

## **Policy Committee Meeting Agenda**

Clean Water Council

August 27, 2021

9:30 a.m. – 12:30 p.m.

WebEx Only

*2021 Policy Committee: John Barten (Chair), Rich Biske, Kelly Gribauval-Hite, Raj Rajan, Victoria Reinhardt (Vice Chair), Peter Schwagerl, Phil Sterner, Jordan Vandal, and Marcie Weinandt*

### **9:30 Regular Business**

- Introductions
- Approve today's agenda
- Approve minutes of previous meeting
- Chair and staff update

### **9:45 Policy Statement Discussion**

- Underground Utilities Wrap-Up

### **10:15 BREAK**

### **10:30 Scoping on Revised Pharmaceuticals Policy Statement**

### **11:15 Review of Policy Topics for Future Consideration in 2021-2022**

### **12:00 Adjourn**

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#### Possible Future Meeting Topics:

- LiDAR: Summary of its uses to date; future needs (from recently passed Legacy Finance bill)
- New Plan to Spend 3M Settlement for East Metro
- Neonicotinoids: clothianidin, and imidaclopid (idea from Minnesota House of Representatives)
- Tire chemical and salmon/smelt in Lake Superior (idea from Minnesota House of Representatives)
- Precision manure application/Manure storage grants for water quality

**Policy Committee Meeting Summary**  
**Clean Water Council (Council)**  
**July 23, 2020, 9:30 a.m. to 12:30 p.m.**

**Committee Members present:** John Barten (Chair), Rich Biske, Raj Rajan, Victoria Reinhardt (Vice Chair), Peter Schwagerl, and Jordan Vandal.

**Members absent:** Kelly Gribauval-Hite, Phil Sterner, and Marcie Weinandt.

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
- Motion to approve the July 23 meeting agenda and June 25 meeting summary, moved by Rich Biske, seconded by Raj Rajan. Motion approved by vote unanimously.
- Chair and staff update
  - The Council's July 19 meeting was replaced with an event at the University of Minnesota (UMN) Forever Green Initiative (FGI) and the Friends of the Mississippi River.
  - Update on Minnesota Legislation
    - The Governor signed the Legacy Finance Bill. Every program that the Council recommended was included, with a few merged, and a few programs had reductions. Overall, the final bill was very similar. The extra \$36 million helped. Frank Jewell and Paul Gardner will be meeting with Senator Ruud to debrief. In addition, Paul will be meeting with some of the legislators that attended the UMN/FGI.
    - *Question by John Barten:* In the previous meeting, there was a discussion on the legislation that restricted the Minnesota Pollution Control Agency (MPCA) manure application rule unless the Environmental Protection Agency (EPA) disapproves of the changes. When does the MPCA expect to hear a decision? *Answer from Glenn Skuta, MPCA:* The MPCA met with the EPA a few days ago to discuss the process of the request to review it. They sent a letter requesting them to review the statute and make their decision on it. This was sent yesterday. The understanding is that they will act on it as soon as they can. However, they need time to thoroughly review it. The statute calls for them to make a decision by the end of August. If they do not make a decision, it may not be a final date. *Comment from Paul Gardner:* The Board of Water and Soil Resources (BWSR), with Clean Water Funds (CWFs), is supporting a lot of manure storage. This helps to give farmers more flexibility, so they store more manure during those critical periods.

### Policy Statement Discussion

- Underground Utilities (*WebEx 00:23:00*)
  - The Clean Water Council heard a presentation about the Minnesota Underground Utility Mapping Project Team (UUMPT). They are working to reduce the risk to drinkable, fishable, and swimmable water of Minnesota with a project to map all of the underground utilities. They want to collect underground map data, in particular from the private sector, to reduce risks.
  - In review of the last draft statement, some language has been added. In the last paragraph, "These efforts include protection of data from competitive intrusion and security threats using appropriate procedures and advancements in geospatial technology that facilitate sharing of data via secure and limited access. Similarly, the Council encourages Minnesota's public and private sectors to support the UUMPT's mission through timely release of necessary data to Gopher State One Call."
- *Discussion/Questions/Comments:*
  - Victoria Reinhardt brought up the need for confidentiality of data.
  - *Question from John Barten:* The previous policy statements have been broad, and they usually are to request the Legislature take some kind of action. In this instance, a group has been identified (UUMPT) to be endorsed, and is this appropriate and too specific? *Response from Victoria Reinhardt:* This is more specific. Perhaps the language needs to be adjusted, so it is a little broader.

- Victoria Reinhardt: Perhaps use “support” instead of “endorse” in the language. Can we reference what needs to be done without endorsing your specific team project in the policy? *Response from Steve Swazee (UUMPT)*: Yes, there are two ways to protect data: web-mapping services and web feature services. The web mapping and web featuring services allow looking at a window of data without having it in a central repository. In addition, bounding box technology accesses a view of only the area requested. This provides two layers of security.
- John Barten: Perhaps, the Council could recommend that all underground utilities installed could be accurately recorded on the map to reduce the risk to drinkable, fishable, and swimmable water. Have the second paragraph include the confidentiality and safety items. *Response by Steve Swazee*: It is the combination of accurate mapping and authority to share.
- Draft Policy Statement Changes:
  - Update the paragraph language to read: *“The Council supports efforts to create an accurate understanding of Minnesota’s underground utilities infrastructure and encourages Minnesota’s public and private sectors to support this effort through a timely release of necessary data, in a secure and confidential manner. This effort will reduce the risk to drinkable, fishable, and swimmable water.”*
  - In the problem statement, the UUMPT could be referenced.
  - The committee would like these updates added to the statement for review at the next meeting. It will be sent to members a week before the next meeting.
- Question by Rich Biske: What are the expectations of the Council to follow through with this? Does it get Legislative action, or is it sent to other audiences? *Answer from Victoria Reinhardt*: There needs to be legislation that specifies the secure and confidential manner for utilities to provide this information.
- Question by Jordan Vandal: It looks like Colorado and Montana have implemented something without legislation. Steve Swazee: Both Colorado and Montana started this work with their departments of transportations (DOTs). They have required it on the state highway and federal systems. They add information over time with different funding mechanisms. Scotland is the furthest ahead. Participation is important; most of the utilities are willing to provide their information, but they need the technology. Scotland is smaller so it can do that. The two states received pushback from the telecom systems regarding proprietary information, leading to the bounding box concept.
  - *Comment from Jordan Vandal*: Fiber is often used for SCADA (Super Control and Data Acquisition). The SCADA can be used for water and wastewater utilities, which are very important, especially in emergency situations. Telecommunications could be mentioned in this document as well.
- Pharmaceuticals (*WebEx 00:55:30*)
  - This is review to see if the current policy statement needs revisions. There was a presentation from Dr. Seth Moore, and also the MPCA, revealing more information on pharmaceuticals. The results were alarming from the testing around Lake Superior fish, finding lots of pharmaceuticals present, including places with no human development nearby. The areas they looked into that had the highest amounts were impervious surfaces and buildings, which suggested airborne deposition.
  - There are three states (California, Washington, New York) with drug take-back laws that could inform the existing policy statement.
  - Paul can draft some language about pathways of pharmaceuticals into water.
- Discussion/Questions/Comments:
  - Victoria Reinhardt: In 2018, we were ahead of our time for this item. It is time to revisit. There is more information on how it is done in other states.
  - Paul Gardner: We can draft a revision covering new EPR laws and pathways.
  - Victoria Reinhardt: There are other ways to have an impact. This includes the pharmaceuticals that are not even being used, but flushed, rather than disposed of in a better way.
  - Larry Baker, citizen: One lesson in Minnesota is mercury. Using the example of mercury source reduction in products, perhaps making a list of the types of drugs that are likely to get into the environment could be helpful.

- Victoria Reinhardt: Also, the extended producer responsibility in this area. If the manufactures are not held to be accountable, it may not change. There are not any repercussions to them with higher prescription amounts. Washington State worked with the drug manufactures, to work together.
- Question from Raj Rajan: Are pharmaceuticals the single biggest problem, with respect to end of life products, from a water solution perspective in Minnesota? *Answer:* Yes.
- Paul will follow up on more research with the MPCA in this area, to work on updates. The Contaminants of Emerging Concern (CECs) has guidance on some items. There are other folks to follow up on as well.

**Impacts of Drought in Minnesota/New Groundwater Regulations on Water Exports**, by Randall Doneen, Section Manager, Conservation Assistance and Regulations, Ecological and Water Resources Division, Minnesota Department of Natural Resources (DNR) (WebEx 01:13:00)

- The drought monitor shows that 72% of the state is now experiencing severe drought. Stream flows are low in Great Lakes basin, the St. Croix River basin, most of the Rainy River and parts of the Red River, and Upper Mississippi basins. The fire danger is high over a majority of the state; very high danger dominates the west central counties. Lake levels are reflecting these impacts as well. Stream flows are at low flow levels.
- On average, June is Minnesota's wettest month. From April 1 to July 20, precipitation over most of the state has averaged less than seventy percent normal. The driest areas have been across the north, west, and central counties.
- There are different types of droughts:
  - All droughts start off as meteorological drought.
  - Agricultural drought: Reduced crop survival and productivity.
  - Hydrological drought: Reduced water in streams, lakes, and reservoirs.
  - Socio-economic drought: The impacts of this on people.
- There is a statewide drought plan (Minn. Stat. 103G.293). The DNR commissioner shall establish a plan to respond to drought-related emergencies and to prepare a statewide framework for drought response. The plan must consider metropolitan water supply plans of the Metropolitan Council. The plan must provide a framework for implementing drought response actions in a staged approach related to decreasing levels of flows. Permits must provide conditions on water appropriation consistent with the drought response plan.
  - Drought watch phase: A significant portion of the watershed is "abnormally dry" or in a "moderate drought."
  - Drought warning phase: A significant portion of the watershed is in a "severe drought", or for public water suppliers using the Mississippi River, the average daily flow at the USGS gauge near Anoka is at or below 2000 cfs for five consecutive days.
  - Once the warning phase happens, there are things the DNR can do. The state drought task force can meet and start to take some actions. This meeting happened on July 21. The state drought task force includes many state agencies, federal agencies, as well as other groups impacted. It has been about a decade since the last drought warning. They also work to provide a central source for the news media. The action would be for water users and suppliers to restrict and conserve water (50 percent above January water levels), which is in public water supplier permits.
  - For a restrictive phase, they require further restrictions (25 percent above January water levels), to reduce non-essential water use.
  - For the emergency phase, mandatory water restrictions go into place.
- Target Audiences:
  - Water appropriation permit holders: water supply, livestock production, farming, golf courses, nursery, energy, commercial, industrial, institutional, etc. In addition, local, state, federal government, and tribal governments. Additionally, legislators and media outlets.
  - Key communication channels: direct emails, GovDelivery, social media, news releases, radio PSA, weekly drought updates, new drought portal webpage, info center summary sheet, newsletters, and presentation.
- Recent Legislation:
  - The DNR proposed amendments to Minn. Stat. 103G.271. This is related to the bulk sale and transfer of water. The proposed amendments would extend protection of the Mt. Simon-Hinckley aquifer, to limit bulk sale or transfer of the water to fifty miles. An exception for public water suppliers, is transfer up to a hundred miles. It passed.

### Questions:

- John Barten: What is the long-term strategy of protection for the Mt. Simon-Hinckley aquifer? *Answer:* Conserve the aquifer for future population growth in Minnesota. It is an old aquifer, and it takes a long time for it to recharge. We want to only appropriate water that can be recharged, and this one recharges slowly.
- Jordan Vandal: How many monitoring wells exist across Minnesota that monitor the aquifers? *Answer:* I do not know the total number, but it has increased over the last ten years. We are working to increase it further.
- Jordan Vandal: In regards to DNR and water appropriation permits, municipalities submit reports of the amount they pump in each year. Do they need to state static and pumping levels to monitor? *Answer:* Yes, each needs to report their annual water use within ten percent accuracy. They do not require additional monitoring additional levels, but on a case-by-case basis they may request it.

### Banking Groundwater: [Study Examining Aquifer Storage & Recovery for Groundwater Sustainability in MN](#), by Carrie Jennings, Freshwater, Ph.D. and P.G. (WebEx 01:54:00)

- Jennings reported on a recent study funded by the Environment and Natural Resources Trust Fund. They are calling this “banking groundwater” because it is easier to say than aquifer storage and recover (or recharge). This involves many different groups working on this research. This study emerged from Freshwater’s groundwater report series “The Water Underground.”
- Will there be enough groundwater? There is a need to plan for changes in use in response to rainfall changes. This summer we are seeing prolonged droughts in some years, compared to mega rain events in others. This is due to the warming atmosphere and the amount of moisture it can hold, and the stalling of the jet stream.
- Obvious first steps:
  - Encourage conservation efforts. The cities know what to do, so we need to empower them.
  - Eliminate barriers to water reuse.
  - Recognize that in some areas aquifer recharge may be required. This promotes passive recharge practices, as well as to study active recharge.
- Managed aquifer recharge can use both passive aquifer recharge, and active – aquifer storage and recovery (ASR). ASR is different, because it uses injection of water into a confined aquifer. There is a permit structure for the ASR, and it has happened in one area of the state already.
- ASR Technology: necessary ingredients:
  - An aquifer of suitable character (unconsolidated quaternary or confined bedrock).
  - Source water of suitable character: stream flow, stormwater, remediated groundwater, reclaimed water, and industrial process water.
  - Transmission of source water to aquifer:
    - Indirect: infiltration basins/galleries as well as trenches
    - Direct: injection wells or vadose zone wells
  - Recovery: production wells or dual-purpose wells
- This is technology deployed around the world: <https://apps.geodan.nl/ggis-viewer/viewer/globalmar/public/default>. It is complicated interdisciplinary and state agency work. There is a fundamental hydrogeology investigation, understanding risks, and a clear idea if it makes sense financially and economically. There are regulatory and institutional requirements as well. They have created a team.
- Reasons to use ASR:
  - Create reliable seasonal water sources
  - Meet peak demand without building a larger treatment plant
  - Make water reserves less vulnerable to contamination
  - Conserve land area used for water storage
  - Sustain groundwater-fed ecosystems: trout streams, lakes and fens.
- Their team looked at a feasibility study. They chose four locations that had the best fit. The first step was to identify areas and aquifers to study. They characterized the aquifers of study and estimated the injection capacity. Then,

they evaluated environmental and engineering barriers. They evaluated the economics and policy barriers. Finally, they created project management, stakeholder engagement, and created the report.

- When estimating the injection capacity of an aquifer, a confined aquifer needs to be careful not to rupture the confining layer. In addition, you do not want to pump so much that it is flooding the surface. There is also a lot of complicated modeling and data requirements. There is good data on ground surface elevation because the state uses LiDAR, which is valuable for many reasons. There is also geological mapping for the areas selected. They calculate how much water is in the aquifer (saturated thickness), hydrologic conductivity and transmissivity, and search for the other data, found with the DNR webpages and databases.
  - In the Fargo Moorhead area, they found it is feasible to use injected water. Moorhead obtains 80 percent of surface water from the Red River. Drought can create a need for increasing groundwater. There is population growth, which will keep increasing. Pumping water from Moorhead to Buffalo Aquifer and back is an engineering hurdle (the treatment plant is not efficient economically to do so). There is an alternate aquifer below the water plant, but the aquifer has arsenic-bearing sulfide minerals and the water is 10-50 parts per billion arsenic, so it would require a filtering system.
  - In Olmstead County, Rochester is about 75 percent of the population in the county. They are decentralized with 33 municipal wells used for the city from the Jordan Aquifer. Population is increasing and water is declining. They have no major surface water features, so the wastewater plant could serve as a source.
  - Woodbury uses the Jordan – St. Laurence aquifer. All residents rely on groundwater, with the public water supply for 80 percent of the population. Total water demand is expected to increase by 27 percent from 2012 to 2040). The confined bedrock aquifers with enhanced permeability in the upper layer, and the shallow water table are more susceptible to contamination. (About 97 percent of the county is classified as moderately-high to very-high sensitivity to pollution). This is known because the PFAS chemicals from the 3M disposal sites (Oakdale, Woodbury, Cottage Grove, and Lake Elmo) have easily moved through to the bedrock levels.
  - Straight River Groundwater Management Area is the last feasibility area. However, it does not have a large population growth yet. There is also conflict between irrigation and the sustainable cold water ecosystem. There are increasing withdrawals and agricultural irrigation takes up 80 percent of irrigation in this area. It is hard to know what the maximum sustainable yields. They also tend to have high nitrates in the shallow wells. There were no viable water sources to inject in this area. It will not work in this area.
- Water chemistry was important in the feasibility study. Injecting oxygenated water can create issues with pore clogging and mineral mobilization. Also, groundwater does not always flow and mix as predicted; assumptions of homogeneity and isotropic conditions would need to be verified.
- There are solutions to the water chemistry issues, such as a membrane degasification system that can reduce the dissolved oxygen.
- The injection time is usually in the winter months when water use is low.
- Minnesota regulations would make ASR require a lot of planning. The EPA is currently in charge of injection of wells, and they retain that authority. A cost-benefit analysis will be different for every city. ASR could help with PFAS remediation by taking water that needs to be treated for PFAS and refilling it with injection of water.
- Recommendations for the next Legislative session:
  - Accelerate completion of aquifer properties database, with public facing interface (DNR).
  - Establish clear standards for when ASR could be considered, with the Minnesota Department of Health (MDH) as lead. This would be after conservation and reuse practices have been exhausted, with the economic and energy considerations, as well as the environmental benefits.
  - Establish a permitting and evaluation path (MDH). This would require testing prior to full implementation. It would also require monitoring after deployment.
  - Take steps to assume primacy over Class 5 Injection Wells from the EPA (MDH).
  - Test methodology in a pilot program in a controlled field setting and with a willing city.

*Questions:*

- *Question from Jordan Vandal:* Could you introduce issues into the groundwater when you inject water into it?  
*Answer:* Yes, but you would treat the water before you inject it into the well. You can of course have these kinds of risks, and it has happened. If you can model how the water is going to interact, you can be prepared; it is a reasonable thing to do. Having a treatment plant nearby with reverse osmosis, also decreases the risk to be able to manage it if the water becomes contaminated.

**Adjournment** (*WebEx 02:32:28*)

## Policy Statement Draft

### Minnesota Underground Utilities Mapping Project

28 July 2021

#### Policy Statement

To create an accurate inventory of Minnesota's underground utility infrastructure, the Clean Water Council (CWC) recommends that the State of Minnesota develop an accurate map of all underground utilities installed in the state and require Minnesota's public and private sectors to support sharing of necessary data in a secure and confidential manner.

The underground utility infrastructure mapping project supports the Clean Water Council's efforts to reduce the risk to drinkable, fishable, and swimmable water.

#### Problem

Damage to Minnesota's underground utilities can disrupt critical water infrastructure (drinking water and wastewater) and contaminate groundwater and surface water. In addition, without accurate mapping, public safety is a concern, especially when work is being done near petroleum and hazardous materials pipelines.

Damage most often results from data that is incomplete, inaccurate, or only exists on paper. This limits the ability of public and private entities from sharing data and ensuring its accuracy over time.

Examples of utilities that require accurate mapping include:

- Drinking water supply pipes
- Wastewater pipes
- Stormwater pipes and stormwater storage
- Petroleum pipelines
- Hazardous materials pipelines
- Telecom infrastructure, and
- Abandoned infrastructure that could transport aquatic invasive species.

Much of this data is held by the private sector, and therefore is not in the public sector's possession. It is imperative that the sharing of data can be accomplished in a secure and confidential manner.

#### Solution

Improving the accuracy of Minnesota's underground utility maps will reduce these risks. Gopher State One Call (GSOC) and the Minnesota Geospatial Advisory Council Emergency Preparedness Committee (EPC) have formed the Underground Utility Mapping Project Team (UUMPT) to address this issue.

The mapping project works to improve locate efficiencies and accuracy, reduce damage to the state's underground infrastructure, and improve operational and construction safety by leveraging current and emerging GIS technologies through cross-community collaboration that develops best practices and promotes technology solutions.

With security and confidentiality being critical, the efforts will include protection of data from competitive intrusion and security threats using appropriate procedures and advancements in geospatial technology that facilitate sharing of data via secure and limited access.

To: Clean Water Council Policy Committee

From: Paul Gardner, Administrator

Date: August 24, 2021

RE: Pharmaceutical Policy Statement Revision

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In looking at options for a revised pharmaceutical policy statement, I found several other sub-topics that might be of interest in addition to producer-financed collection of unused pharmaceuticals. Committee input would be welcome in order to provide focus to a revised policy statement.

**EPR:** An extended producer responsibility law (EPR) has been passed in several states that requires pharmaceutical companies to pay for the cost of safe disposal of unused pharmaceuticals. This is the format preferred by the Clean Water Council.

Key elements of the recently enacted laws include:

- Washington State passed its [Safe Medication Return](#) program in 2018. Rules for the program have been established and in November 2020 the program began.
  - Residents take unused medications to drop-off locations or use a mailing envelope, both for free.
  - The system is operated by MED-Project, an industry-funded organization
  - Drop-off locations are to be “equitable and reasonably convenient”
  - The proposed budget from MED-Project for April 2020 to May 2021 was \$4,017,000. Washington State has a population of just under 7.8 million people.
- New York passed a [drug take back](#) (DTB) program in legislation in 2018. Regulations took effect in March 2021.
  - Chain pharmacies required to have secure collection boxes and mail order pharmacies must provide mail-back envelopes.
  - Convenience standards assure adequate disposal options throughout the state.
- California passed its [Pharmaceutical and Sharps Waste Stewardship law](#) in 2018. Regulations went into effect in January 2021. CalRecycle will approve a stewardship program plan in October 2021.
  - Collection options must include pharmacy drop-boxes and mail-back envelopes.
  - The state is awaiting stewardship plans from the industry.
  - Implementation is expected in 2022.

## Monitoring and Assessment

There continues to be a steady stream of research showing the presence of pharmaceuticals in surface waters around the country. For example, recent research by Dr. Seth Moore from the Grand Portage Band of Ojibwe, the MPCA, and others included testing of more than 100 different pharmaceutical contaminants, almost all of which were detected, including from buildings and impervious surfaces in the northeastern corner of the state.

The MPCA completed a [report](#) in 2021 on pharmaceuticals and chemicals of concern in Minnesota lakes that was supported by the Clean Water Fund.

I'm looking to see if groundwater has been monitored for pharmaceuticals.

One logical place to monitor for pharmaceuticals would be land-applied wastewater treatment biosolids. The MPCA has received funding from the Environment and Natural Resources Trust Fund to sample biosolids for PFAS, so agencies could take the same approach with pharmaceuticals if desired.

## Prioritization of Pharmaceutical Contaminants

Since pharmaceuticals appear to be ubiquitous in Minnesota surface waters, it may be useful to know if some pharmaceuticals might be deemed more harmful to human health or aquatic life. This prioritization might lead to guidance for less harmful alternatives, targeted education for the consumers of priority pharmaceuticals, improved dispensing and/or waste management, or wastewater treatment changes.

The 2021 report by the MPCA prioritized the 55 contaminants it detected in 50 randomly selected lakes. The first level of prioritization was for Minnesota Department of Health screening values. Six chemicals ranked as high priorities for protecting human health. The second prioritization was a risk evaluation by Aquatic Toxicity Profile criteria for aquatic life. Five chemicals were of the highest priority (and did not include the chemicals ranked for human health). Many detected contaminants do not yet have health-based guidance.

It should be noted that this report focused on 50 *lakes*. Sources for lake-based pharmaceutical detection in lakes can be septic systems and possibly airborne sources. The largest volumes of pharmaceuticals is assumed to be from wastewater treatment plants that discharge to rivers. In addition to sampling biosolids, it might be useful to know if MPCA staff are aware of studies for sampling wastewater treatment effluent.

The Department of Health has also targeted education for populations who consume more fish. It might be useful to see if pharmaceuticals are among the contaminants that trigger additional fish consumption guidance.

## Other Existing Federal and State Efforts

- **New federal rule:** The U.S. EPA promulgated [Federal Rule 84 CFR 5816](#) in 2019 that helps reduce entry of pharmaceuticals into the environment.
  - Sewering of hazardous waste pharmaceuticals is banned after August 21, 2019 for health care facilities, reverse distributors (including controlled substances). Lethal pharmaceutical wastes are exempt for the time being.
  - The group of pharmaceuticals considered hazardous is limited.
  - Certain nicotine-containing delivery devices (vaping) and liquid nicotine products are defined as pharmaceuticals.
  - Pharmaceuticals that are used/reused/reclaimed aren't solid waste or hazardous waste
  - Retail pharmacies and hospitals that are already DEA registrants can become collectors
- **Minnesota** assumes regulated pharmaceuticals are hazardous waste unless you can document that they are not. Pharma is exempt from hazardous rules if you can document that it is not hazardous; or it is not sewered AND managed under DEA/Board of Pharmacy requirements AND destroyed by incineration at permitted solid waste facility.

- MPCA expects that in 2023 the state will ban sewerage of lethal pharmaceutical waste; require one-time employee training; and limit accumulation/storage to one year.
- State legislation in 2010 made it easier to allow for secure drop box locations. There are now 525 locations that have collected more than 1 million pounds since then.
- New dispensing technology at health care facilities, nursing homes, correctional facilities, etc. has reduced the waste of bulk prescriptions, in part due to legislation about five years ago.
- In 2019, [legislation was enacted](#) that creates a fee on opioids. The revenue is managed by the state's Board of Pharmacy for opioid treatment, prevention, and recovery. Manufacturers that sell more than two million units of opioids into Minnesota must pay an annual fee of \$250,000. The first evaluation of the program will happen in 2024.
- There are numerous states (including Minnesota) with [reuse and repository](#) systems.

## Clean Water Council Policy Implementation Progress

Policy	Adopted In	Key Policy Recommendations	Progress	Future Actions Needed	Legislation Initiated by Subcommittee on MN Water Policy 2021
Riparian Buffers	FY 13-14	Require buffers along Public waters and ditches and private ditches that drains into Public waterways	Minnesota Buffer Law was signed into law in June 2015 and requires 50 foot buffer along Public waters and 16.5 foot buffer along Public drainage systems	All the policy goals are achieved. The State Agencies and Local governmental units are responsible for ensuring the buffers are maintained.	<b>Buffer tax credit/payment; SF 251/HF508</b>
		Fund local implementation & enforcement	CWF provides funding for technical support for local units of government		
		One State Agency oversee Local activities	Board of Soil & Water Resources (BWSR) has overall implementation responsibility with technical support from other Agencies.		
Water Retention, Storage and Infiltration	FY 13-14	Require all major (HUC 8) watersheds outside 7-county metro area develop comprehensive watershed management plans.	All non-metro water planning and implementaiton is based on major watersheds. Water retention/storage goals have been incorporated in 1W1P requirements via statute (103B.801) and agency plan content requirements.	BWSR currently working on white paper looking at the technical issues, policy considerations, and potential costs necessary to scale up adoption of water storage and treatment. [This is from FY18-19]	<b>SF261/HF731 on water storage; HF 518/SF81 on MN River storage; HF932/SF1037 on water storage; SF 228/HF629 on aquifer recharge</b>
Living Cover for Drinking Water Protection	FY16-17	Require the establishment of living cover in vulnerable areas such as wellhead & upstream of surface water intakes	These areas are targeted, but voluntary, the progress is limited.		<b>SF793/HF1010 on Soil Health plan development</b>
		<b>Property Transfers:</b> Notify the buyers the potential existance of lead-pipes between the water main and taps, and provide informational material to mitigate risks.		Legislation may be necessary to ensure the seller discloses the existence of lead piping. [New Lead & Copper Rule requires water utility notify property owner about possibility of lead pipes]	<b>SF228/HF 629: Artificial aquifer recharge; SF884: Well monitoring plan and well owner education; SF148/HF630: Well testing at property transfer, monitoring for PFAS &amp;</b>

## Clean Water Council Policy Implementation Progress

Advancing Drinking Water Protection	FY 16-17	<p><b>Renters:</b> Notify the renters the potential existence of lead-pipes between the water main and taps and provide informational material to mitigate risks.</p>		Legislation may be necessary to ensure the landlord discloses the existence of lead piping. [Note above for Lead & Copper Rule revision in 2021]	<i>unregulated contaminants; SF883: Emerging contaminants assessment program</i>
		<p>Establish a panel of subject matter expert from around the country to advise MN lawmakers and Agencies ways to protect and improve drinking water quality.</p>	MDH has a contract with U of MN's Water Resources Center and Humphrey School of Public Affairs to convene an expert panel and their report is now in the review phase.	Policy Committee review the report and recommend policy actions [done 2020]; CWF recommended in FY22-23 to support implementation of report.	
		<p>State mandate source water protection plans (SWPP) for surface water systems.</p>	Minneapolis, St. Paul, and St. Cloud has them, but 21 others are yet to draft SWPPs. [This is from FY18-19]	CWC strategic plan: Complete revised source water assessments for all 23 surface water systems by 2025 & complete source water intake protection planning by 2027 .	
De-icing Chloride Reduction	FY 18-19 [revised FY22-23]	<p>Fully fund the Smart Salting applicator training and certification program, and MPCA chloride reduction program aimed at reducing salt use.</p>	The MPCA's Strategic Plan includes chloride reduction efforts. The MPCA has requested and CWC has recommended CWF monies to provide the training program statewide.	The CWC has recommended funding for the Chloride Reduction Program for FY22-23.	<i>SF884/HF1660: Establishing program to certify salt applicators; limiting liability; prohibiting water softeners that cause excessive chloride pollution; \$1M for chloride reduction program including on water softeners</i>
		<p>Request that the Legislature give MPCA the authority to charge a fee for chloride training.</p>		New recommendation FY22-23	
		<p>Provide liability protection for the Smart Salting program certified private winter de-icing applicators to reduce salt use.</p>	During 2018 and 2020 legislative sessions, bills were introduced in the both houses, but were not included in the Omnibus bills.	Re-introduce, pass and sign into law the liability protection Bill.	
		<p>Provide research funds to develop new technology, alternatives and best management practices</p>			

## Clean Water Council Policy Implementation Progress

		Encourage and support the adoption of the MPCA's Chloride Reduction Model Ordinance language by local government entities.		New recommendation FY22-23	
		Have the MPCA convene and lead a stakeholder process to develop recommendations for new labelling requirements on bags of de-icing chemicals sold in Minnesota.		New recommendation FY22-23	
Pharmaceutical Pollution Prevention	FY18-19	Require the words or symbols for “do not flush” be printed on all prescription pharmaceutical labels, and remove any existing instructions to flush unused portions.	The Policy approved in mid 2018, hence CWC has not taken any action yet. The MPCA is working on a small card with collection information that can be attached to prescription medicine bags.		
		Adopt a “Secure Drug Take-Back-Act” modeled after the legislation recently adopted by Washington State.		Establish a coalition of stakeholders to help draft legislation and adoption of the Act during the 2019 legislative session.	
Increasing Continuous Productive Vegetative Cover	FY18-19	Establish a Minnesota Agricultural Diversification Steering Council	The Council recommended funding to establish the Minnesota Agricultural Diversification Steering Council at the University of Minnesota.	Legislature to approve the CWC's recommendation.	
		Create a Minnesota Agricultural Diversification Network			

## Clean Water Council Policy Implementation Progress

Chloride Reduction: Water Softening	FY22-23	Provide financial support and technical assistance to municipalities to reduce chloride discharges and allow flexibility for how municipalities achieve these reductions.		The CWC has recommended funding for the Chloride Reduction Program for FY22-23.	<b><i>SF884/HF1660: Establishing program to certify salt applicators; limiting liability; prohibiting water softeners that cause excessive chloride pollution; \$1M for chloride reduction program including on water softeners</i></b>
		Update the state plumbing code to effectively prohibit the installation of new water softeners in Minnesota that use timers rather than on-demand regeneration systems.		New recommendation for FY22-23	
		Fund a program for activities, training, and grants that reduce chloride pollution. Grants should support upgrading, optimizing, or replacing water softener units.		The CWC has recommended funding for the Chloride Reduction Program for FY22-23.	
Disclosure of Well Water Quality at Time of Sale	FY22-23	Require all sellers of real property to test drinking water from wells for bacteria, nitrate, arsenic, manganese, and lead			<b><i>SF148/HF630: Well testing at property transfer for arsenic, bacteria, and nitrate (but not lead or manganese)</i></b>
		Inform buyers and renters of the test results			
		Direct buyers to mitigation guidance from the Minnesota Department of Health			

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2	<b>Animal (Feedlot) Management</b>	No action at this point. Can ask Glenn about how things are going.	Enforce existing feedlot laws.	Middle priority (11th of 21 topics). Effective oversight and enforcement of existing laws is important. Should not be a Council priority - agencies already enforce the law. Current feedlot situation is terrible - deserves significant attention. Highly concerned about upstream feedlot impacts to Prairie Island Indian Community.	11	Discussed in January 2017. Committee asked MPCA Feedlot Program staff to return to a future meeting with policy ideas but MPCA declined. Recommend forming a Committee subteam to meet with MPCA staff separately to discuss potential ideas.
2	<b>Animal Management (Nonpoint Source Implementation)</b>		(1) Promote practices to reduce animal (cattle) access to streams. (2) Regulations to reduce animal (cattle) access to streams. (3) Develop and implement a 'working lands' permanent conservation easement program for livestock grazing and pasture. Eligibility should be limited to highly sensitive land and should require livestock management plans.	Higher priority (6th of 21 topics). Original idea closely related to #11 under Water Governance - could combine and have an overarching feedlot policy. Could be good if converting row crop to vegetation but not paying to keep pasture. Concern about targeting sensitive lands for grazing. High concern - animals with direct access to streams and impacts. Create incentives for working land easements.	6	MDA provided pros/cons of stakeholder ideas to the Committee in June. Committee may revisit this topic with stakeholders in late fall 2016.
2	<b>Biofuels Standard</b>	No action. Currently not a major concern	Develop a state perennial cellulosic biofuels standard (e.g. 10% by 2030 of our total fuel mix from perennial cellulosic biofuels).			Added this policy idea on 1/27/17 from stakeholder comments.
1	<b>Chloride</b>	Policy Statement in 2017. Bills introduced in 2017 and 2018, but no statute yet. A similar bill may be introduced 2019 session	(1) Reduce liability for private applicators who attend training/are certified with smart salt application techniques for winter snow and ice management. (2) TBD - Example (promote alternative practices to reduce the amount of chloride used for de-icing impervious surfaces). (3) Incentives and education on sanding roads and stormwater capture as well as the chloride trainings.	Middle priority (12th of 21 topics). Need to figure out if this policy would have water quality benefits. Chloride is a permanent pollutant and needs decisive action. Liability makes sense but there are higher-priority options to attend to. High priority in urban areas - need to provide alternatives and work on liability issues. This is one of the greatest challenges for future water resources in Minnesota. Too detailed for policy development.	12	Committee decided not to pursue in 2016 as they already had too many topics to discuss. Added #3 on 1/27/17 from stakeholder comments. <b>Committee decided on 5/26/17 that this would be a <u>high priority topic to discuss in 2017-2018.</u></b>
2	<b>Pharmaceuticals</b>	Policy Statement in 2018. Sen. Eaton was interested in this topic. Many Opioid bills introduced has parts of what CWC recommended, but only for Opioids.	TBD - Example (Promote prevention of CECs through prescription drug collection efforts).	Lower priority (19th of 21 topics). It's wise for health care, pharmacy, law enforcement, and environmental sectors to partner with the State/LGUs to create a statewide drug take-back program. Supporting a study process seems to make sense. Other topics are higher priorities though. Doesn't go far enough since it doesn't address the fact that the chemicals we excrete from our body enter wastewater or septic systems. Also doesn't address the widespread and unregulated use and disposal of animal pharmaceuticals. Need better information on CECs. Important but we need more research on CECs first. Duplicative of other efforts.	19	Discussed in January and April 2016. Committee decided not to pursue this topic because agencies did not have any specific policy recommendations ready at that time. Topic named changed from Contaminants of Emerging Concern (CECs) to Pharmaceuticals in May 2017. <b>Committee decided on 5/26/17 that this would be a <u>high priority topic to discuss in 2017-2018.</u></b>
1	<b>Drainage</b>	<b>BWSR incorporates water retention into 1W1Ps. Amount of attention depends on the watershed.</b>	(1) Develop drainage performance standards and require Best Management Practice treatment where appropriate. (2) Improve watershed resilience through watershed management, including agricultural drainage systems. (3) Leverage local agricultural accountability by creating agricultural management areas and drainage authority accountability at the subwatershed level. (4) Incentives for reduced runoff volume, peak flows and sediment delivery. (5) Water storage to reduce peak flows (detention storage) and to reduce volume of runoff and carrying capacity (longer term storage that provides more infiltration and/or evapotranspiration). (6) Enhanced integration of multipurpose drainage management in local water plans, including 1W1P.	Higher priority (2nd of 21 topics). Item #1 is most important - this is vital and would be more effective than incentives. Very high priority - incentives won't change practices on scale needed. Consider requiring permits for new drain tile installation with performance standards for flow and nutrients. Item #3 is an important concept. Item #2 can help reduce nutrients and maintenance costs. Huge issue and we are going in the wrong direction - need to know how many more lands could be tiled.	2	Discussed in April, June, and October 2016. Sent a letter to the Drainage Work Group (DWG) from the Policy Committee on 11/18/16 to ask them to review a water storage policy and provide recommendations on how to better align drainage law and watershed planning objectives. Policy Chair and Vice Chair plan to attend a future DWG meeting to discuss this in more detail (future DWG mtgs are June 8, 2017 and July 13, 2017).
1	<b>Local Water Governance and Planning</b>	<b>No action yet.</b>	(1) Reform watershed governance (e.g. combine some WDs/WMOs with SWCDs). (2) Consider policy options for watershed governance to deliver water quality goals for the agricultural sector. (3) Require watershed governance structures statewide that have full-fledged autonomy to act (e.g. raise funds, regulate, and execute priorities). (4) Enhance and streamline local watershed planning and align it with One Watershed, One Plan and Watershed Restoration and Protection Strategies (WRAPS). (5) Manage water using One Watershed One Plan. (6) Promote infiltration and water retention in local watershed management plans. (7) Provide tax levy authority in greater Minnesota to allow the same capacity for local water planning, management and implementation that exists in the Seven-County Metropolitan Area. (8) Regulate water quantity through watershed districts. (9) Require local comprehensive watershed management plans that set water retention, storage and infiltration (volume control standards) that will hold the first X inches of rainfall for at least 24 hours by the year 2020. (10) Require local water management authorities to implement water plans. (11) Require that local comprehensive watershed management plans address altered hydrology through water retention, storage, infiltration goals. (12) Create a timeline and process for creating of Watershed Districts to correspond with One Watershed One Plan comprehensive watershed plans.	Higher priority (1st of 21 topics). Council should pursue topics items #3, #7, #8, #9, #3, and #7 because LGUs need better base funding. Items #8 and #9 - high priority ideas - need volume control in all areas to get to clean water. Good ideas for watersheds to be able to raise funds and implement water retention projects. Creating local watershed authorities will be most effective at changing behavior. Item #9 is important for parking lots. Item #3 is important now because watershed planning efforts are underway. Item #3 is important because we need these groups to implement 1W1P activities.	1	Committee decided not to pursue in 2016 as they already had too many topics to discuss. Added policy idea #12 on 1/27/17 from stakeholder comments.

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1 Nutrients	State is working on a new Nitrate report (2020?). Can have State Agencies give a status update.	(1) Consider a polluter pays principle for nutrient management. (2) Recommend a nutrient accountability program (e.g. fall fertilizer application prohibitions). (3) Recommend adding the word "sustainable" to maximum return to nitrogen guidelines provided by the University of Minnesota. (4) Institute a fertilizer surcharge to provide compensation for drinking water treatment where contamination has occurred. (5) Direct the MPCA to create nitrate standards for surface waters by July 1st, 2018. (6) Fix the MDA's Nitrogen Fertilizer Management Plan. (7) UMN create Maximum Sustainable Return to Nitrogen guidelines that prescribe the level of fertilizer application at which surface and ground waters will not be compromised. (8) Expand the use of point to non-point trading for net benefit to water quality. (9) Create a timeline and process for creating of Watershed Districts to correspond with One Watershed One Plan. (10) Develop policy and funding recommendations to reduce nitrogen loads leaving Minnesota by 20% by 2025 and 45% by 2045.	Higher priority (7th of 21 topics). Item #3 - clarification needed - can't just add a word - need to create fertilizer recs based on water resources. Items #1-4 are all high priority ideas. See social costs of nitrogen article. May be politically difficult.	7	MDA provided pros/cons of stakeholder ideas to the Committee in June. Committee may revisit this topic with stakeholders that developed policy ideas in early 2017. Added policy ideas #5-#10 on 1/27/17 from stakeholder comments. <b>Committee decided on 5/26/17 that this would be a high priority topic to discuss in 2017-2018.</b>
2 Point Source Implementation		(1) Consider changing caps and match requirements for CWF infrastructure grants. (2) Address WWTF infrastructure needs so funding can be more sustainable.	Lower priority (16th of 21 topics). LGUs need funding for water infrastructure projects. Funding already available through PFA. Communities need funding for planning stages of projects. Nitrogen remediation very expensive for rural towns. Need to add scoring criteria that values "green or natural infrastructure" and non-point trading.	16	Committee decided not to pursue in 2016 as they already had too many topics to discuss.
1 Policies Topics TBD		Placeholder for water policies that emerge from the Governor's 25% by 2025 Water Quality Goal.			
1 Protection (Nonpoint Source Implementation)		Protect targeted lands from the worst impacts from land use conversion (e.g. require Best Management Practices if x number of acres is converted from forestland to potatoes).	Higher priority (3rd of 21 topics). Need some sort of "no net increase" in pollutants to waters policy. Need more information to evaluate this. Recommend creating "Freshwater Protection Areas" to protect high quality aquatic habitats. Landuse conversion is primary driver of altered hydrology and water quality - focus should be to evaluate strategies to maintain forests. Protecting vulnerable lands supporting healthy waters is far more cost-effective than restoring degraded waters.	3	Discussed in April and May 2016. Decided to wait until the Pineland Sands research area studies are completed.
	Can have MPCA/BWSR provide an update as to what is happening with WRAPS and 1W1P to protect high value water.	(1) develop policy and funding recommendations to protect healthy waters. (2) create property tax incentives for perennial cover in drinking water supply management areas and critical water supply source areas. (3) Expand the Scientific and Natural Area program to include lakes and rivers of biological significance. (4) Use existing authorities to strengthen protection of healthy surface water and groundwater through designation.			Added this policy idea on 1/27/17 from stakeholder comments.
2 Septic System Management	Check with MPCA staff to discuss how much this is an issue for HUC8 or higher watersheds.	Enforce existing septic system laws.	Middle priority (9th of 21 topics). Effective oversight and enforcement is important, Agencies/LGUs should already be enforcing this law - not a topic for the Clean Water Council. Need Clean Water Fund dollars to enhance/match low/no interest loan programs. One of the most important issues.	9	Committee decided not to pursue in 2016 as they already had too many topics to discuss.
2 Shoreland Rules		(1) Give local governments the backing and support to make variance decisions that protect lakes and rivers. (2) Recognize higher standards in shoreland ordinances are an effective way to address water quality stressors and risk and make it a priority to provided funding to local governments to adopt them. (3) Provide a strong statement on the importance of vegetative riparian buffers in urban areas. (4) Recommend that the State act to strengthen how shoreland protections for public water resources are implemented at the local level. (5) Add a special set of criteria for variances in shoreland areas.	Lower priority (17th of 21 topics). Unclear purpose and intent. Not sure variances and urban buffers will have water quality impacts. Items #1 and #2 - supporting LGUs with buffers important particularly for Public Water Wetlands. Item #3 - urban areas contribute less nutrients to the Mississippi River so may be valuable in some cases but not priority at the statewide scale.	17	Presentation on Shoreland Rules at April full Clean Water Council meeting. Discussed in May and June. Recommended that DNR and implementers of shoreland rules discuss aspects of shoreland rules that could be updated. Committee still needs to discuss variance criteria too.

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2 Soil Erosion		Assist in advancing reforms that will require on Highly Erodible Land (HEL) a conservation plan or system which will prevent water and wind erosion from exceeding tolerable soil loss limits as identified in the U.S. Department of Agriculture's Field Office Technical Guide.	Middle priority (14th of 21 topics). Applying concept to non-HEL lands could be high impact. If HELs already require a conservation plan than not needed, if they don't this is a sound strategy if enforced. Support BWSR soil-loss ordinance work - tolerable (T) is a vague concept for LGUs to enforce. Good idea but will be almost impossible to quantify when this is exceeded so success unlikely.	14	Discussed in March and June 2016. Tabled further discussion on this topic for that year because Minnesota passed new soil erosion loss language last year and we need to know the results of that effort first. Enforcing existing laws should not be a Council item. #3 - especially supportive of this idea. Variance Board often grant variances - it is the rule rather than the exception. Need incentives for landowners to protect shoreland beyond minimum standards - could sign a long-term covenant (50 year) - this could get Clean Water Fund dollars out to people on the ground and change behavior and build grassroots support. Incentives need to be revenue neutral for local governments.
1 Soil Health		Adopt a soil health policy statement similar to other state policies related to water. Needs to address both urban and rural areas.	Lower priority (18th of 21 topics). Too vague - need more information. Surprised this is not already a policy. A policy statement would draw attention to this critically important resource and help pave the way for future efforts - soils are the foundation for many ecosystem services including clean water.	18	Discussed in March, September, and October 2016. John Barten is willing to draft a policy on reducing soil compaction from construction activities in urban areas.
2 Standard of Care and Best Management Practices (Nonpoint Source Implementation)		(1) Develop performance-based standards for nonpoint pollution sectors (e.g. consider doing this by watershed). (2) Consider policy options that require a basic "standard of care" for crop agriculture. (3) Promote landscape Best Management Practices (BMPs) (e.g. buffers, BMPs on new tile systems, cover crops, no-till, etc.) for nutrient management. (4) TBD - Address challenges for landowners to implement Best Management Practices. (5) Develop and implement research and demonstration sites to provide information and education, and actively engage farmers in water quality BMPs. (6) Explore a tax incentive program to promote conservation implementation. (7) Support and promote the opportunity to capture market value for water quality protecting and enhancing agricultural products and services.	Higher priority (4th of 21 topics). Item #2 is needed to require a standard of care. Item #5 - don't need more research. Item #6 is promising but politically hard because LGUs lose tax base.	4	MDA provided pros/cons of stakeholder ideas to the Committee in June. Committee may revisit this topic with stakeholders that developed policy ideas in early 2017.
2 Sustainable Water Use		(1) Improve industrial water efficiency. (2) Motivate consumers to conserve water. (3) Promote regional water supply and sustainability. (4) Use agricultural irrigation water more efficiently. (5) For Budget Committee - could take Met Council water efficiency grants and industrial water use programs statewide. (6) For Budget Committee - for ag. irrigation efficiency - need more training for producers though UMN Extension.	Middle priority (10th of 21 topics). Item #2 is helpful but not a priority outside of a few targeted areas. Item #3 is important - some regions are facing dwindling water supplies. What you really need is a stronger approach to align permit issuance with available sustainable ground water supplies. Need to target largest users and provide data to communities. Important - how about protecting water supplies with better wellhead BMPs. Item #4 is important - depends who the consumer is - daily residential use little impact compared to water use in industry and agriculture.	10	Committee decided not to pursue in 2016 as they already had too many topics to discuss. Committee would like agencies to provide more detailed policy recommendations on this topic. Could have a few water utilities present. Didn't discuss industrial water efficiency much so that could be a future meeting topic.
2 Tax Incentives for Water Quality		Increase storage/retention by providing property tax relief for sustaining wetlands, flowage easements and flood retention structures that also reduce nutrients.	Lower priority (20th of 21 topics). Need more specificity. There isn't money to provide these incentives. Tax incentives can be effective. Potential to work with forestry stakeholders on this topic. Important way to broaden adoption of practices. Should include the idea of water storage here too.	20	Committee decided not to pursue this topic in 2016 as it is more of an action than a policy topic. However, the Committee may want to hear more about this topic in 2017 to better understand it. Added policy idea on 1/27/17 from stakeholder comments.
2 Urban Stormwater		(1) Control and filter runoff with green infrastructure. (2) Institute Minimal Impact Design Standards. (3) Provide funding to deploy smart technology. (4) Require stormwater capture at construction sites.	Middle priority (13th of 21 topics). Items #1, #3, and #4 are already required for urban projects. Item #2 - MIDS need further promotion - valuable tool. MIDS designed as voluntary tool so if required there would be political pushback. Item #4 is important - have seen tremendous amounts of erosion from construction sites. Would like to see incentives for construction stormwater training. A lot of effort has and will be done already on this topic. Need to utilize green infrastructure and consider trading.	13	Committee decided not to pursue in 2016 as they already had too many topics to discuss.
1 Water Reuse					Water reuse is waiting for interagency team to develop a white paper in 2017. <b>Committee decided on 5/26/17 that this would be a high priority topic to discuss in 2017-2018.</b>

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2 <b>Water Storage</b>		(1) Revisit Council 2014 policy recommendation. (2) Public land issues related to water storage. (3) Wildlife versus storage. (4) Wetland design. (5) Fairness for funding water storage projects. (6) Expand the current Council policy on water storage and retention to add guidance to agencies and/or local governments. (7) consider developing a set of recommendations/principles designed to integrate all of the pieces such as soil health, living cover, conservation cropping systems, and water storage. (8) A statewide soil health watershed policy. (9) BOC discussed this idea in March 2016 - where appropriate, require comprehensive watershed management plans that use the One Watershed, One Plan framework to include water volume reduction (or storage) goals. (10) There is so much overlap on these topics – should consider developing a more overarching policy. For example, a policy recommendation that watershed plans have water quantity (storage) and water quality goals/requirements. (11) See tax incentive idea above.	Middle priority (8th of 21 topics). Topic seems to be covered elsewhere. Need an integrated approach. Critical important due to climate change. Item #7 seems the best way to integrate all these ideas. Items #9 and #10 are the best ideas - to incorporate water storage into watershed plans. A lot of opportunity/support for this topic (from farm groups).	8	Discussed in January and June 2016. Drafted proposal to revise 2014 Council policy recommendations related to water storage. "Proposed 2016 Policy Statement: The Clean Water Council recommends that comprehensive watershed management plans (i.e. One Watershed, One Plans), developed under Minn. Stat. § 103B.801, must develop, where appropriate, goals and strategies for flow reduction, sediment reduction and nutrient reduction. The goals and strategies should be expressed in quantifiable and measurable terms such as acre-feet of water storage, peak flow reduction, tons of sediment, and pounds of phosphorus in relation to the reductions necessary to meet water quality standards." See also Nov. 2016 letter to the Drainage Work Group.

### Topics Deferred

3 <i>Agricultural Certification</i>		(1) Enhance Minnesota's certification system for responsibly produced agricultural product. (2) Clean Water Certified Products - promote products that have been produced with water-friendly methods using a system based on attributes/standards. Could use the MN Agricultural Water Quality Certification Program (MAWQCP) as a standard for certification.	Lower priority (15th of 21 topics). MAWQCP fails to protect waters from subsurface nitrate delivery so needs to be revised before it is used as a standard for certified products. MAWQCP scoring thresholds need to be fixed before this should be used. Not a priority for the Council unless there is evidence this can be scaled up. Needs to be constructed carefully so a "Clean Water" certification actually means it is less environmentally destructive. Using market forces could work. Should increase participation as nonpoint ag. continues to be a large contributor to water quality impairments. Need to establish benchmarks and annual improvement of water quality goals at the watershed level and MAWQCP can help support private sector efforts. Minnesota Farmer's Union sees interest growing with farmers in this program.	15	Discussed in March. Committee decided not to pursue this topic as it doesn't seem ready and is a very large issue to take on.
3 <i>Aquatic Invasive Species</i>		(1) View AIS as biological pollutants. (2) Change the way people have access to public waters to limit the spread of AIS.	Lower priority (21st of 21 topics). Need more information - would this be a change to agency jurisdiction? Limiting access to water is very unpopular. Both good steps - new invasive can severely impact water quality. Costs savings with prevention efforts. For river systems, enforcement does little to prevent the spread of AIS. Most AIS impacts are ecological - important issue to address but other entities better suited to address this issue.	21	Discussed in March. Committee decided not to pursue this topic as there is a statewide AIS Advisory Council discussing these issues.
3 <i>Cover Crops (insurance)</i>		Assist in advancing the adoption of cover crops by requesting the Federal Risk Management Agency (FRMA) to allow insurability of a crop that has been properly interseeded and to request the Natural Resources Conservation Service (NRCS) to rewrite their Cover Crop Standard to encompass this practice.	Higher priority (5th of 21 topics). Removing barriers to cover crop adoption important. High priority for ability to make landscape scale change. Could significantly improve water quality. See Dunn County, WI for example of civic governance that increased cover crops to thousands of acres. Likely for federal program to make the change? Lots of interest with farmers - RMA an issue that needs to be addressed.	5	Discussed in March and May 2016. Federal government is already working to remedy this issue so no action needed.