirements and best management practices for nutrient management to determine why they have been unsuccessful at protecting groundwater in the karst region.
- Prohibit CAFOs from opening, expanding, or modifying operations in the karst region unless and until nitrate concentrations in wells with historically high levels of nitrate consistently fall below the MCL of

10 mg/L.

- Require CAFOs and agricultural operators land-applying CAFO waste or other nitrogen fertilizers to modify their practices so that these operations will cease overburdening the area with nitrogen pollution via lagoon leakage, land application of manure, and/or spills and leaks.

In-person meeting ⇒

- Modify feedlot rules to create more protections for vulnerable groundwater areas (broaden pollution hazard designation criteria for interim permits, require water quality monitoring, frozen ground manure application ban coupled with grant program for manure storage capacity).

CAFO General Permit comments ⇒

- Base manure application recommendations on actual plant needs for nitrogen, not on maximizing the economic return for farmers.
- Pre-plant testing for nitrate (including enforcement).
- Clearer requirements for farmers about determining soil temperatures prior to manure application.
- Strengthen October restrictions on manure application.
- Prohibit application of solid manure in December and January.
- Require GIS identification of fields in manure management plans.

Recommendations for Minnesota Department of Agriculture:

Petition ⇒

- Investigate best management practices for nutrient management to determine why they have been unsuccessful at protecting groundwater in the karst region

In-person meeting ⇒

- Build on the two pilots with more township-scale best management practices under the Nitrogen Fertilizer Management Plan, expand regulatory aspects of the Groundwater Protection Rule to the township scale.
- Automatically subscribe permitted feedlot operators in vulnerable groundwater areas, as defined in the Groundwater Protection Rule, to runoff risk advisory program.
- Use tax on commercial fertilizer sales or corn seed sales to fund regenerative agriculture practices like cover crops, remediation for well owners with contaminated water, and/or targeted improvements for manure storage capacity tied to nutrient management requirements

Groundwater protection rule comments ⇒

- Mandate University of Minnesota “recommended” practices in vulnerable areas of the state including rate, timing, source, and placement.
- Allow Water Resource Protection Requirement Orders to be used to protect private wells (see chart pp. 4 – 5 for more specific recommendations).
- Reasonable requirements (such as recordkeeping or subsoil sampling) for responsible persons in areas of elevated nitrate levels before a site specific WRPR is issued (see chart pp. 6 – 7 for more specific recommendations).

Other ⇒

- Incentives for cover crops.

Recommendations for Minnesota Department of Health:

Petition ⇒

- Notify the public of the existing nitrate hazards and provide public updates throughout the process of returning drinking water to a safe condition.

In-person meeting ⇒

- Create a dedicated fund to assist private well owners with contaminated wells. This fund can be used to provide free access to laboratory analysis of water samples and to help cover the cost of water treatment or an alternative water supply if the contamination is above the federal health limit.
- Private wellhead protection area approach—tie financial incentives, regulatory measures, and conservation measures to townships where over 10% of private wells are above the health risk limit, like we have for drinking water safety management areas.
- Hazard assessment with a focus on pre-well-code wells.

[Quoted text hidden]

POSSIBLE supplemental requests for Clean Water Fund for 2024 legislative session (no formal endorsement by agencies implied)

MDH	5,000,000	testing, mitigation and response to elevated nitrate in private wells (EPA petition)
MDA	1,000,000	Accelerate/Implement Nitrogen Fertilizer Management Plan in southeast MN
MDA	402,000	AgBMP Loan Program--difference between \$10 million request and what was eventually appropriated
MDH	384,000	guidance on PFAS in fish
MPCA	326,000	PFAS monitoring to backfill cuts due to RiverWatch direct appropriation
DNR	90,000	PFAS in fish

\$ 7,202,000

\$ 10,000,000 Suggestion by BOC for maximum surplus to make sure we don't leave anything on the table

\$ 2,798,000

Other Council member ideas

Upper Mississippi River protection (Christensen)

In-lake treatment (Barten)

Stormwater research-backfill shortfall? (Barten)

Small grants program-Water Legacy Partners (Barten)

Carp removal (Barten)

review policy statements

Take advantage of matching RCPP federal money (same pot as soil health \$\$)

interest shown by the BOC in:

- * What is "shovel-ready" that could deploy extra funds?
- * What support could the CWF provide based on a response from the EPA on private well petition?
- * What was left on the chopping block from the last cycle?