Clean Water Fund
Impaired Waters De-Listing

MINNESOTA
CLEAN WATER COUNCIL

Paul Gardner, Administrator

651-757-2384

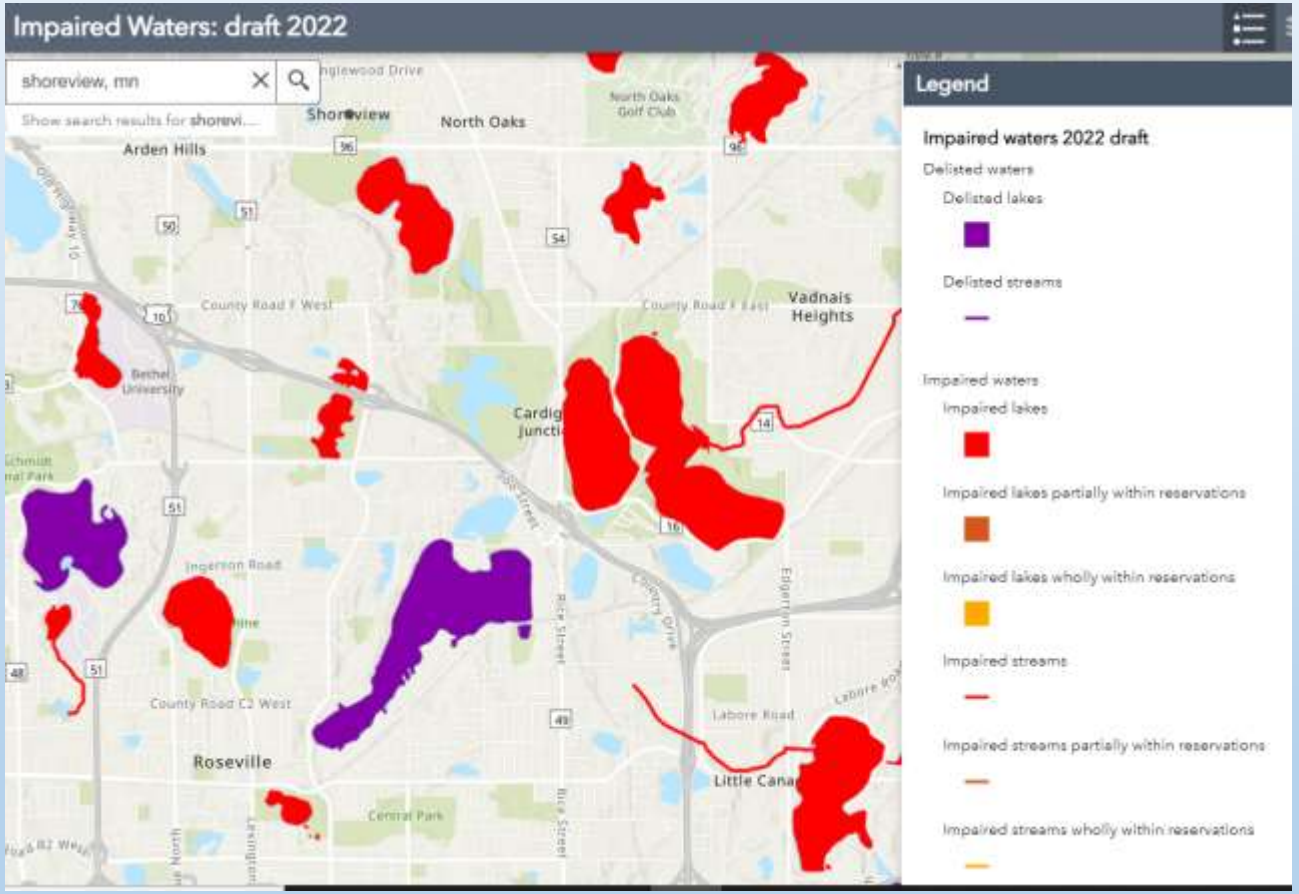
Paul.Gardner@state.mn.us

23 March 2022 House Legacy Finance Committee

CLEAN WATER LAND & LEGACY AMENDMENT

Impaired Waters

- Biennial list for U.S. EPA for waters that do not meet water quality standards
- MN impairments cover 30+ different standards
- We test in more places for more things than other states
- “De-listing” is a “lagging indicator” of success
- Overall impairments leveling off



How Do We Remove or Avoid Impairments?

- Test it & find source of problem (Monitoring, assessment & characterization)
- Make a plan to fix it (Watershed Restoration & Protection Strategies-WRAPS; One Watershed One Plan)
- Train people how to fix it or persuade landowners to act (Technical assistance)
- Set aside land where feasible (Protection strategies)
- “Restore” when necessary (Restoration and mitigation strategies)
- Measure
- “Local leadership & state funding”

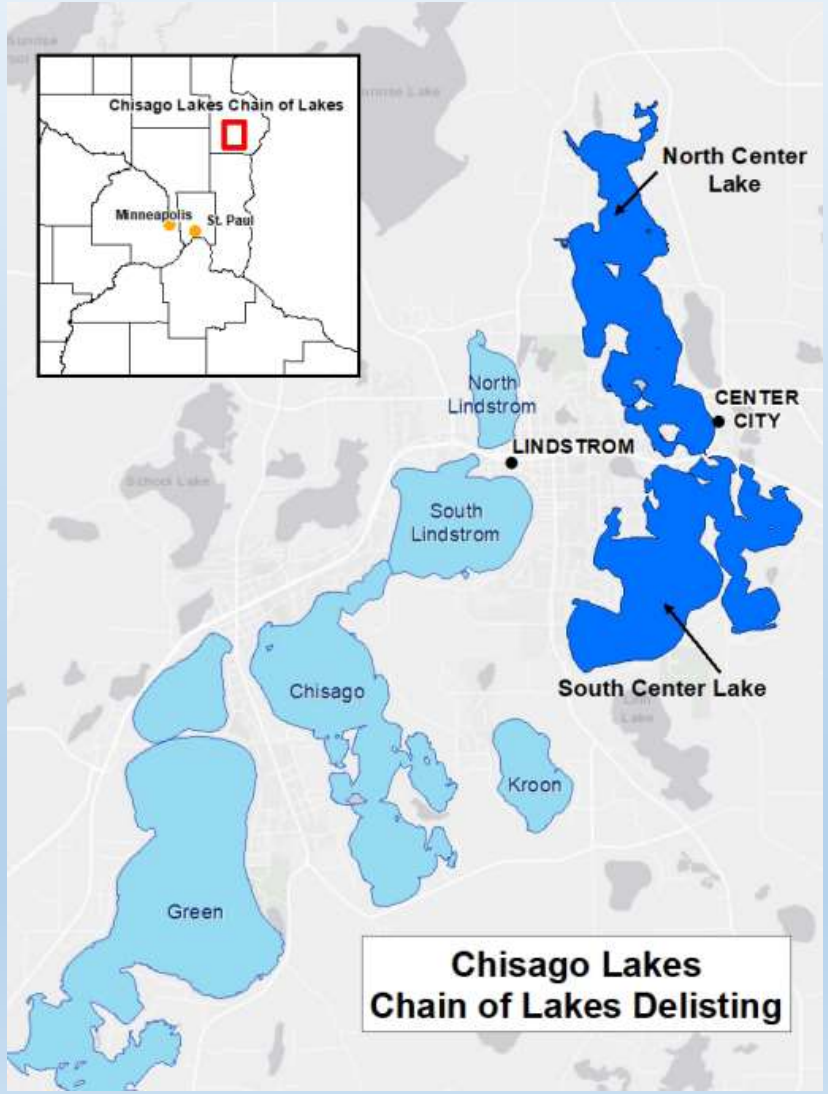
DO THESE PROJECTS → **BY YEAR** → **AND YOU GET THESE REDUCTIONS** → **AND IT WILL COST**

Drainage	Treatment Group Type & Number of BMPs	Cost	Issue	Unit	Existing Conditions	Quantitative Measurable Goal				PTMApp Scenario Reduction	5 year Load Reduction Goal	10 year Load Reduction Goal	10 yr. Progress towards Measurable Goal (%)
						Metric	Amount (%)*	Target Load Reduction	Year				
Drainage to Mississippi River	Storage (244) Filtration (78) Infiltration (3) Source Reduction (812)	$6,437,605	Sediment	tons/ yr	116,416	Annual Load (mass/yr.)	45	52,387	2025	14,488	7,244	14,488	28
			Nutrients: Total Nitrogen	lbs/yr	10,848	Annual Load (mass/yr.)	45	4,882	2040	112	56	112	2
			Nutrients: Total Phosphorus	lbs/yr	134	Annual Load (mass/yr.)	45	60	2025	12	6	12	20
			Excess Runoff: 2 Year	acre feet	71,177	2-Yr. Runoff Volume	25	17,794	2030	N/A	N/A	N/A	N/A
			Excess Runoff: 10 Year	acre feet	167,868	2-Yr. Runoff Volume	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Drainage to Upper Iowa River	Storage (44) Filtration (15) Source Reduction (268)	$1,410,038	Sediment	tons/ yr	112,249	Annual Load (mass/yr.)	45	50,512	2025	27,776	13,888	27,776	55
			Nutrients: Total Nitrogen	lbs/yr	32,828	Annual Load (mass/yr.)	45	14,773	2040	3,285	1,642	3,285	22
			Nutrients: Total Phosphorus	lbs/yr	2,024	Annual Load (mass/yr.)	45	911	2025	360	180	360	40
			Excess Runoff: 2 Year	acre feet	7,781	2-Yr. Runoff Volume	25	1,945	2030	N/A	N/A	N/A	N/A
			Excess Runoff: 10 Year	acre feet	17,036	2-Yr. Runoff Volume	N/A	N/A	N/A	N/A	N/A	N/A	N/A

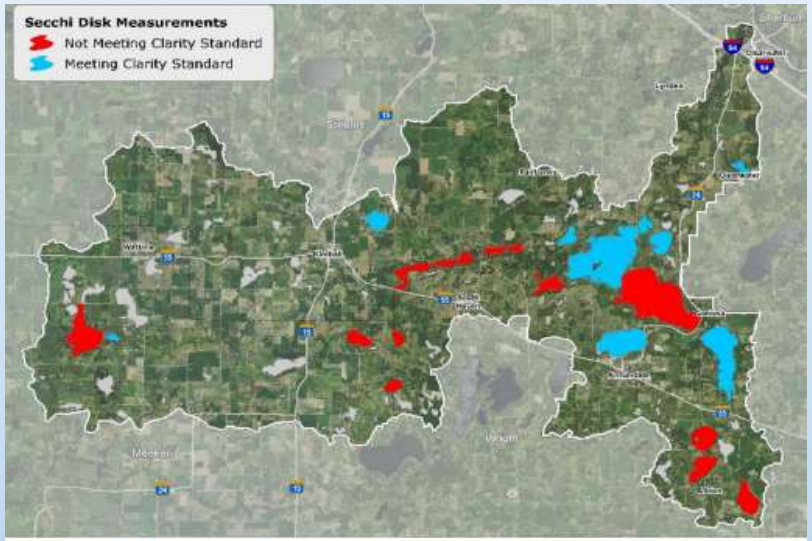
Excerpt from Root River "One Watershed One Plan"

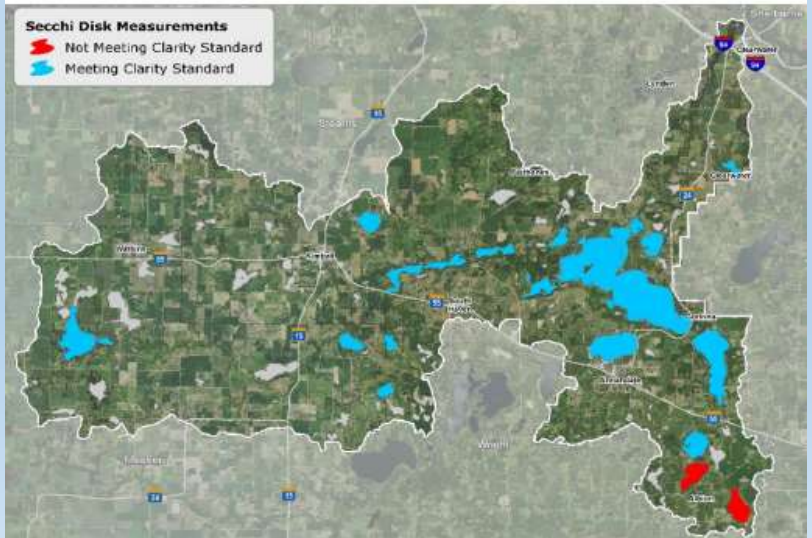
Chisago Lakes

- Five years of CWF grants
- Leadership by Chisago SWCD
- Federal & local matching funds
- Hundreds of practices
  - Projects with 43 landowners
  - Lakeshore restoration
  - Rain gardens in town
  - Cover crops
  - “Moving dirt”
- Two lakes de-listed for phosphorus



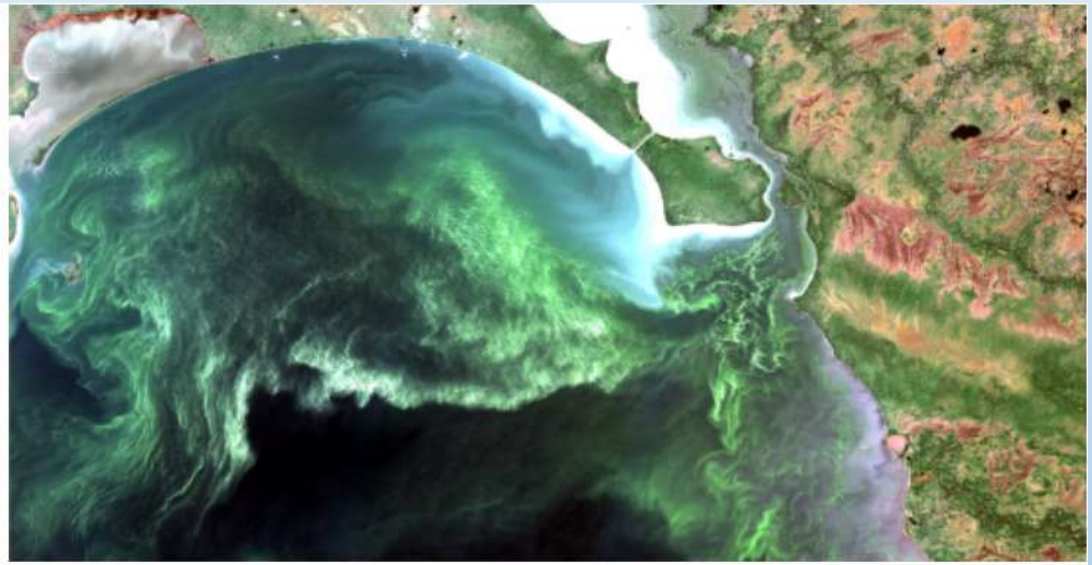
Clearwater River Watershed District (Meeker, Stearns, Wright Counties)





- Lake Augusta, Union Lake de-listed for phosphorus
- Rural conservation
  - Row crops to pasture
  - More precise fertilizer application
  - Pre-treatment basin
  - Limestone filter
- Urban stormwater improvement
  - Infiltration basin, wetland restoration, other BMPs in Kimball
- Matching federal funds
- Multiple CWF grants from BWSR

Innovating with Regulation



A satellite image shows algae growth in Lake Winnipeg, fueled in part by phosphorus carried in by the Red River.

- WWTPs require a permit
- Other phosphorus sources are unregulated
- 5 Red River Basin WWTPs have flexibility to pay landowners to reduce phosphorus upstream
- CWF-funded monitoring, planning, and expertise will help save money, get quicker results

Thank you!