

Clean Water Council Meeting Agenda

Monday, August 16th, 2021

9:00 a.m. to 12:30 p.m.

WebEx Only

9:00 Regular Clean Water Council Business

- **(ACTION ITEM)** Agenda - comments/additions and approve agenda
- **(ACTION ITEM)** Meeting Minutes - comments/additions and approve meeting minutes
- **(INFORMATION ITEM)** Chair and Council Staff update
 - **Committee Reports & Committee Openings:** Policy and Budget & Outcomes
 - **Field Tour Update:** September in SW Minnesota
 - **Schedule for Return to Meeting in Person**

9:15 Updates from Outdoor Heritage Fund, LCCMR, and Subcommittee on MN Water Policy

- **Mark Johnson**, Lessard-Sams Outdoor Heritage Council
- **Becca Nash**, Legislative-Citizen Commission on MN Resources (tentative)
- **Jim Stark**, Subcommittee on Minnesota Water Policy

9:45 Strategies to Reach Non-Operating Landowners to Improve Water Quality

- **Robin Moore**, Land Stewardship Project, Montevideo, MN
- **Brad Redlin**, Minnesota Agricultural Water Quality Certification Program (MAWQCP)

10:45 BREAK

11:00 Strategies to Reach Non-Operating Landowners to Improve Water Quality (continued)

- **Justin Hanson**, Mower SWCD District Manager

11:30 Results from Center for Survey Research on Minnesotans' Views on Water

- **Paul Gardner**

11:45 New Business?

Future Meetings:

- September 12-13th Field Tour in SW Minnesota
- October meeting at MPCA (tentative pending any new COVID guidance)
 - Update on Selected Watershed Restoration & Protection Strategies (WRAPS)
 - New Paper on Cost-Effectiveness of BMPs in the Le Sueur River

MEETING DATES FOR 2021: Calendar attached

Approved Meeting Dates for Clean Water Council for 2021

(It is unlikely that state agencies will allow an in-person meeting until after June 2021)

Full Council (3rd Monday with Exceptions for Holidays)	Budget & Outcomes Committee (1st Friday) with Exceptions for Holidays	Policy Committee (4th Fridays) with Exceptions for Holidays
9 am to 12:30 pm (if by WebEx) 9 am to 2 pm (if in person)	9:30 am to 12:30 pm (if WebEx) 9:30 am to 2 pm (if in person)	9:30 am to 12:30 pm (if WebEx) 9:30 am to 2 pm (if in person)
January 25 th (MLK Day Jan 18)	January 8 (New Year's is Jan 1)	January 22
February 22 nd (Prez Day Feb 15)	February 5	February 26
March 15	March 5	March 26
April 19	April 2	April 23
May 17	May 7	May 28 (this has been corrected)
June 21	June 4 (cancelled)	June 25
July 19	July 2 (cancelled)	July 23
August 16	August 6	August 27
September 12 th -13 th [field tour]	September 3 (change for Labor Day being the 6th?)	September 24
October 18	October 1	October 22
November 15	November 5	November 19 (Thxgvg is Nov 26)
December 20	December 3	December 17 (Xmas Eve Dec 24)

Clean Water Council June 21, 2021 Meeting Summary

Members present: Steven Besser, Kevin Bigalke, Richard Biske, Richard Brainerd, Gary Burdorf, Tannie Eshenaur, Kelly Gribauval-Hite, Josh Heintzeman, Frank Jewell, Holly Kovarik, Jason Moeckel, Jeff Peterson, Whitney Place, Victoria Reinhardt, Todd Renville, Sen. Carrie Ruud, Peter Schwagerl, Patrick Shea, Glenn Skuta, Phillip Sterner, and Marcie Weinandt.

Members absent: John Barten, Warren Formo, Jen Kader, Rep. Heather Keeler, Raj Rajan, and Jordan Vandal.

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

Regular Clean Water Council (Council) Business

- June 21 meeting agenda and May 17 meeting summary, motion for approval by Dick Brainerd, seconded by Steve Besser, motion approved unanimously.
- Chair and Council Staff update
 - Legislative Update
 - Sen. Carrie Ruud: Thank you for all your work. The Council is important for this work. If the Senate minority will suspend the rules, the Senate will be taking up the Legacy bill on the floor today. They tried to stick to the Council's recommendations. However, Chronic Wasting Disease (CWD) is a big issue, so it was added at the last minute. The Conservation Reserve Enhancement Program (CREP) was also funded at a higher amount as well, with hope for a bonding bill because it would meet all of the federal obligation. The \$24 million for Soil and Water Conservation Districts (SWCDs) was included, and it is controversial. It is the third biennium that this has happened, and no one has come forward with a stable source of funding, so it is included. If the Council does not want to fund it, then funding should be cut for programs and projects that use the SWCDs for their work. As the Council moves forward, looking at the diversity, equity, and inclusion portion, and I would caution you on that subject. The Legacy Bill should not be decided based on someone's skin color, it is for all Minnesotans.
 - Rep. Josh Heintzeman: There are disagreements, but we have agreements. The people of Minnesota love this funding, and the SWCDs do a fabulous job. This is appropriate, I commend the Senate on this work, and we got it done. I am pleased to be able to support the SWCDs in the bill. The issues of equity into the recommendations has proven to be controversial, and I would concur with Sen. Ruud. It is a difficult place to insert that agenda. The Governor would like to see that included in all areas, and in some bills it is very relevant. However, in the environment and natural resources subject area, it is difficult. Moving forward, I hope the Council recognizes the responsibility it has to make recommendations as opposed to leaving money available. The Legislature prefers to have recommendations, as opposed to leaving money available.
 - Paul Gardner: See spreadsheet in meeting packet. This is to show the differences in the Council recommendations and the final product.
 - *Comment from Glenn Skuta, Minnesota Pollution Control Agency (MPCA):* Regarding the insertion of the We Are Water program into the WRAPs line item, it was not the full amount given from what was recommended. I think it places the money there to be used for a generic public education. It does not fund it fully, but does not limit it for state agencies for putting funding towards it, compared to that limit in the past.
 - *Comment by Tannie Eshenaur, Minnesota Department of Health (MDH):* The MDH is perplexed and stunned by the total elimination of the private well protection initiative. We are not sure what the Legislature is saying regarding that action. About 1.1 million Minnesotans, about 20 percent, use private wells as their main source of drinking water. We will look for more direction on what they are supposed to be doing in that area.

- Committee Reports & Committee Openings: The Budget and Outcomes Committee (BOC) did not meet in June. They will not meet in July. Regarding the Policy Committee, they heard presentations on irrigation. It was a comprehensive overview, and the recording is available online if anyone is interested. Note, Frank Jewell has made appointments for these committees. There was a lot of interest. Two people were asked to give up their spot, as they were on both committees, in order to allow others interested a turn to be on the committee.
- Field Tour Update: September in Southwest Minnesota
 - The original date has been changed to September 12 and 13 instead due to a citywide event in Worthington, MN (King Turkey Days).
- Schedule for return to meeting in-person:
 - At the bottom of the agenda, there is a list of the upcoming meetings. On July 19, the Council has been invited to an event at the Forever Green Initiative (FGI) at the University's St. Paul campus.
 - In August, the room that usually holds the Council is in use at the MPCA. Therefore, it will be online.
 - In October, will be the first full Council meeting in person at the MPCA.

Emerging Farmers Program, by Patrice Bailey, Assistant Commissioner, Minnesota Department of Agriculture (WebEx 00:37:00).

- *Introduction from Paul Gardner:* In the Council's Strategic Plan outreach, several groups talked about the large transition in land ownership in the state. The Baby Boomers are transitioning out of farming or property, and land is being transferred to family, sold, or rented out. It is an opportunity to talk to new owners about best management practices (BMPs). Changing demographics in Minnesota may change who is farming.
- Patrice grew up in Harlem in New York City, New York. Unfortunately, there is not a lot of exposure to agriculture in the middle of a busy city. Many of his first exposures to agriculture started in his college years, but there were still many negative stereotypes of farming. After more experiences looking at the larger scale farming, was it more eye opening and exciting. He became one of the first African American Assistant Commissioners at the MDA since 1921 in state history!
- The MDA has served our state for more than 125 years. There are three general areas of responsibility: Licensing and inspection of grocery stores, convenience stores, dairy and meat processing plants; licensing of pesticides and fertilizers including identifying and eradicating invasive species; promoting and marketing Minnesota's agricultural products and supporting farms of all sizes.
- There are about 68,000 farms on 26 million acres of farmland. The average farm is 375 acres. The Ag sector supports more than 430,000 jobs. The Ag market is valued at \$16.7 billion with \$8.85 billion in the crop sector and \$7.85 billion in livestock sector. Minnesota is first nationally in turkey, sugar beets, and green peas. Minnesota is second in hogs, dry beans, and sweet corn. Minnesota is third in soybeans, spring wheat, sunflowers, and oats. In addition, Minnesota is fourth in total Ag exports (\$6.4 billion), including soybeans, pork, and corn as the top exports.
- For emerging farmers for minority ownership in Minnesota, the numbers are slowly building, but are still very small. The number of acres owned is lower, and there are more renters. There is a new census coming out next year, and we hope the numbers will be exponentially more diverse.
- Lieutenant Governor Peggy Flanagan was the instigator of Emerging Farmers. She was interested in identifying barriers for veterans, people of color, women, farmer's with disabilities, and LGBTQ+ people in agriculture. The purpose is to advise the commissioner and legislature to break down barriers to success. They held six listening sessions in September 2019 to December 2020. The barriers were similar across the state. Some of those barriers include: racism, pricing, healthcare, not being seen, finance, access to credit, and student loan debt. The American Rescue Act will address some of these barriers because of funding coming in to minority emerging farmers. Minnesota agriculture is made stronger by diversity. They created the Emerging Farmers Working Group, initiated by a legislative request (40.1, Sec 21). From the listening sessions, they collected a lot of anecdotal information and created a report.
- The Emerging Farmer Task Force made recommendations:
 - Establish an Emerging Farmers Task Force to guide development of programs. This is complete.
 - Increase the agricultural microloan program from \$10,000 to \$20,000. This is complete.
 - Implement advance payment for grant funding modeled after the USDA NRCS advance payment program.

- Provide funding for farm service providers, including state agencies, to translate materials and trainings.
- The Emerging Farmers' Working Group had more than 100 applicants. It was created by emerging farmers, to be led by emerging farmers. The first meeting (virtually) was held November 6, 2020.
- The MDA Emerging Farmer Office, which is translating services and increasing international trade options.

Questions:

- Dick Brainerd: Where does the Legislative session 2021 stand currently? *Answer:* The budget isn't complete yet but funds have been set aside in the Emerging Farmer Office at the MDA.
- Phil Sterner: There is an opportunity to grow crops in roof tops, community gardens, small garden plots, vacant parking lots, etc. City ordinances are also an area to work on as a barrier (i.e., chicken laws). Schools and technical colleges can lure folks who were not raised on a farm. *Response:* Yes, having these options is important, especially in urban settings. There is a two block city garden in Chicago. They have also been working with colleges (i.e., Central Lakes College Ag). Lastly, there will be funding for meat cutting programs, which have seen declines (i.e., Ridgewater Community College). Here is the Working Group website: <https://www.mda.state.mn.us/emerging-farmers-working-group>.
- Steve Besser: Greater Minnesota is predominantly corn, soybeans, and some small row crops. There are many fields that are black dirt and clear until the spring. It is an opportunity with new farmers to grow something else. Forever Green is having a tough time getting entrenched here. The farmers are very traditional, and they do it the same way because that is how their family has been doing it forever. *Response:* Land is expensive in the metro area, but it is more affordable in greater Minnesota. These emerging farmers would like to be a part of this shift. Yes, there is social pressure to stick to corn and soybeans.

Street Sweeping to Improve Water Quality, by Mike Trojan, Hydrologist, MPCA (*WebEx 01:20:00*)

- Street sweeping improves aesthetics, roadway safety, and environmental quality, among other benefits. It won't be as effective if there are vehicles present or if there is additional organic matter like leaves placed in the street.
- Early findings of street sweeping research for water quality were not encouraging. There was little to no effect of sweeping on sediment and phosphorous concentrations in stormwater runoff. The sediment and phosphorous concentrations did not differ by land use. The sweepers are less effective at removing fine grained particles that contain the greatest amounts of phosphorus. The aesthetics and public demand were the main drivers for local sweeping programs.
- Most of the phosphorus and nitrogen is in the coarse organic materials (leaves and organic debris). If the goal is to reduce phosphorus and nitrogen, the focus should be on the coarse organic materials. The greater the source of the organic materials, the more will be found in the streets; there is a linear relationship between the level of phosphorus and the street tree canopy fraction. In addition, research revealed that the leaf litter has the potential to lose a high fraction of its initial phosphorus. That loss increases with time and the degree of leaf fragmentation (with leaf species having differences).
- The sweeper type and method have a big impact on efficiency. Regenerative-air models are 76 percent efficient; vacuum-assist at 62 percent; high-frequency mechanical broom at 20 percent; and low frequency mechanical broom at 2 percent.
- For water quality benefits, the time, place, and method are important. The most organic debris is in the fall and a small increase in May, due to seeds and buds falling off the trees. Areas with extensive tree canopies need to be swept to clear the organic debris. We mentioned equipment. Training is beneficial.
- Incentives: They created a tree credit method based on actual measurements of materials collected (organic carbon, dry mass collected, wet mass collected, and street sweep truck model used). They can estimate the amount of phosphorus being removed.
- Outreach and communication: 307 people attended a street sweeping webinar. MPCA provides guidance in the [Minnesota Stormwater Manual](#) and a user guide. They have more items coming soon including case studies, sweeping guidance, and recorded videos.
- More research will help fine tune the numbers. They are looking for better information on sweeper types and collection methods. They are looking at the effects of different species impact for organic matter (i.e., the ash trees lost can be replaced with other helpful species). There are new models looking at downstream stormwater practices. They are also interested in seeing if sweeping is effective for other pollutants (e.g., bacteria, solids, metals). This is sophisticated and cost-effective work. It reveals that street sweeping, if done

properly, can cost-effectively remove large amounts of phosphorus in municipal stormwater systems. It could change the standard operating procedures in many cities for many years. It could result in a significant environmental improvement and protection at a very low cost.

Questions:

- Do you know how many communities are using the regenerative-air street sweeper trucks? *Answer:* I am not sure. They are on the increase but are expensive. Some communities sharing expenses. The water quality benefits are driving more availability.

“Is Agriculture Innovative? Creating a More Innovative Agriculture” by Kevin Kimle, Rastetter Chair of Agricultural Entrepreneurship and Teaching Professor, Iowa State University (*WebEx 02:00:00*)

- Innovation is most often about using old things in new ways, places, and combinations. Velcro came from someone who picked burrs from their dog that have small hooks under a microscope. Most innovation arises from individuals and small groups experimenting in some way, and they may not recognize their work as innovation until later. Innovations are not determinant from current knowledge, thus are not foreseeable; innovation is not predictable.
 - Does agriculture have an innovative culture? Is there an agricultural personality? The Big 5 Personality Trait tests are administered to Iowa State University students in the Econ 334/Entrepreneurship in Agricultural course. Students mostly major in agronomy, animal science, agricultural business, horticulture, and agricultural engineering. The majority were from Iowa, with many from other Midwestern states. The Big 5 Personality Traits (conscientiousness, neuroticism, agreeableness, extroversion, and openness to experience) looks at traits normally distributed across populations and across countries, with the average found in the fiftieth percentile.
 - Conscientiousness was found around the 64th percentile
 - Neuroticism at 46th percentile
 - Agreeableness at 46th percentile
 - Extroversion at 70th percentile
 - Openness to experience at 29th percentile
 - What do the low scores on openness to new experience (and ideas) mean? Is it connected to the Midwest culture, an agriculture issue, or perhaps a challenge to innovative and entrepreneurial approaches to problem solving? They are not sure yet. These are interesting results.
- In the agricultural entrepreneurship initiative (AgEI), it can be approached in a few ways. First, it is founder-centric, and it is hard to do new things, so providing support is helpful. Second, there is a need to have a multi-dimensional funnel for innovations to move from idea to reality. There may be good ideas, but getting it out successfully can be hard. Third, the right money at the right time. Fourth, the right mentoring at the right time. Fifth, creating interactions that create community.
- Some details from their Ag startup engine (started in 2016). They had an agtech idea-stage investment fund aiming to invest in \$25,000 to \$50,000 in 15 businesses. There would be ISU students developing agtech business in AgEI as well as ISU alumni working on agtech businesses. There also were entrepreneurs from outside the ecosystem that benefit from joining. This was because there are significant gaps in funding sources at all stages in Iowa and the Midwest. Sometimes, networking those connections is all it takes for some items to take off.
 - So far, they have done well (2016 to 2020). They funded \$750,000 for 10 investors, at about \$25,000 to \$50,000 per investments. There are 15 Agtech portfolio companies, with 2 successful exits to date. There is about \$30 million in additional capital raised by those companies, with over 140+ jobs created.
 - They have a second fund now (2020 to 2025). They are looking at 19 investors, for a \$2.5 million fund, with \$25,000 to \$50,000 per investment. They have a goal of 30 to 45 Agtech portfolio companies. They have the ability to make follow-on investments.

Questions:

- Frank Jewell: Can you give us some examples of what a few projects were funded? Practices on the ground are the items we are hoping to change, does this align? *Answer:* One was related to regenerative agriculture called [Continuum Ag](#). It was a consultancy helping farmers with regenerative agriculture practices, looking at

soil health and water quality elements. Beyond a consultation business, they have a tool called “TopSoil” that measures in a new way. Another investment is related to another kind of benefit to water quality, called [Gross-Wen Technologies](#). The founders created a high productivity systems for growing algae. They started looking for biofuels, but pivoted because algae is good a removing nitrogen and phosphorus from water. They install this system at wastewater treatment systems, to collect the algae, and turn it into a pellet as a fertilizer. It is an agricultural technology solving a non-agricultural problem.

- Tannie Eshenaur: Are there other areas where you are applying social science in problem solving or spurring innovation? *Answer:* That is a good question. Perhaps, we should be doing more.

Adjournment (*WebEx 02:55:03*)