Response to Legislative Water Commission questions following the 10/17/17 meeting in Mankato.

1. Do you have a database from which you can create a master chart that lists the municipal WWTFs and the industrial WWTFs that are in the Minnesota River Basin, denote which ones tested for chloride and which exceed standards, which ones discharge to lakes (if any), the type of treatment at each (ponds, mechanical, oxidation ditches, etc.), and which ones have new P standards to meet the RES? From that, can you then create a more comprehensive geographic picture of which facilities will need to or may need to upgrade/trade due to the RES standard, for both mechanical and pond WWTFs? Under-laying these sites with the impaired reaches and their contributing watersheds would also be useful.

   A) Chloride - The attached spreadsheet (MN_Basin_Cl.xlsx) lists all facilities in the Minnesota River Basin (MRB) that will need a chloride limit upon permit reissuance. Facilities will need a permit limit based on monitoring that shows effluent will cause the receiving water to be above the chloride standard. Facilities not needing a limit have monitored low effluent chloride concentrations, or they do not yet have sufficient monitoring data to make a determination. This list went to permittees prior to the Mankato meeting in October.

   The attached map (MNRIVERCl.jpg) shows the location of all facilities within the MRB that have monitored for chloride and which will require a limit. Facilities are not listed based on treatment type because chloride generally passes through all existing treatment designs at the same rate. Effluent strongly reflects the influent wastewater with little to no reduction in the system, regardless of the treatment type. In most circumstances source reductions are the only way to achieve significant effluent chloride reduction. As a result of State law and MPCA practice discouraging lake discharges, it can be assumed that all outfalls are to rivers.

   B) Phosphorus – We have provided a series of maps (mn_basin_combined-figures.pdf) that illustrate the location of facilities and the magnitude of their discharge relative to future limits. For the MRB, we have only conducted a detailed analysis on larger facilities that are generally mechanical and continuously discharging. The facilities with colored dots are also explicitly mentioned in Appendix B of the Lower Minnesota River Low Dissolved Oxygen TMDL (2004). The smaller facilities, shown on the map as stand-alone grey dots, are mostly ponds. It is assumed that most of these will continue to discharge at their current range of about 2 mg/L. Map pages 2 through 23 show the facilities within the drainage area to every algae impaired (red) reach in the Minnesota River Basin. These types of graphics will be useful as we consider more pollutant offsets or trading proposals. (Note that the Lac Qui Parle and Minnesota River Headwaters watersheds are excluded because future limits for facilities within these watersheds will be based on Lake Lac Qui Parle or other more localized issues.)

2. Fundamentally, is the RES connected to a state narrative standard about nuisance algae (as opposed to federal or state numerical standards)?
   a. No. While Minnesota has narrative eutrophication standards, the new phosphorus limits to protect for RES are based on numeric standards adopted in 2014. The criteria (the numeric part of the standard) are spread throughout Minn. R. 7050.0222.[1] One example is the eutrophication standards for the North River Nutrient Region, which are listed as follows:

[1] https://www.revisor.mn.gov/rules/?id=7050.0222

North River Nutrient Region:

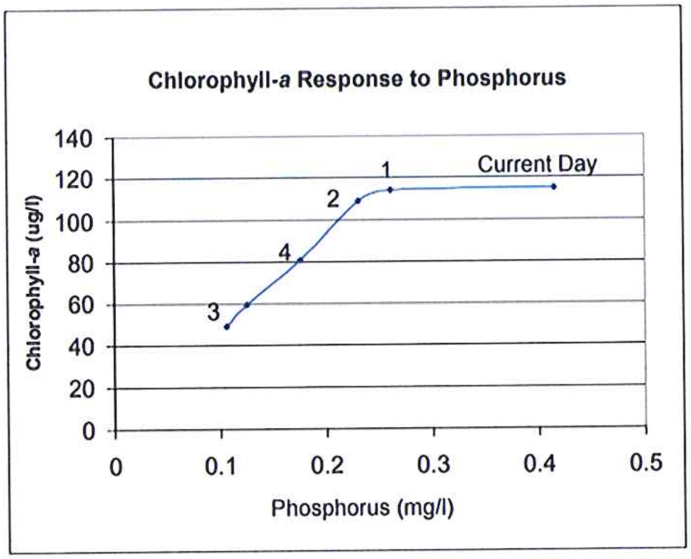
Phosphorus, total	µg/L	less than or equal to 50
Chlorophyll-a (seston)	µg/L	less than or equal to 7
Diel dissolved oxygen flux	mg/L	less than or equal to 3.0
Biochemical oxygen demand (BOD_5)	mg/L	less than or equal to 1.5

3. You indicated that even with the significant reduction in phosphorus in the MRB, there hasn't been a commensurate chlorophyll reduction (perhaps because the long-term annual average P is still high. Has MPCA looks at whether P is entrained in the MN River sediments and whether bottom feeding fish are releasing it when they disturb the sediments?
    a. Yes, while we have recorded reductions in total phosphorus (TP) loading in the Minnesota River, the chlorophyll-a (algae indicator) reductions have not followed. Figure 5.3 (page 20) of the Lower Minnesota River Low Dissolved Oxygen TMDL is derived from model output and shows the relationship between phosphorus and chlorophyll-a.[2] Currently, long term summer average phosphorus in the Minnesota River is roughly between 0.2 and 0.3 mg/L (or 200 to 300 µg/L). The concentration of chlorophyll-a only begins to decrease at about roughly 0.25 mg/L (250 µg/L) TP. Once we reduce long term summer average phosphorus below this level we will begin to see reductions in algae.

       Our water quality model considers sedimentation and resuspension of phosphorus at the bottom of the river channel, but it does not simulate carp or other vertebrate life. There could be internal loading at low flow but there are also transport losses, so we generally find rivers have lower than expected TP at low flows. Internal loading is often more common in lakes with very fine sediments which have low oxygen water. The TP in the Minnesota River has been reduced during low flow and will be reduced further as RES limits are implemented.

[2] https://www.pca.state.mn.us/sites/default/files/tmdl-final-lowermn-doreport.pdf

Figure 5.3 Model scenario outputs comparing phosphorus and chlorophyll-a relationships



4. If there has been a 65% reduction in P in the MRB, then haven't both the 35% P.1 and 51% P.2 goals been met?
    a. The referenced goals are from a combination of sources including phase 1 of the phosphorus general permit (35%), the low dissolved oxygen (DO) TMDL (51%) and more recent work to analyze RES limits in the basin (65%). We have achieved the 35% reduction goal (Phase 1 Minnesota River Basin General Phosphorus Permit) with both actual and authorized loading. Currently, facilities are *actually* discharging near the 51% reduction goal (Low Dissolved Oxygen TMDL) even through permit limits may not be set at this level. However, because their permit limits are not set at this level, they will likely increase loading through time as communities grow. The TMDL goal (51% reduction) is sufficient to avoid low DO at the outlet of the basin, but it is not sufficient to eliminate excess algae in river reaches within the basin. In order to achieve RES we need a 65% reduction which will be achieved primarily through new summer limits. Many facilities can meet these already because they have already invested in control technology. Other larger facilities will need to reduce loading to meet new limits.
5. There was a graph that showed which cities had excess capacity (blue bars) and those that were deficient (red bars). Can this data be shown geographically within the context of the watersheds draining to the impaired reaches?
    a. See attached maps (mn_basin_combined_figures.pdf). Facilities with blue icons can meet future limits. Those with red icons cannot meet their future limit.
6. There are 40 WWTFs in the MRB needing a chloride limit. Are there an additional 60 or 100 WWTFs outside the MRB that need chloride limits. Can I get a map and a list of all the facilities that will have chloride limits?
    a. CL_Limits_2017.xlsx contains a list of all NPDES facilities statewide with chloride monitoring data as of 10/2017. Column C indicates whether these facilities will need a limit or not. This was derived using a general process and will be examined in greater detail during reissuance. The document MN House Chloride.pdf contains a map of all facilities with chloride data, statewide. RP stands for "reasonable potential" which is technical jargon meaning "needs a limit."

7. For all the facilities that have chloride limits, do you have corresponding information regarding whether that town's water comes from surface water, centrally managed groundwater, or groundwater from distributed wells?
    a. We do not maintain a database of municipal drinking water sources, as drinking water is regulated by MDH. Most drinking water in Minnesota comes from groundwater, which can be quite hard. Some cities do have extensive distributed well networks. Far fewer individual cities are using surface water.
8. 65% to 81% of the WWTF chloride load comes from home water softeners. Where does the remainder come from? In comparison to the total chloride load in receiving waters, what % is contributed by WWTFs?
    a. For most effluent, the majority of chloride comes from home softeners. Other sources include industrial or commercial sources, other residential sources, and some road salt infiltration. The overall annual chloride break down between road salt and effluent is not well known, but David Lane from the city of Rochester suggested, in a presentation to MPCA's Citizen Advisory Board, that the breakdown was approximately 50%/50%. What we do know is that the road salt affects rivers during the cold season; effluent has a disproportionate impact on surface water during low flow periods, which we generally think of as mid to late summer. So, both sources can cause elevated chloride in streams sufficient to harm fish and bugs. Given that both road salt and water softeners have been used for such a long time, the remaining fish and bug populations in impacted streams tend to have less diversity and are tolerant of pollution.

Chloride in Municipal Wastewater and the Chloride Working Group Process

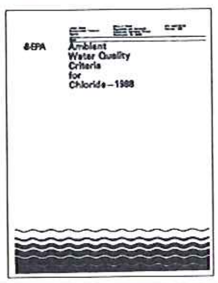
Scott Kyser and Elise Doucette

Minnesota Chloride Aquatic Life Standard

230 mg/L

Is the 230 mg/L chloride standard outdated?

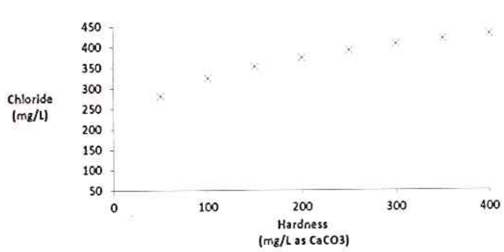
- YES!
- Standard adopted in MN Rule in 1991
- Based on 1988 EPA Science



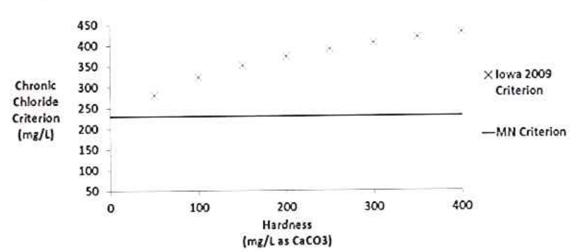
What about the Iowa chloride standard?

$$Iowa\ Chloride\ Standard = 287.8 * Hardness^{0.205797} * Sulfate^{-0.07452}$$

Iowa 2009 Chloride Standard



MN vs Iowa 2009 Chloride Standard



Iowa 2009 chloride standard is outdated

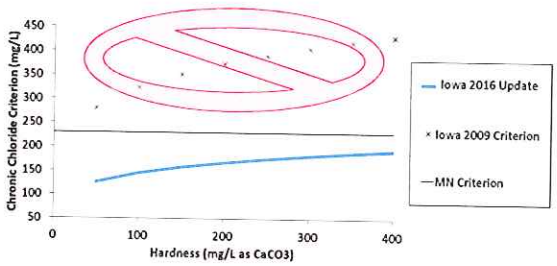
- In 2012, Missouri tried to adopt Iowa's 2009 formula and was disapproved by EPA

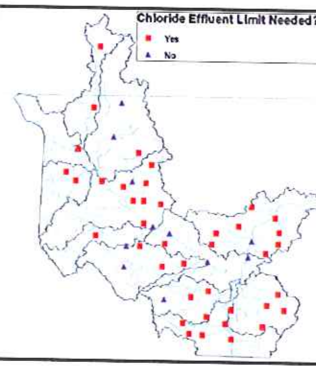
Shortly after Iowa's adoption of the revised criteria, several additional studies were published that examined the sensitivity of aquatic organisms to chloride exposure (e.g., EPA 2010; Gardner and Royer 2010; Elphick et al. 2011a; Gillis 2011; Soucek et al. 2011; Pandolfo et al. 2012). Test water concentrations of sulfate and total hardness were measured in nearly all of these studies, providing data that could have been used by Missouri to refine the acute and chronic criteria equations developed originally for Iowa. However, Missouri elected to adopt the criteria equations developed for Iowa without modification. In the absence of any report explaining and defending Missouri's decision not to apply the newer scientific studies, the EPA finds that the state's revised criteria for chloride are not scientifically defensible.

New Chloride Toxicity Data is Available

- New science since 2009 shows organisms found in MN are more sensitive to chloride than previously thought
  - Mayflies
  - Mussels
  - Hyalella (Scud)

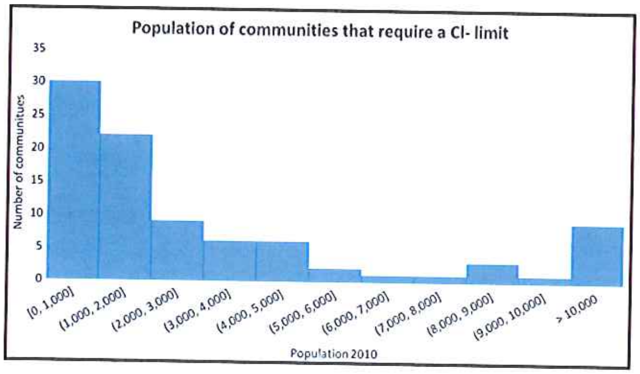
Update of Iowa approach is lower than 230 mg/L





Chloride Effluent Limit Needed

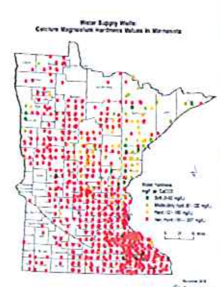
Amboy	New Prague
Appleton	New Richland
Arlington	Norwood Young America
Ashby	Olivia
Blue Earth	Prinsburg
Dawson	Renville
Delhi	Sacred Heart
Fairmont	Saint James
Jordan	Sleepy Eye
Kerkhoven	Springfield
Lafayette	Trimont
Le Center	Truman
Madelia	Wabasso
Madison	Waldorf
Marshall	Waseca
Maynard	Welcome
Montevideo	Wells-Easton-Minnesota Lake
Montgomery	Willmar
Morgan	Winnebago
Morris	Winthrop

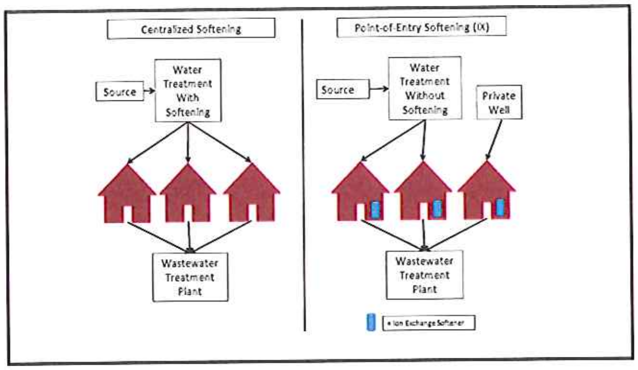


Muni chloride problem begins with source water hardness.

$$Hardness = \sum Ca^{2+} + Mg^{2+}$$

- Source water in MN typically has high hardness
  - >180 mg/L as $CaCO_3$ is very hard
  - >400 mg/L as $CaCO_3$ is common in MN

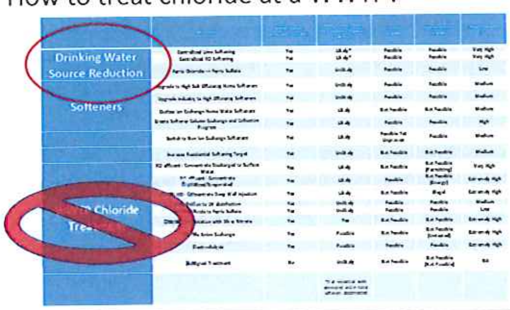


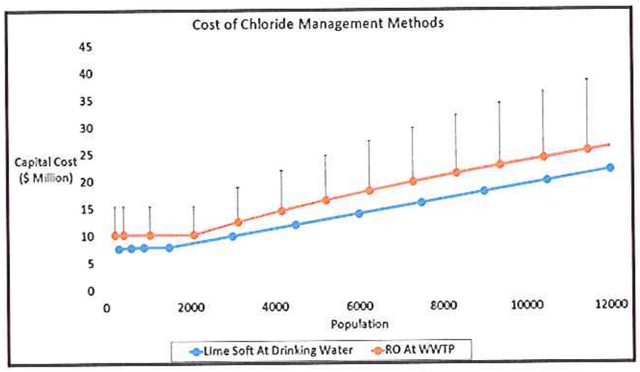


Chloride sources To WWTPs

Chloride Loading Categories	Alexandria, MN (2014) Concentration	Load	Morris, MN (2014) Concentration	Load	Madison, WI (2016) Concentration	Load
	mg/L	%	mg/L	%	mg/L	%
Source Water	75	11%	NA	NA	34	8%
Industrial/Commerial	121	17%	700	19%	77	18%
Residential (Non-IX)	~ 50	7%	~ 50	6%	34	8%
Residential (IX)	466	65%	788	81%	245	57%
Road Salt Infiltration	NA	NA	NA	NA	30	7%
Hauled Septage	NA	NA	NA	NA	9	2%
Average WWTP Effluent	712		830		430	

How to treat chloride at a WWTP?





Summary so far

- Over 100 municipal WWTPs will ultimately receive chloride limits
- Compliance with the chloride limits will be difficult and unaffordable
- MPCA has developed solutions to this difficult permitting problem

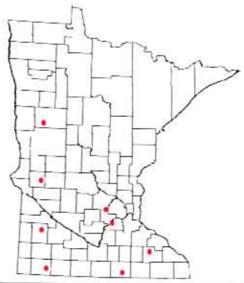
What should we do?

In September 2016, we met with Commissioner Stine to discuss this dilemma and all possible permitting options

- Commissioner Stine advised us to develop a chloride work group to:
  - Study the issue – they may have additional concerns
  - Select the permitting approach that is best for them

Chloride Working Group

Member	Representing
Rich Ashling	Albert Lea
Scott Gilbertson	Detroit Lakes
Scott Haas	Jordan
Bob VanMoer	Marshall
Blaine Hill	Morris
David Lane	Rochester
Doug Kammerer	Watertown
Steve Robinson	Worthington
Herman Dharmarajah	Bolton & Menk
Joe Bischoff	Wenck
Steve Weiss	MPCA
Nicole Blasing	MPCA
Ashley Wahl	MPCA
Scott Kyser	MPCA
Elise Doucette	MPCA
Cathy Rohshus	MPCA
Joel Peck	MPCA



Chloride Working Group Conclusions

1. Chloride effluents limits are legally unavoidable for MN cities
2. Chloride source reduction is the only chloride management strategy
3. Chloride source reduction is expensive and will cause widespread economic hardship for affected communities
4. Variances are the Best Permitting Route for cities facing chloride limits
5. The MPCA should develop a streamlined variance permitting process

What is a variance?

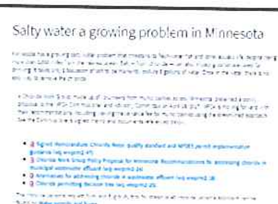
A temporary modification of a water quality standard based on **substantial** and **widespread** economic hardship

Individual Variance Process	Statewide Streamlined Variance Process
• Self-Funded Engineering Alternative Analysis	• MPCA Funded Engineering Alternative Analysis
• Consultants cost $50-150k	• No consultant costs*
• You Must communicate individual solutions to MPCA	• Less individual communication • EPA Pre-Approval
• No Variance Eligibility Calculator	• Variance Eligibility Calculator
• Variance Fee ($10,850)	• No Variance Fee
• Local Hearing Required	• Local Hearing Required

*Hopefully, at least minimized!

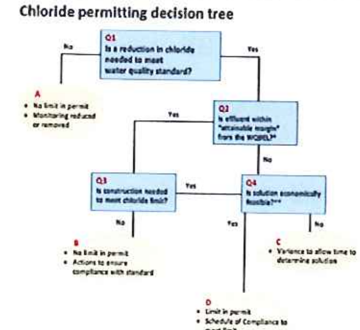
Questions

What can we do for you?



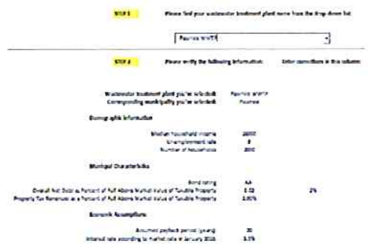
Google: MPCA Salt Water Problem

Chloride permitting decision tree



MPCA Economist designed the streamlined variance tool in Spring of 2016

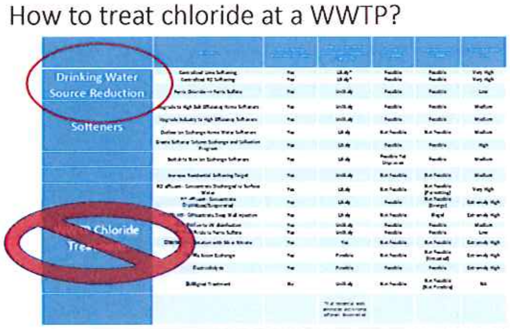
- 12 Pre-populated demographic data points already incorporated into tool for each city (data from census, MDH, MN Auditor, etc…)
- Only 3 data fields require entry from applicant



Streamlined variance approach

- Existing variance process requires involvement of consulting engineers, which adds soft costs.
- The streamlined variance tool uses data already available to justify a variance, eliminating the up-front need for consulting engineers.
- Streamlined Variance process still requires individual review by EPA, but standardizes the format.
- All this reduces the work, so no $10,850 fee.

How to treat chloride at a WWTP?



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Hauled Septage	NA	NA	NA	NA	9	2%
Average WWTP Effluent	712		830		430	

		RP at WWTP		
	Source	IX	Lime*	RO*
Chloride	No	Yes	No	No
TDS	Yes	Yes	No	Yes
Spec Cond	Yes	Yes	No	Yes
Hardness	Yes	Yes	No	Yes
Alkalinity	Yes	Yes	No	Yes

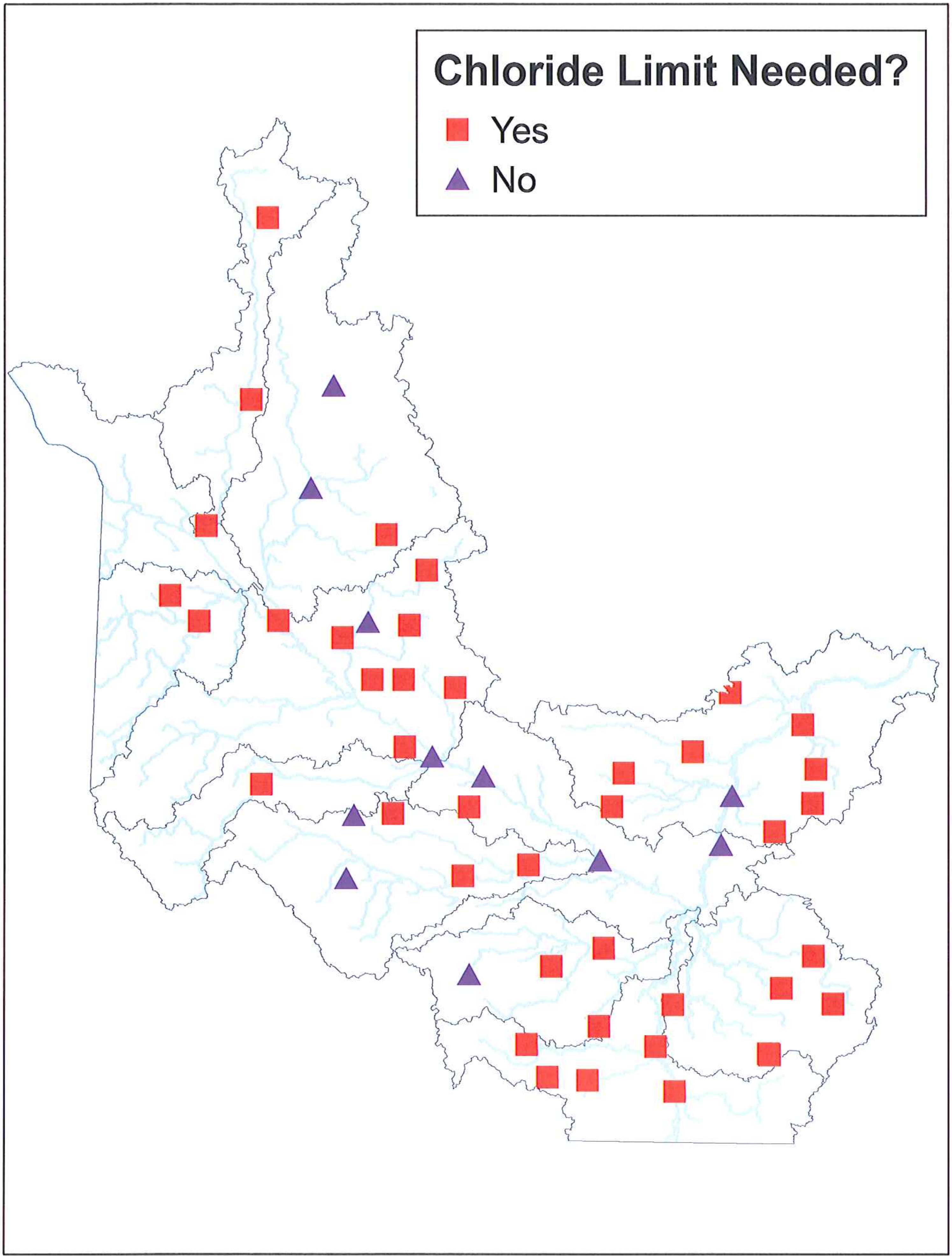
*Removing All IX Softeners

Upgrading to high efficiency softeners

- Pros
  - Maintains status quo
- Cons
  - ***Chloride limit compliance WWTP unlikely***
    - O&M schedules
    - Replacement schedules
  - Political will
    - Finance IX replacement
    - Verify IX replacement

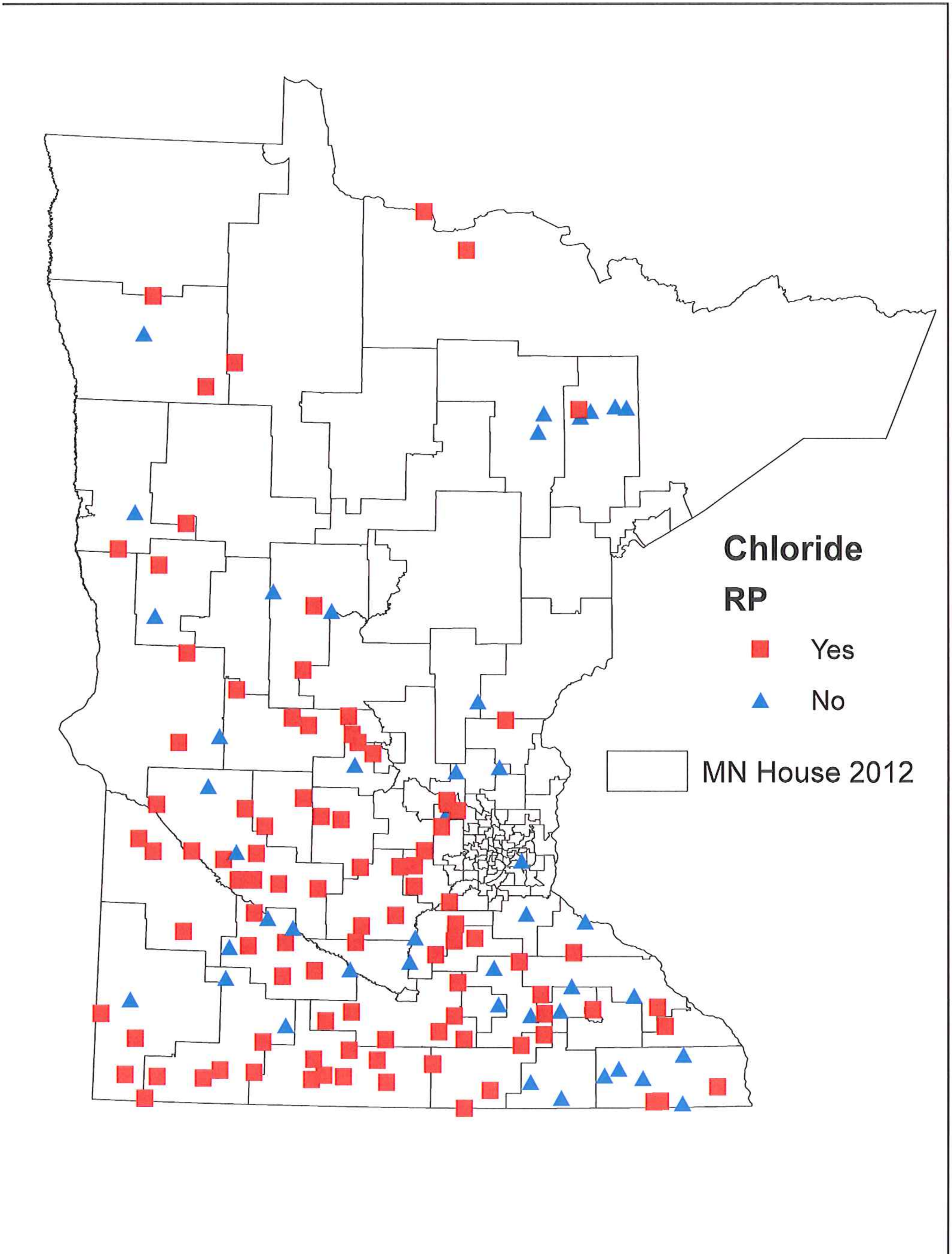
RESULTS/CONCLUSIONS

On average, 0.255 KGD chloride per house was contributed by home water softeners to wastewater in the monitored sewersheds. The amount ranged from 0.01 to 1.06 KGD per household and is comparable to other estimates in south central Wisconsin. By optimizing or replacing softeners, 27% and 47% reductions, respectively, in chlorides were realized. The cost of implementing these upgrades is estimated to be $2.614 per kilogram chloride reduced for optimization and $11.509 per 1 kilogram chloride reduced by replacement ($1.188 per pound chloride reduced for optimization and $5.231 per pound reduced by replacement)


Chloride Limit Needed?
Yes
No

MN River Basin Chloride Data

Facility	Daily Max Limit (mg/L)	Monthly Average Limit (mg/L)
Amboy	362	230
Appleton	568	504
Arlington	926	528
Ashby	306	230
Blue Earth	699	393
Dawson	348	230
Delhi	299	230
Fairmont	316	231
Jordan	265	230
Kerkhoven	271	230
Lafayette	311	230
Le Center	271	230
Madelia	1189	898
Madison	298	230
Marshall	266	230
Maynard	845	535
Montevideo	530	444
Montgomery	344	230
Morgan	339	230
Morris	585	323
New Prague	278	230
New Richland	347	230
Norwood Young America	266	230
Olivia	388	308
Prinsburg	1069	404
Renville	332	230
Sacred Heart	317	230
Saint James	372	267
Sleepy Eye	314	230
Springfield	546	436
Trimont	377	230
Truman	336	230
Wabasso	317	230
Waldorf	345	230
Waseca	292	234
Welcome	310	230
Wells-Easton-Minnesota Lake	285	230
Willmar	273	231
Winnebago	1720	
Winthrop	300	230


Chloride
RP
Yes
No
MN House 2012

Statewide Chloride Limit Status

Name	MNID	Need Cl- limit?
Adams WWTP	MN0021261SD003	No
Adrian WWTP	MNG580001SD001	Yes
Albert Lea WWTP	MN0041092SD001	Yes
Albertville WWTP	MN0050954SD002	Yes
Alexandria Lake Area Sanitary District	MN0040738SD001	Yes
Altura WWTP	MN0021831SD001	Yes
Amboy WWTP	MN0022624SD002	Yes
Appleton WWTP	MN0021890SD001	Yes
Arlington WWTP	MN0020834SD002	Yes
Ashby WWTP	MNG580087SD001	Yes
Aurora WWTP	MN0020494SD004	No
Austin WWTP	MN0022683SD002	No
Avon WWTP	MN0047325SD002	Yes
Bel Clare Estates WWTP	MN0045721SD001	Yes
Benson WWTP	MN0020036SD001	No
Blooming Prairie WWTP	MN0021822SD002	Yes
Blue Earth WWTP	MN0020532SD001	Yes
Braham WWTP	MN0022870SD001	Yes
Brewster WWTP	MN0021750SD001	Yes
Brownton WWTP	MN0022951SD001	Yes
Caledonia WWTP	MN0020231SD003	Yes
Canton WWTP	MN0023001SD002	Yes
Central Iron Range Sanitary Sewer District WWTP	MN0020117SD003	No
Chisago Lakes Joint STC	MN0055808SD001	Yes
Clara City WWTP	MN0023035SD001	No
Claremont WWTP	MN0022187SD002	No
Cold Spring WWTP	MN0023094SD001	No
Dawson WWTP	MN0021881SD002	Yes
Delhi WWTP	MN0067008SD001	Yes
Detroit Lakes WWTP	MN0020192SD002	Yes
Dodge Center WWTP	MN0021016SD002	Yes
Edgerton WWTP	MNG580011SD002	Yes
Ellsworth WWTP	MNG580015SD002	Yes
Emmons WWTP	MN0023311SD002	Yes
Eveleth WWTP	MN0023337SD005	No
Fairmont WWTP	MN0030112SD001	Yes
Faribault WWTP	MN0030121SD003	No
Fergus Falls WWTP	MN0050628SD001	No
Fosston WWTP	MN0022128SD001	Yes
Franklin WWTP	MN0021083SD003	No
Garfield WWTP	MN0023515SD002	No
Gilbert WWTP	MN0020125SD002	Yes
Gonvick WWTP	MN0020541SD001	Yes
Goodhue WWTP	MN0020958SD001	Yes

Green Lake SSWD WWTP	MN0052752SD002	Yes
Grove City WWTP	MN0023574SD002	Yes
Harmony WWTP	MN0022322SD003	Yes
Hayfield WWTP	MN0023612SD002	Yes
Hector WWTP	MN0025445SD004	Yes
Hibbing WWTP South Plant	MN0030643SD001	No
Holdingford WWTP	MN0023710SD002	Yes
Holland WWTP	MN0021270SD001	Yes
Hoyt Lakes WWTP	MN0020206SD002	No
Hutchinson WWTP	MN0055832SD001	Yes
Isanti Estates LLC	MN0054518SD001	No
ISD 363 - Indus School	MN0049263SD001	Yes
Jordan WWTP	MN0020869SD001	Yes
Kasson WWTP	MN0050725SD001	No
Kerkhoven WWTP	MN0020583SD001	Yes
Lafayette WWTP	MN0023876SD001	Yes
Lakefield WWTP	MN0020427SD002	Yes
Le Center WWTP	MN0023931SD009	Yes
Lester Prairie WWTP	MN0023957SD002	Yes
Lewiston WWTP	MN0023965SD001	No
Litchfield WWTP	MN0023973SD001	Yes
Little Falls WWTP	MN0020761SD004	No
Littlefork WWTP	MNG580081SD001	Yes
Long Prairie WWTP - Municipal	MN0066079SD001	Yes
Lonsdale WWTP	MN0031241SD003	Yes
Lucan WWTP	MNG580112SD001	Yes
Luverne WWTP	MN0020141SD002	No
Mabel WWTP	MN0020877SD002	No
Madelia WWTP	MN0024040SD003	Yes
Madison WWTP	MN0051764SD002	Yes
Marshall WWTP	MN0022179SD001	Yes
Mayer WWTP	MN0021202SD001	Yes
Maynard WWTP	MN0056588SD001	Yes
Meadows of Whisper Creek WWTP	MN0066753SD001	Yes
Melrose WWTP	MN0020290SD002	Yes
Met Council Metropolitan WWTP	MN0029815SD001	No
Montevideo WWTP	MN0020133SD003	Yes
Montgomery WWTP	MN0024210SD003	Yes
Morgan WWTP	MN0020443SD003	Yes
Morris WWTP	MN0021318SD003	Yes
Motley WWTP	MN0024244SD001	No
Mountain Lake WWTP	MNG580035SD001	No
MRVPUC WWTP	MN0068195SD002	No
Nerstrand WWTP	MN0065668SD001	Yes
New Prague WWTP	MN0020150SD001	Yes
New Richland WWTP	MN0021032SD002	Yes
New Ulm WWTP	MN0030066SD002	No

Norwood Young America WWTP	MN0024392SD002	Yes
Ogilvie WWTP	MN0021997SD001	No
Olivia WWTP	MN0020907SD002	Yes
Order of St Benedict WWTP	MN0022411SD001	Yes
Otsego WWTP West	MN0066257SD001	Yes
Owatonna WWTP	MN0051284SD001	No
Pelican Rapids WWTP	MN0022225SD002	Yes
Pine Island WWTP	MN0024511SD002	No
Pipestone WWTP	MN0054801SD001	Yes
Plainview Elgin Sanitary District	MN0055361SD002	Yes
Preston WWTP	MN0020745SD002	No
Prinsburg WWTP	MN0063932SD001	Yes
Red Wing WWTP	MN0024571SD006	No
Redwood Falls WWTP	MN0020401SD002	No
Renville WWTP	MN0020737SD002	Yes
Rochester WWTP/Water Reclamation Plant	MN0024619SD001	Yes
Rogers WWTP	MN0029629SD001	Yes
Rushford WWTP	MN0024678SD001	No
Sacred Heart WWTP	MN0024708SD002	Yes
Saint Francis WWTP	MN0021407SD002	Yes
Saint James WWTP	MN0024759SD002	Yes
Saint Michael WWTP	MN0020222SD001	No
Saint Peter WWTP	MN0022535SD004	No
Sauk Centre WWTP	MN0024821SD001	No
Sherburn WWTP	MN0024872SD002	Yes
Sleepy Eye WWTP	MNG580041SD002	Yes
Spring Valley WWTP	MN0051934SD002	No
Springfield WWTP	MN0024953SD003	Yes
Staples WWTP	MN0024988SD005	Yes
Starbuck WWTP	MN0021415SD003	No
Thief River Falls WWTP	MN0021431SD004	Yes
Trimont WWTP	MN0022071SD002	Yes
Truman WWTP	MN0021652SD001	Yes
Vergas WWTP	MN0025097SD002	Yes
Virginia WWTP	MN0030163SD002	Yes
Wabasso WWTP	MN0025151SD002	Yes
Wadena WWTP	MN0020672SD002	No
Waldorf WWTP	MN0021849SD003	Yes
Walnut Grove WWTP	MN0021776SD002	No
Waseca WWTP	MN0020796SD003	Yes
Watertown WWTP	MN0020940SD001	Yes
Waterville WWTP	MN0025208SD003	Yes
Welcome WWTP	MN0021296SD003	Yes
Wells Public Utilities	MN0025224SD004	Yes
Wells Public Utilities	MN0025224SD005	Yes
West Concord WWTP	MN0025241SD001	Yes
Western Lake Superior Sanitary District	MN0049786SD001	No

Willmar WWTF	MN0025259SD005	Yes
Windom WWTP	MN0022217SD002	Yes
Winnebago WWTP	MN0025267SD002	Yes
Winsted WWTP	MN0021571SD002	Yes
Winthrop WWTP	MN0051098SD001	Yes
Worthington WWTP	MN0031186SD001	Yes
Wykoff WWTP	MN0020826SD002	No
Zimmerman WWTP	MN0042331SD002	No