Clean Water Council
Budget and Outcomes Committee (BOC) Meeting Agenda
Friday April 1, 2022 9:30 a.m. to 12:30 p.m.
BY WEBEX ONLY

2020 BOC Members: Steve Besser (BOC Vice-Chair), Dick Brainerd, Gary Burdorf, Frank Jewell, Jen Kader, Holly Kovarik (BOC Chair), Warren Formo, Todd Renville

9:30 Regular Business

- Introductions
- Approve agenda & most recent minutes
- Chair and Staff update
    - Supplemental CWF Appropriation Proposal at Legislature
- Potential for meeting in person in May

9:45 Review of Agency and University Proposals Covered at March 21 Council Meeting

Monitoring and Assessment [INSERT BREAK AS NEEDED]

- Drinking Water Contaminants of Emerging Concern, MDH
- Red River Watch (Red River Watershed Board)
- Aquifer Monitoring for Water Supply Planning, DNR
- Fish Contaminant Assessment, DNR
- Lake Biology Integrity Assessment, DNR
- Buffer Map Maintenance, DNR
- Stream Flow and Sediment Monitoring, DNR
- River and Lake Monitoring and Assessment, MPCA
- Groundwater Monitoring and Assessment, MPCA
- Monitoring for Pesticides in Surface Water and Groundwater, MDA
- Pesticide Testing of Private Wells, MDA

Watershed & Groundwater Restoration/Protection Strategies:

- Watershed Restoration and Protection Strategies (WRAPS) and TMDL development, MPCA
- Watershed Restoration and Protection Strategies (WRAPS), DNR
- Groundwater Restoration and Protection Strategies (GRAPS), MDH
- Source Water Protection, MDH

Comprehensive Local Watershed Management: BWSR Lead

- Water Management Transition (One Watershed, One Plan), BWSR

Next BOC Meeting Date: Friday, May 6

International Water Institute

International Water Institute

International Water Institute

Our mission*: To foster watershed stewardship through leadership in decision support, environmental monitoring, and educational programming.*

Objectives of Watershed Education:

The International Water Institute utilizes a cross-curricular approach to watershed science in order to:

CHALLENGE participants to collect and think critically about scientific data

CREATE a sense of responsibility and stewardship for local waterways

CONNECT students to their local rivers through experiential learning opportunities

CULTIVATE interest and appreciation for watershed science careers and opportunities

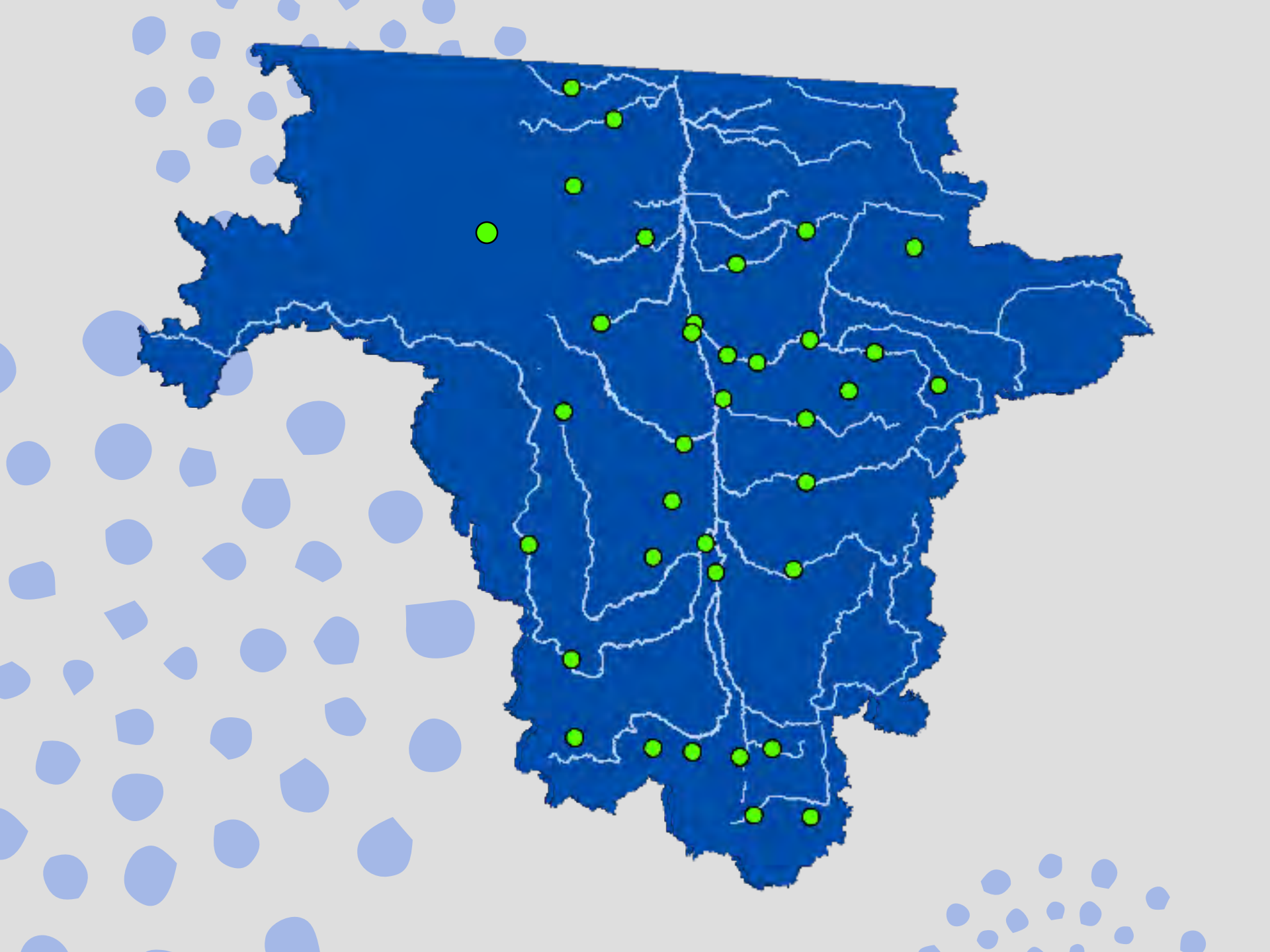
2020-21 Program Accomplishments

- **River of Dreams**
  - Virtual presentations and in-person canoe launches with 1,561 students
- **Annual River Watch Forum**
  - Three-week virtual Forum with 20 schools participating
- **River Explorers & ArcGIS Mapping**
  - 115 students paddling on 27 miles of MN streams and rivers
- **Water Quality Monitoring**
  - Virtual activities and in-person sampling
- **Macroinvertebrate Monitoring**
  - Virtual activities and in-person sampling

River of Dreams

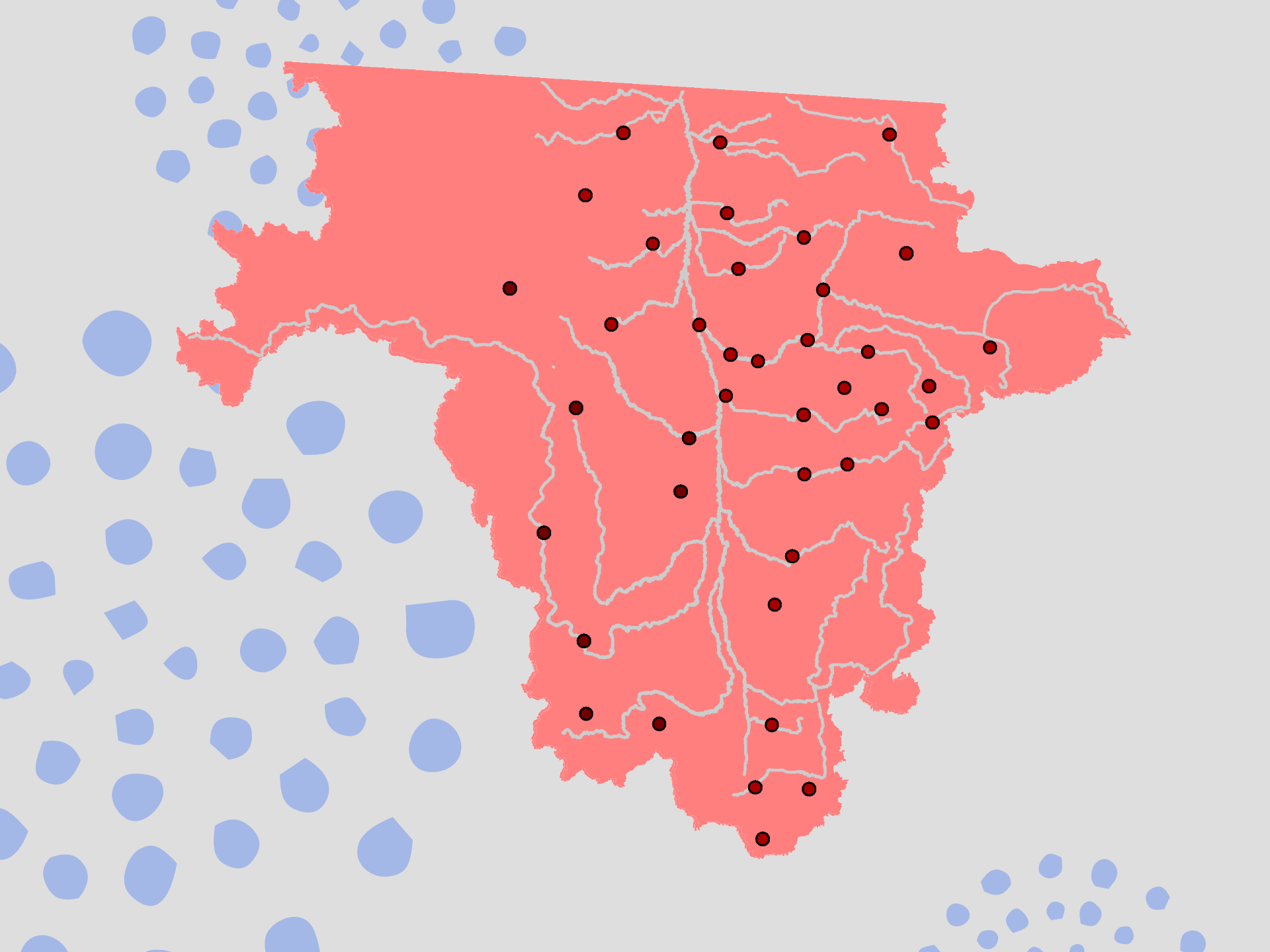
Program Components:

- Read *“Paddle-to-the-Sea”*
- Classroom Visit
  - Watershed Vocabulary, Mapping, and Virtual Tour
  - Canoe Design
  - Story Composition – dream for canoe’s journey
- Canoe Display
- River of Dreams Database
- Canoe Launch Event



River Watch

- Program Components:
  - Water Quality Monitoring
    - *River.watch*
  - Biological Monitoring
  - River Explorers
    - *Story Map Creation*
  - River Watch Forum
    - *Annual Project Challenge*



Participating Minnesota Schools:

- Red Lake County Central
- WinEMac
- Red Lake Falls
- Clearbrook-Gonvick
- Grygla
- Thief River Falls
- East Grand Forks
- Red Lake
- Kittson County Central
- Lancaster
- Marshall County Cental
- Warren-Alv-Olso
- Stephen-Argyle Central
- Crookston
- Fisher
- EGF Sacred Heart
- TRF St. Bernard's
- Fertile-Beltrami
- Climax-Shelly
- Hawley
- Norman County East
- Detroit Lakes
- Barnesville
- Mahnomen
- Herman-Norcross
- Campbell-Tintah

2022-24 Desired Outcomes

- **River of Dreams**
  - Engage elementary students in a hands-on education program that incorporates a number of core education topics including math, science and geography.
- **River Watch**
  - Increase awareness and knowledge of local land use and watershed connections through water quality monitoring, biological monitoring, watershed exploration and STEM activities.
- **Stem Assistance**
  - Assist in provision of Science, Technology, Engineering and Math (STEM) education and engagement opportunities through watershed science.

Imagine an entire generation of students who *understand* and *appreciate* their local river and watershed...

River of Dreams and River Watch are:

- Educational (aligns with educational standards)
- Transferable to any watershed
- Fun for all ages!



Monitoring, Assessment and Charaterization

Joint Presentation to the Clean Water Council

DNR, MDA, MDH, MPCA,

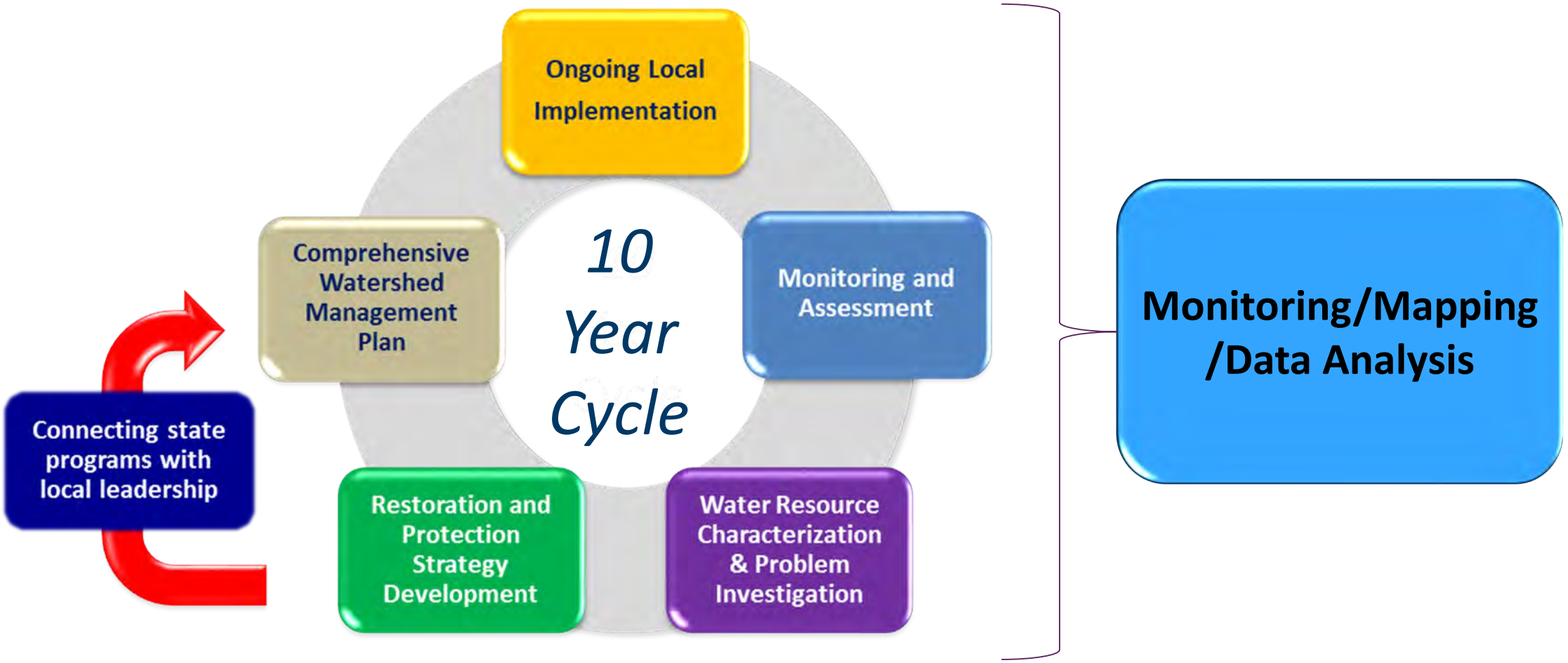
MINNESOTA

CLEAN WATER LAND & LEGACY AMENDMENT

Programs

- Aquifer Monitoring
- Fish Contaminant Assessment
- Lake Biology Integrity Assessment
- Buffer Map Maintenance
- Stream Flow Monitoring
- River and Lake Monitoring and Assessment
- Groundwater Monitoring and Assessment
- Pesticide Monitoring in Surface Water and Groundwater
- Nitrate and Pesticide Testing in Private Wells
- Drinking Water Contaminants of Emerging Concern

Supporting All of the Watershed Management Steps

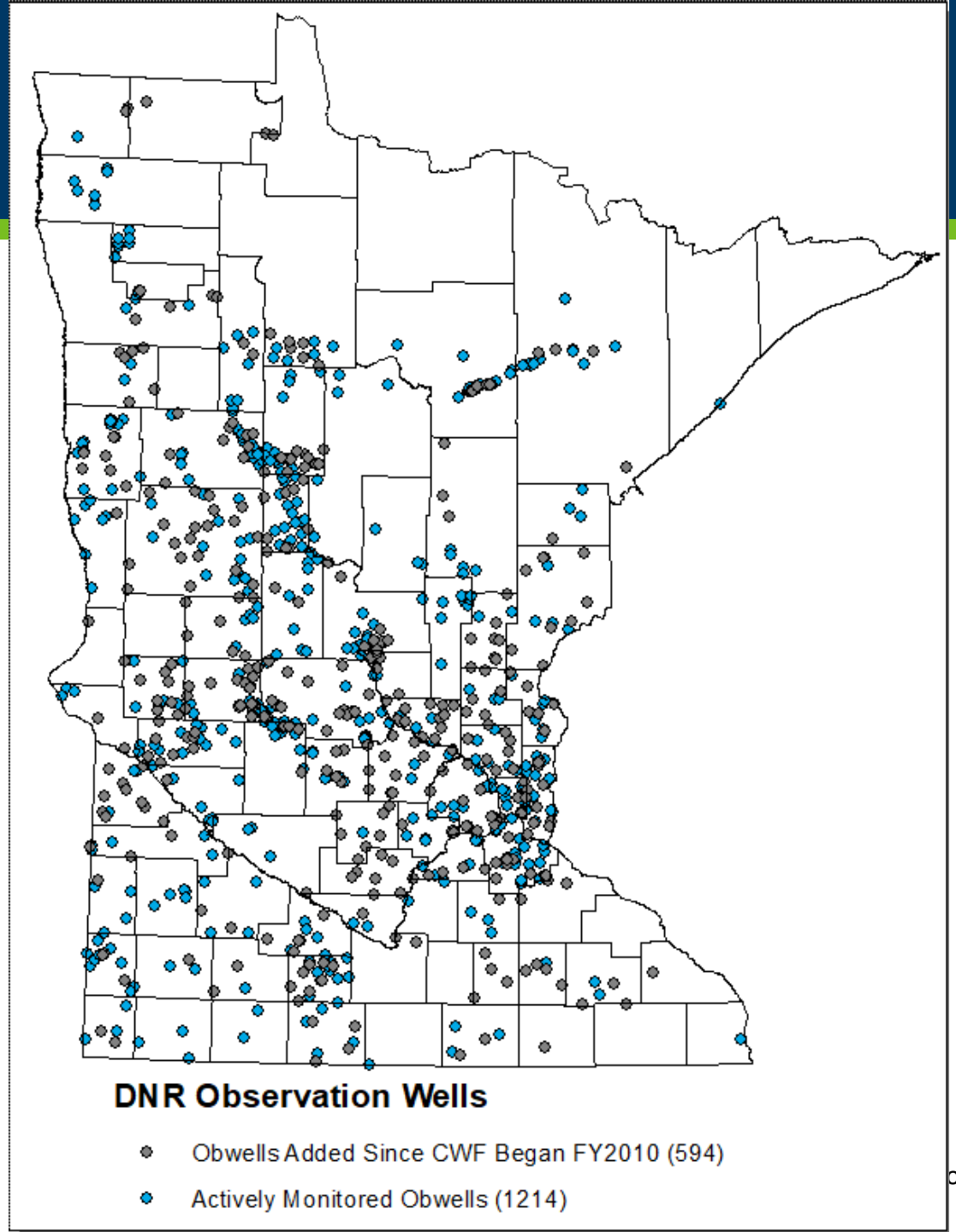


Aquifer Monitoring for Water Supply Planning

Jason Moeckel | Manager, Inventory, Monitoring and Analysis Section

Minnesota Department of Natural Resources

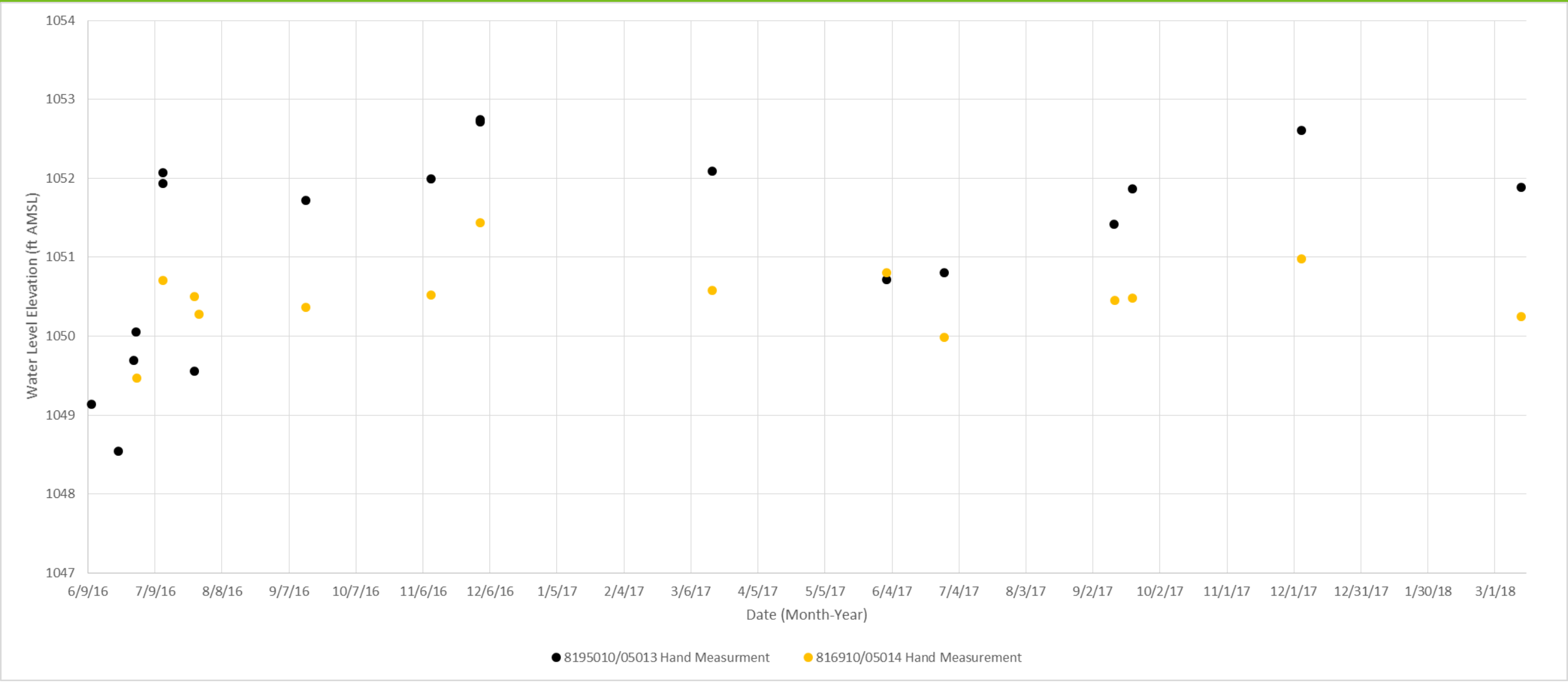
Water Level Network



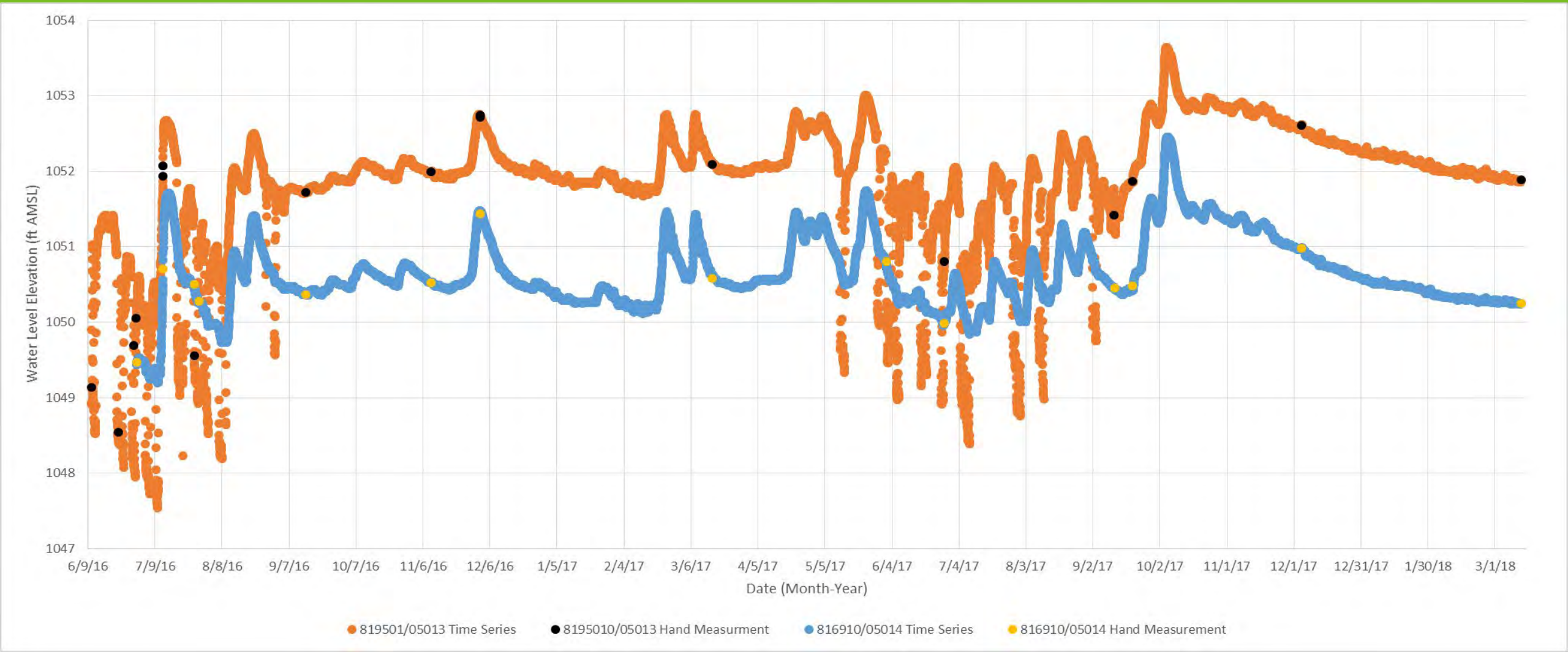
- Network with 1214 wells
- 806 now have continuous monitoring

Aquifer Monitoring for Water Supply Planning

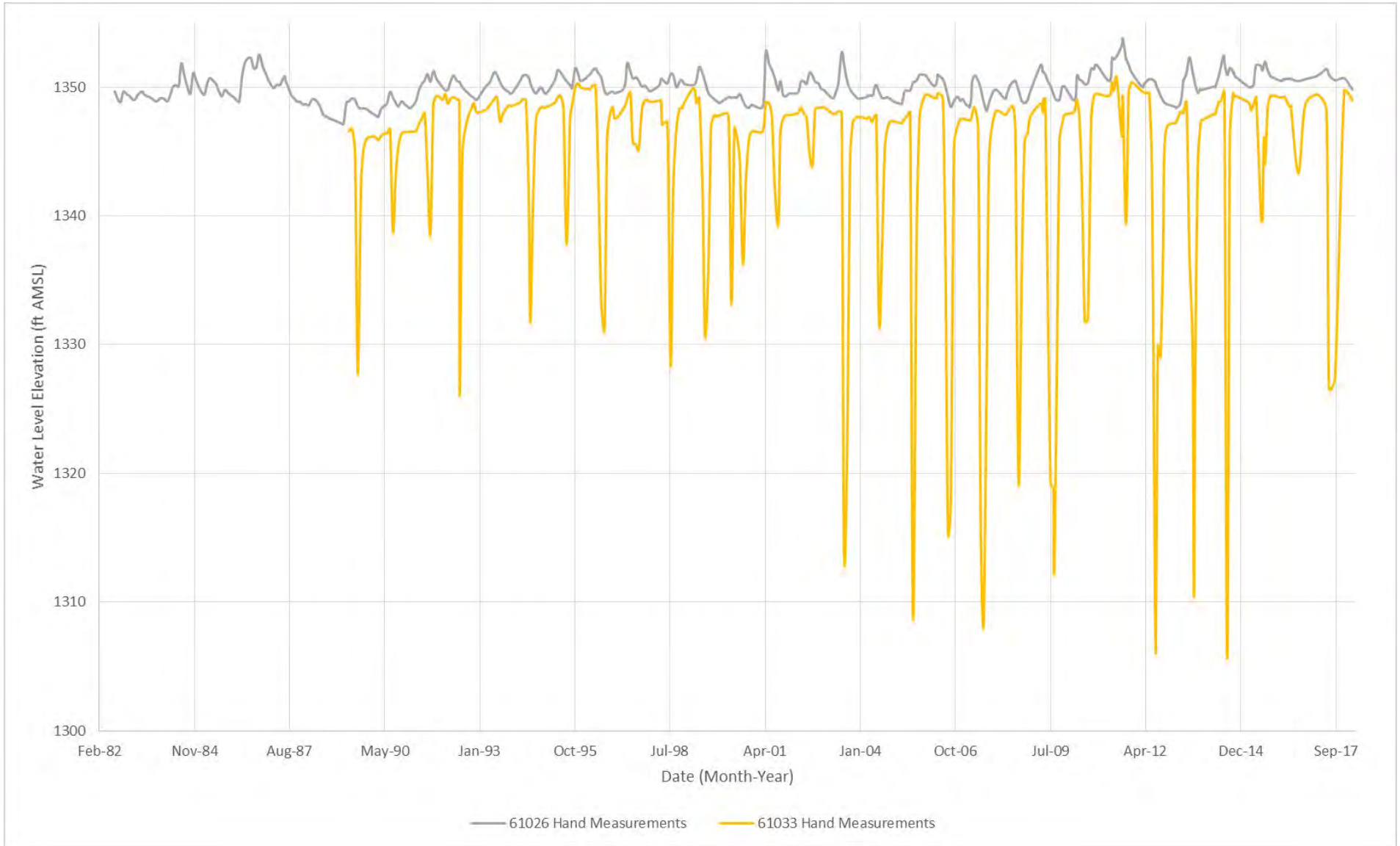
15th Ave Nest Near Rice
QBAA 5013 (133 ft) and QWTA 5014 (39ft)



15th Ave Near Rice - 5013 (133 ft Buried Aquifer) and 5014 (39 ft Water Table)



Monitoring Wells in Bonanza Valley near Glenwood

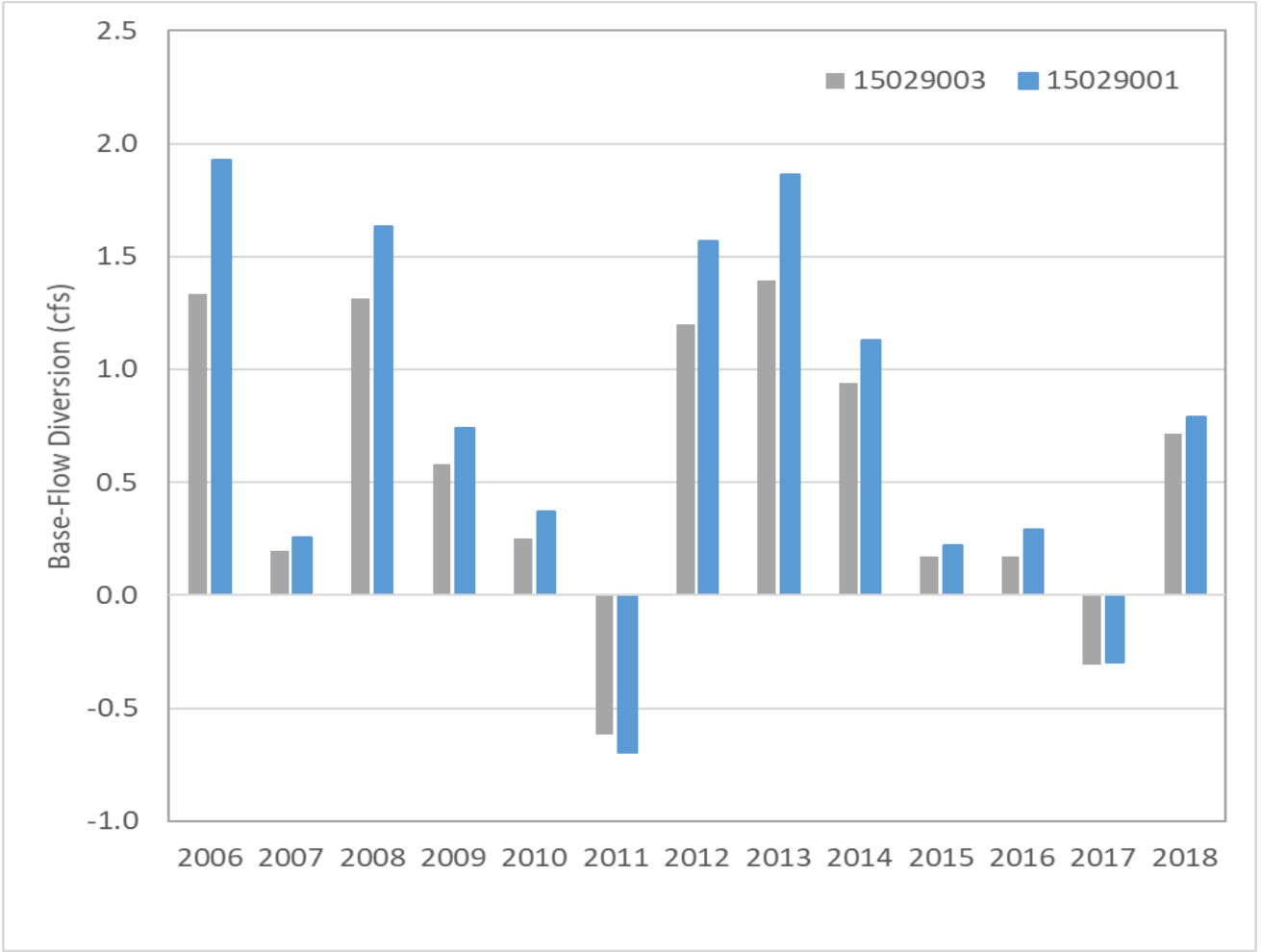


Water Supply Planning Outcomes in FY21

- Installed 14 groundwater level monitoring wells in five counties
- Finalized the Little Rock Creek hydrologic analysis report
- Added 228 aquifer tests to the aquifer properties database
- Reviewed 16 groundwater based community water supply plans
- Organized data for Bonanza Valley Groundwater Modeling Analysis
- Completed four GRAPS reports, and 87 hydrograph comparisons
- Modeling analysis for White Bear Lake

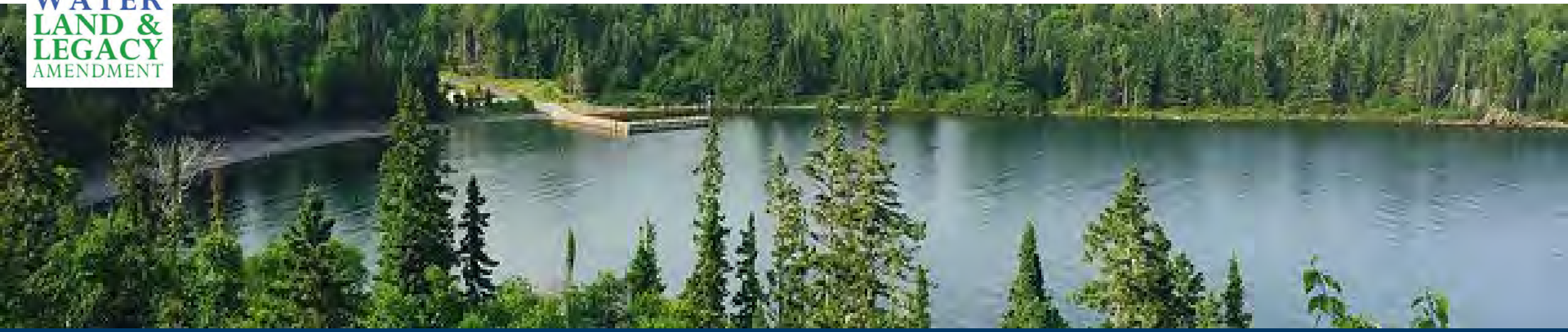
Groundwater Modeling

- Little Rock Creek Transient GW Model
- Used to determine the sustainable diversion
- Avoid adverse impacts



Aquifer Monitoring for Water Supply Planning

	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23
Clean Water Funds	$1.1M	$3M	$2.75M	$2.75M	$2.75M	$4.15M	$3.7M
FTEs (state agency staff funded by CWF)	3	9	12	11.3	11.5	11.4	12.5



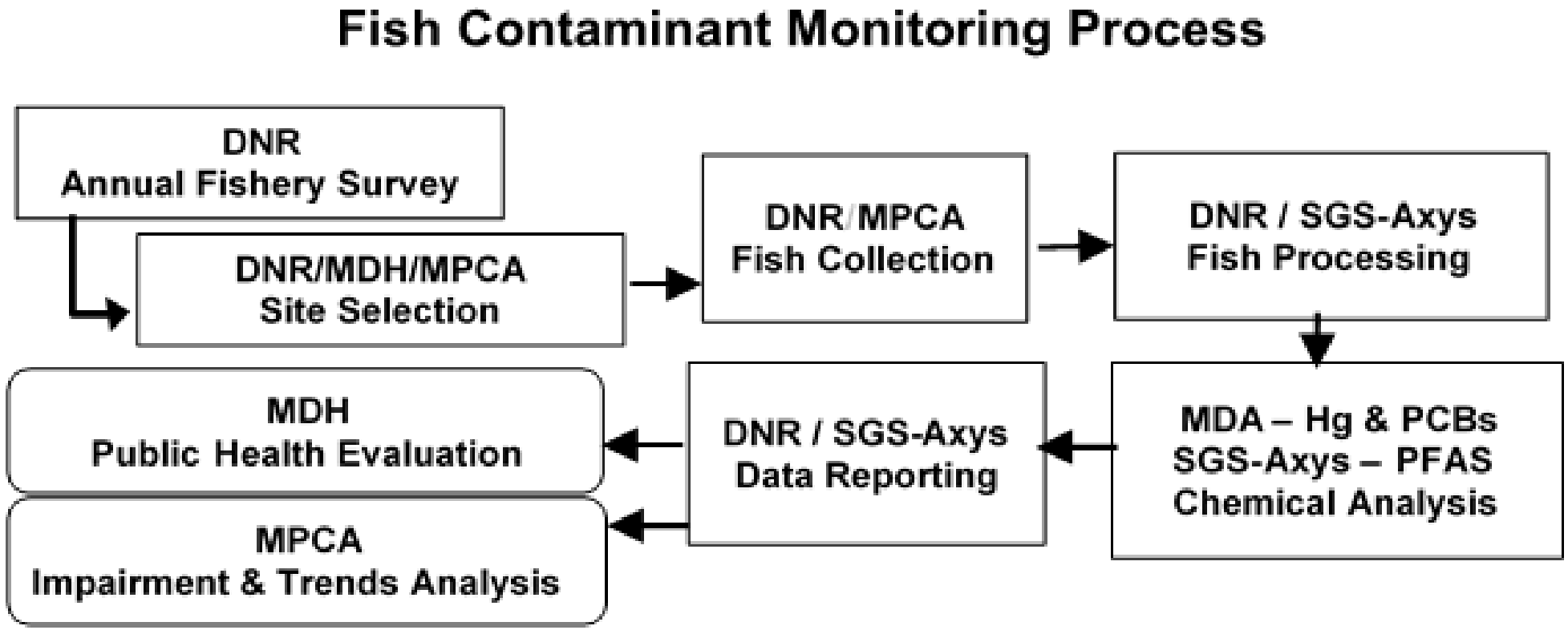
Fish Contaminant Assessment

Jason Moeckel | Manager, Inventory, Monitoring and Analysis Section

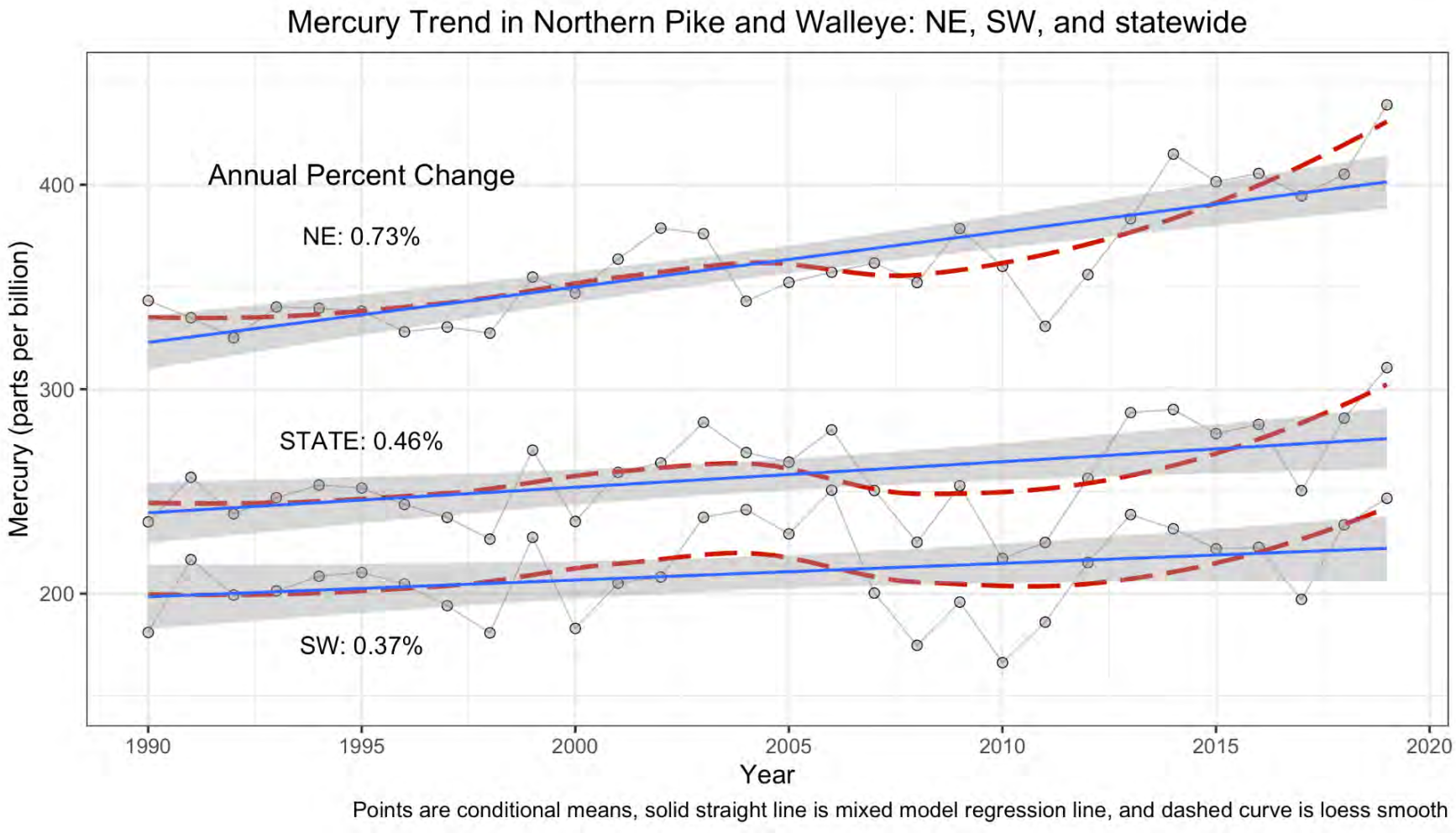
Minnesota Department of Natural Resources

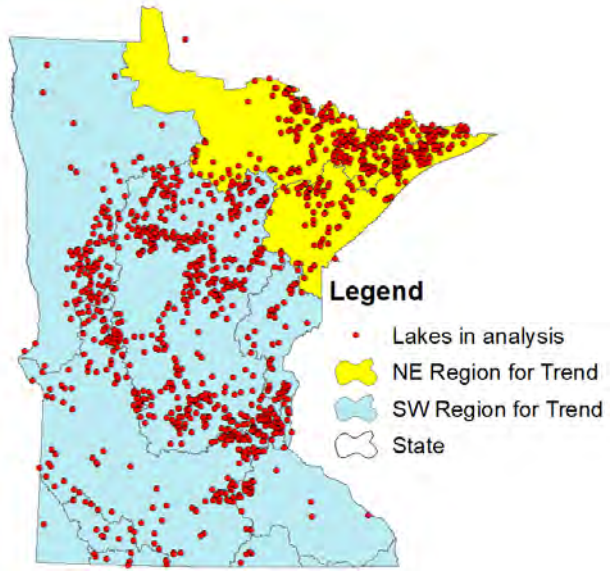
Fish Contaminant Assessment

Fish contaminant monitoring program (FCMP) at a glance



Mercury in walleye and northern pike tissues

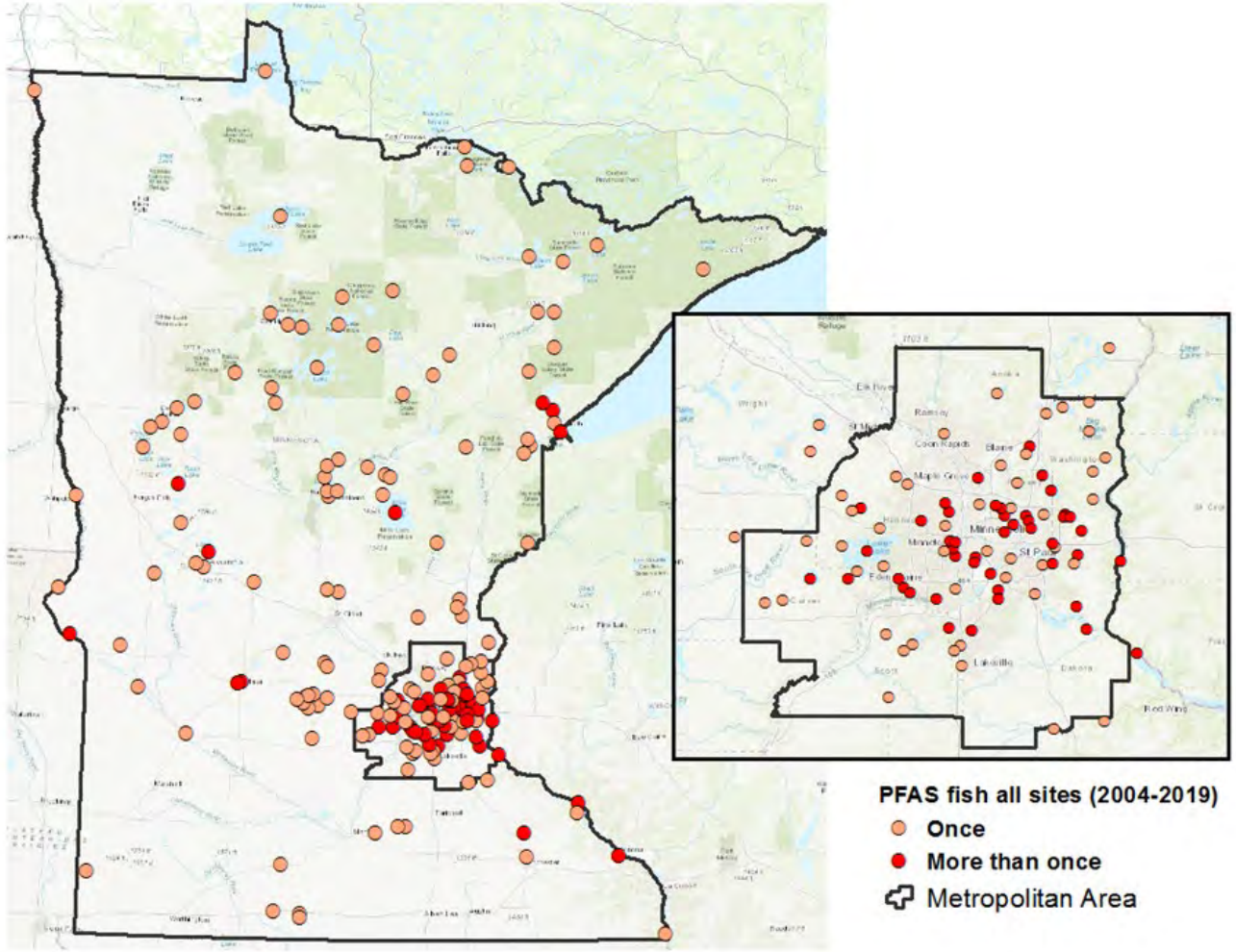




The state trend is at the mean latitude for fish collections (46 degrees). NE includes the Lake Superior and Rainy HUC4 basins. The SW includes all other HUC4 basins.

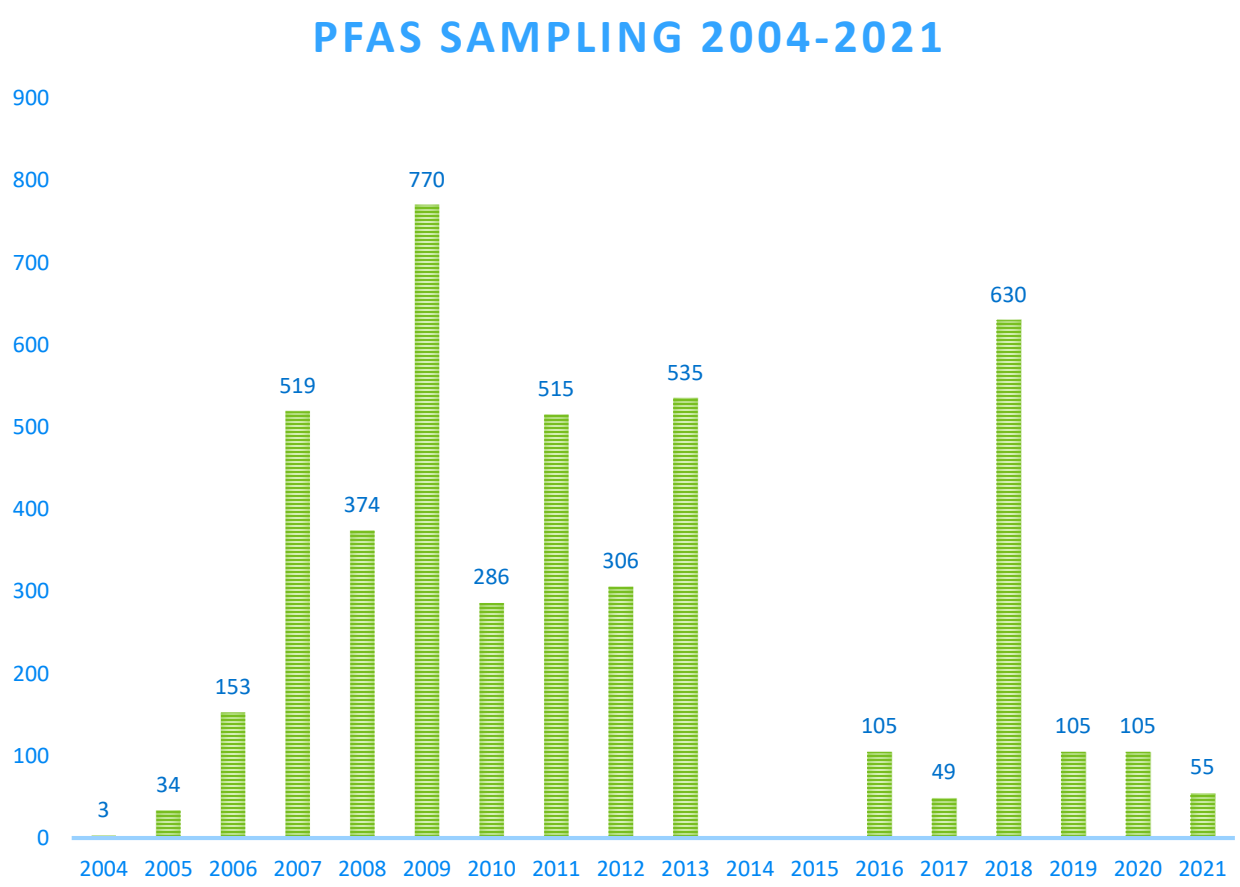
PFAS collections 2004-2019

- Collections since 2004
- Mostly targeted convenience sampling
- Mostly retesting since 2013
- 178 lakes and 12 rivers
- 55 additional waterbodies sampled in 2021.



PFAS collection since 2019 – RED dots are waterbodies of concern

- Year-to-year variability reflects variability in funding (there is no continuous budget for PFAS monitoring)
- Past funding sources include:
  - Funds from consent agreement with 3M, which ended in 2011
  - In-kind analysis at the Environmental Protection Agencies Research Triangle Park (EPA-RTP)
  - Agency for Toxic Substances and Disease Registry (ATSDR).
  - Reallocation of unused FY21 CWF budget due to the COVID-19 crisis.



Fish Contaminant Assessment

	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	**FY22-23**
Clean Water Funds	$270,000	$270,000	$270,000	$270,000	$270,000	$270,000	$350,000
FTEs (state agency staff funded by CWF)							




Application of the Fish Based Index of Biological Integrity (IBI) Framework to Protect and Restore Minnesota Lakes

Derek Bahr, Jacquelyn Bacigalupi, and Jason Moeckel | Minnesota DNR

MINNESOTA

SPORT FISH & WILDLIFE RESTORATION

CLEAN WATER LAND & LEGACY AMENDMENT

Use of Fish IBI in Monitoring and Assessment of Lakes

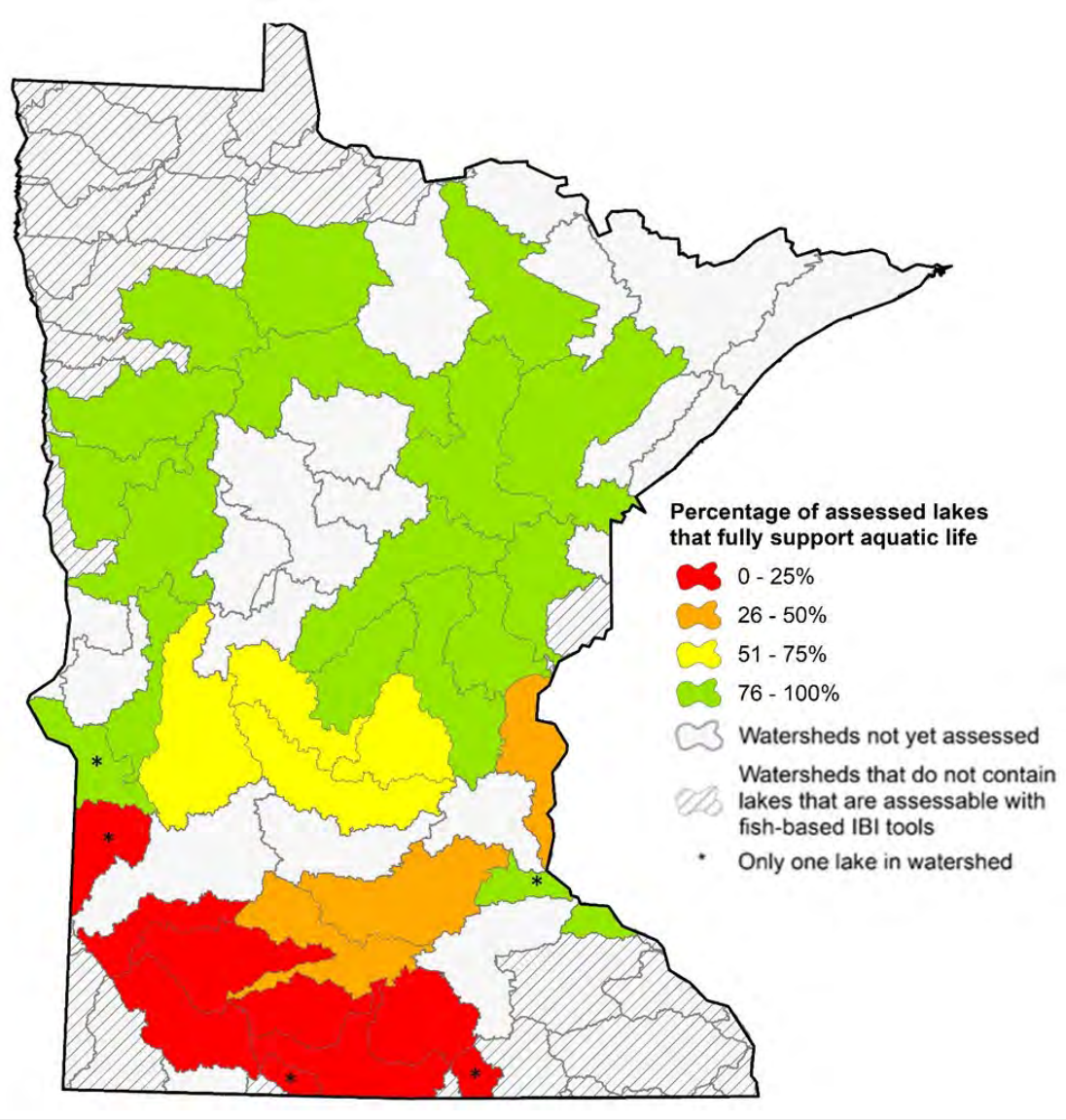
- Four Fish IBIs were developed to evaluate fish community condition in a variety of Minnesota lakes




- Fish IBI results are used to assess the health of lakes and identify those negatively affected by watershed disturbance, shoreline degradation, or other environmental stressors

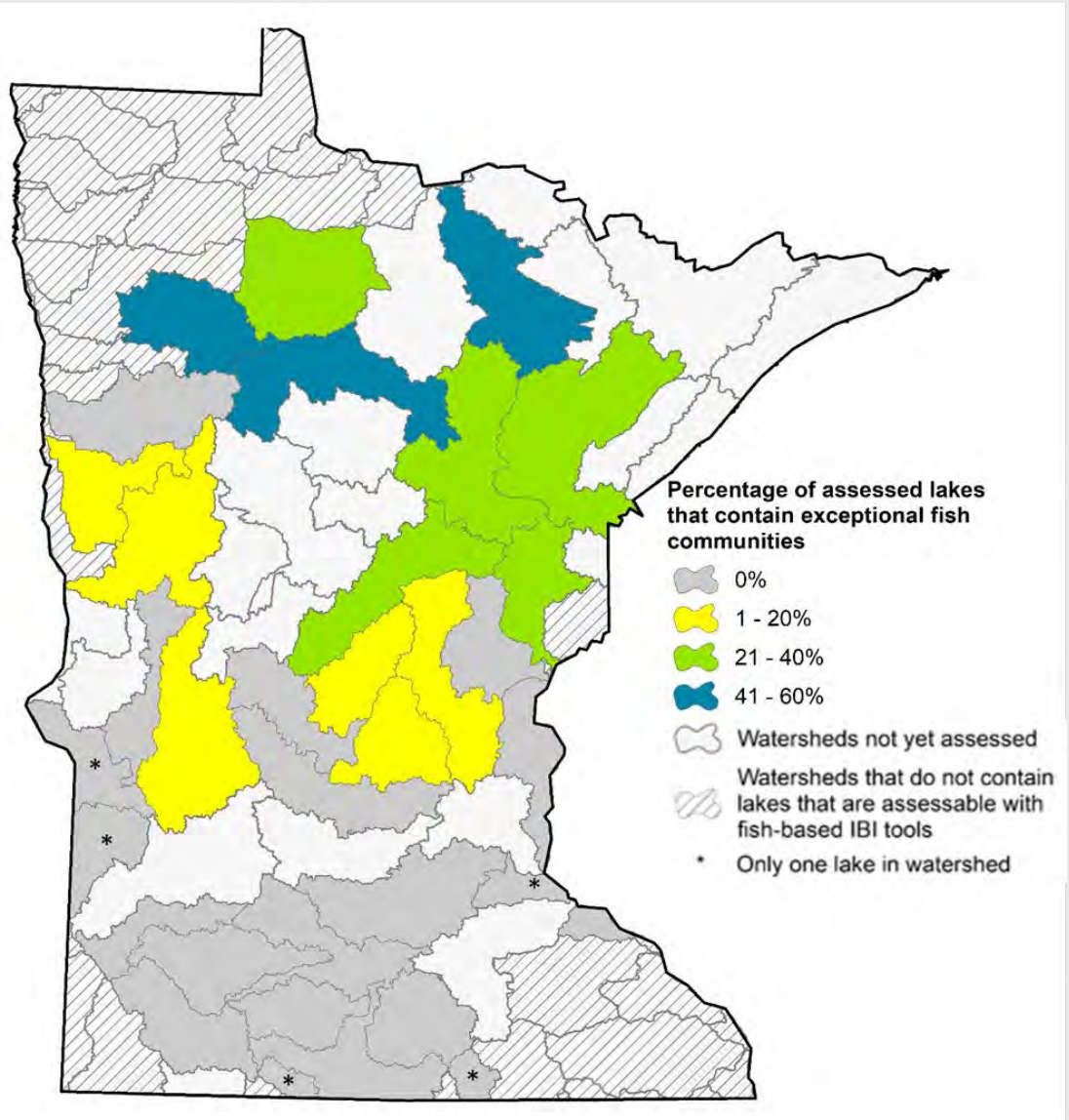
- Fish IBI can also be used to identify exceptional communities and protect them from degradation

Implementation of Fish IBI Monitoring and Assessment in Lakes



- Over 600 lakes in 33 watersheds have been assessed based on the Fish IBI
- 65% of lakes have been identified as fully supporting aquatic life use based on the Fish IBI
- In lakes that are impaired or vulnerable to impairment, stressor ID investigations have identified eutrophication and physical habitat alterations as the most common stressors to fish communities

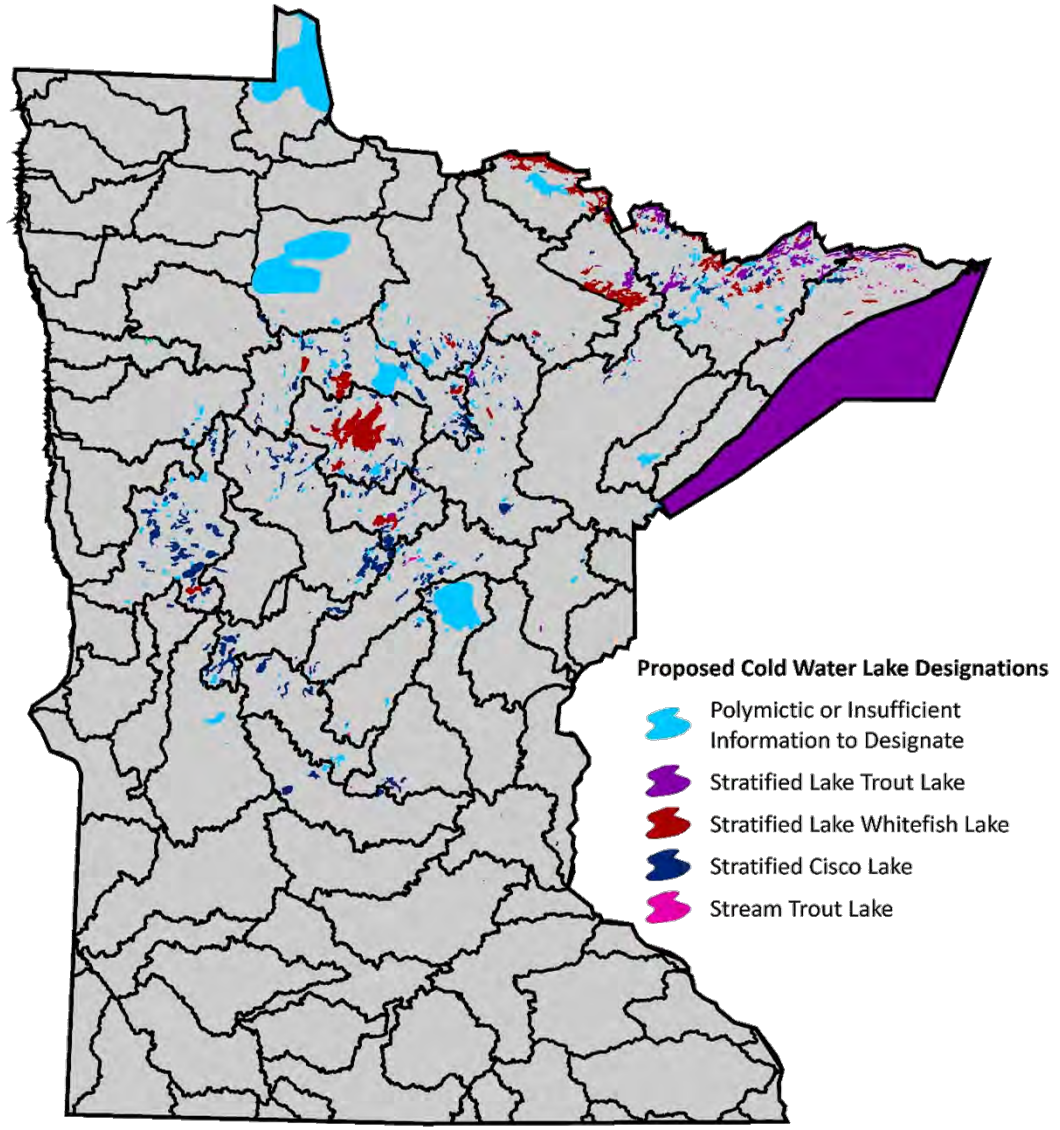
Protecting Exceptional Lakes Based on Fish IBI Data



- 14% of assessed lakes were identified as having exceptional fish communities
- DNR and PCA staff developed more protective standards for lakes supporting exceptional fish communities based on Fish IBI scores
- The standards are currently being piloted and the technical support document will be open for public comment in 2022
- Contact Will Bouchard or Jacquelyn Bacigalupi for more information

Coldwater Lake Standards Development

- MNDNR IBI and MPCA scientists identified 740 lakes supporting cold water fish habitat (Trout, Lake Whitefish, Cisco)
- Scientists developed temperature/oxygen and water quality standards to protect cold water fishes and their habitats
- The technical support document will be open for public comment in 2022
- Contact Will Bouchard or Derek Bahr for more information



Lake Biological Integrity Assessment

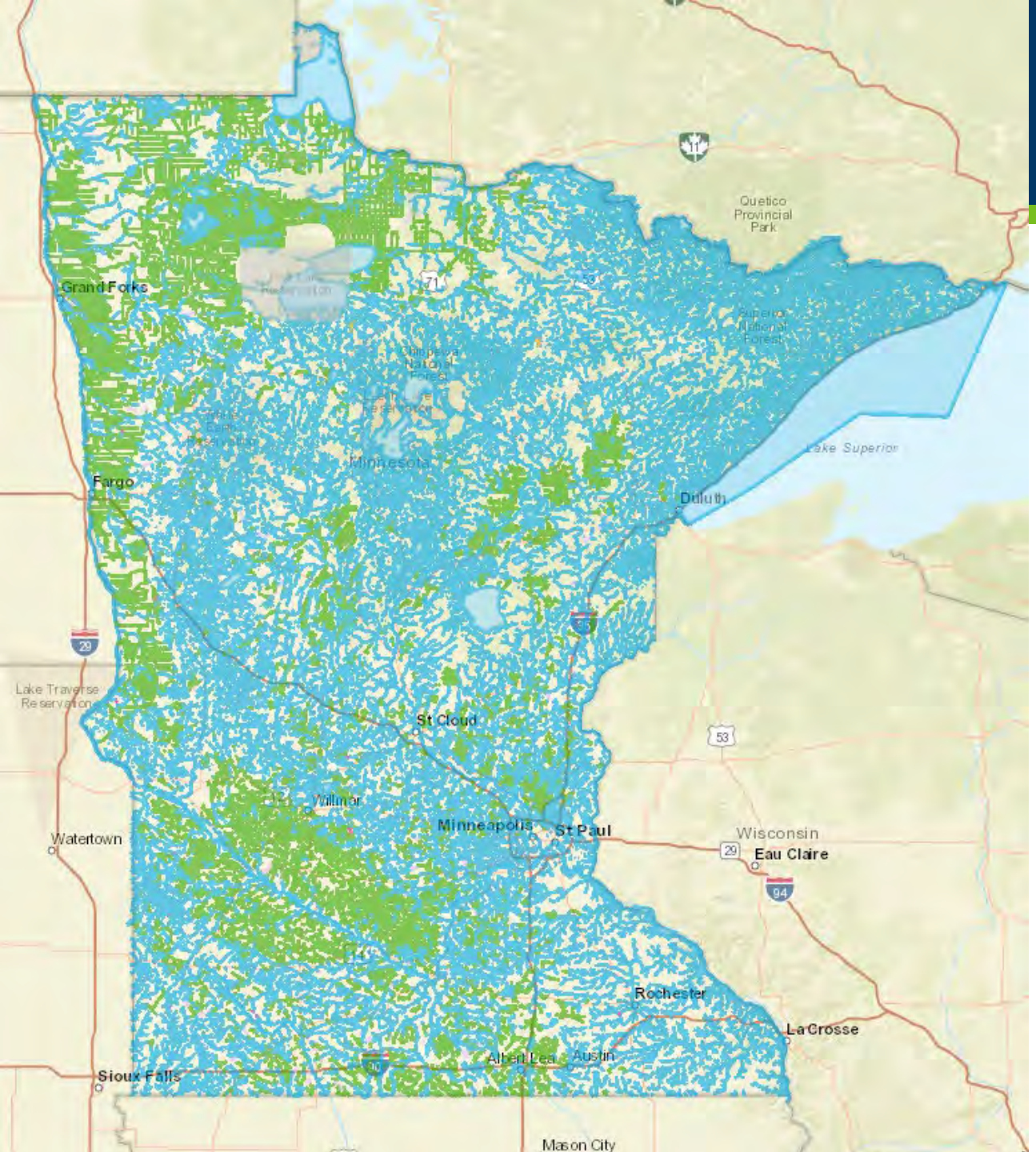
	FY10- 11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23
Clean Water Funds	$1.32M	$2.3M	$2.6M	$2.6M	$2.5M	$2.5M	$2.0M
FTEs (state agency staff funded by CWF)	10	13	13	15.5	14	11	~ 14

Buffer Map Maintenance

Jason Moeckel | Manager, Inventory, Monitoring and Analysis Section

Minnesota Department of Natural Resources

Buffer Map Maintenance



Buffer Map Legend

Lakes, Reservoirs, and Wetlands

- 50-ft Buffer
- Needs Field Review

Watercourses

- 50-ft Buffer
- 16.5-ft Buffer
- Needs Field Review
- Potential trout stream delisting and buffer map removal
- Public Water watercourse removal per Commissioner's Order

Tribal Lands

- Red Lake

Buffer Map Maintenance

	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23
Clean Water Funds		$650,000	$200,000	$200,000	$50,00
FTEs (state agency staff funded by CWF)		1.2	0.5	0.3	~0.2

Stream Flow Monitoring

Jason Moeckel | Manager, Inventory, Monitoring and Analysis Section

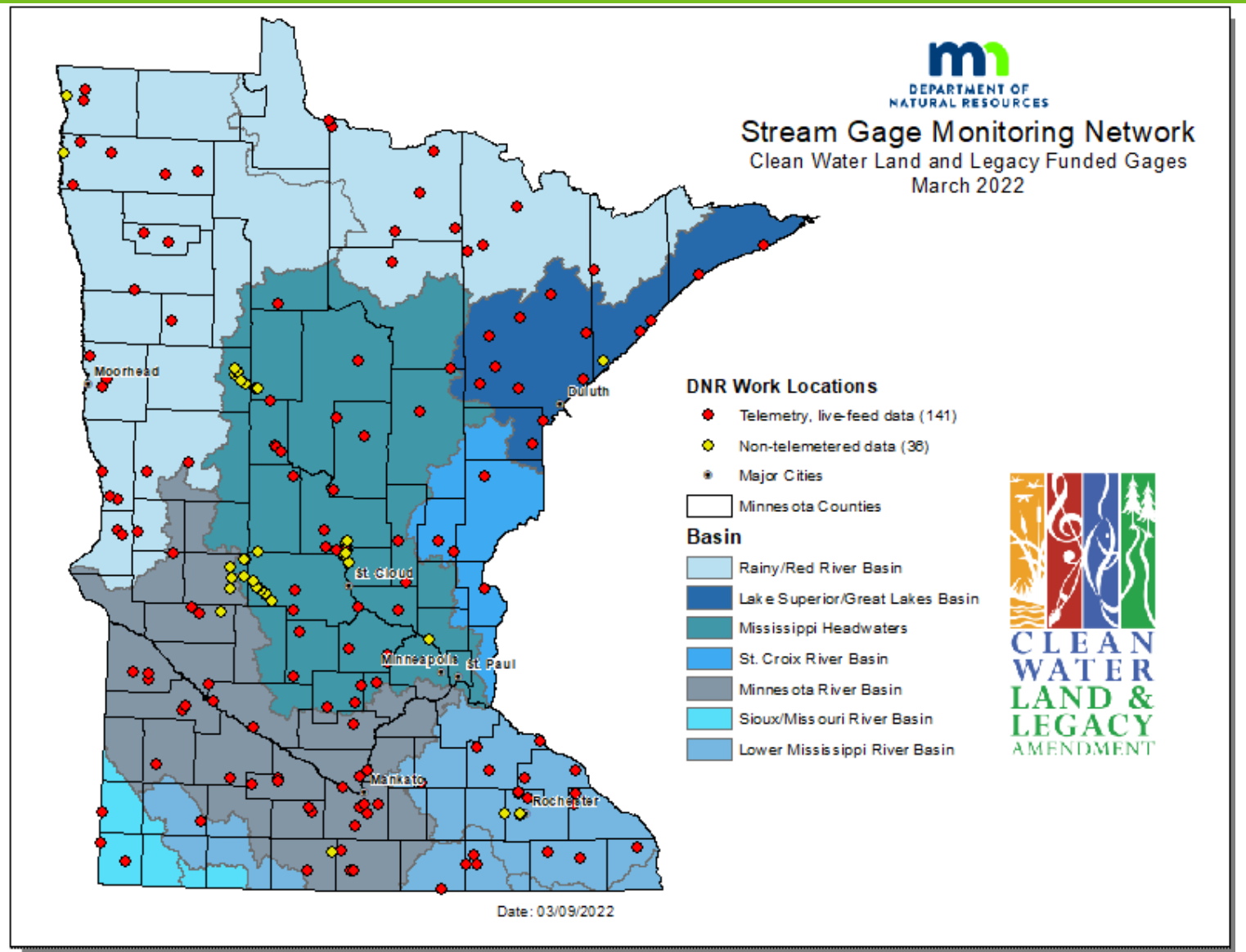
Minnesota Department of Natural Resources

MINNESOTA

Statewide Streamflow and Sediment Monitoring

FY10-22

- 177 Continuous Sites (CWF) (271 total)
- 15,385 flow measurements
- 1,500 sediment samples
- https://www.dnr.state.mn.us/waters/csg/index.html



Flow Gaging Stations

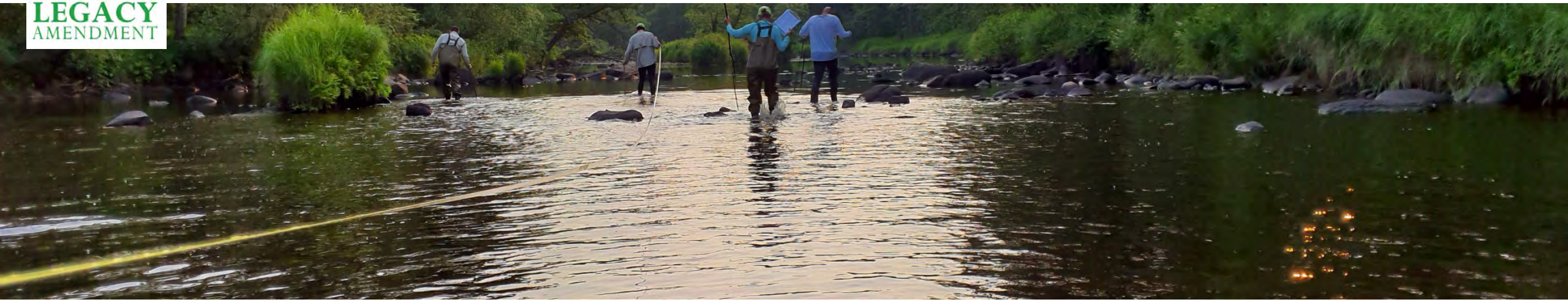
Flood Flows

Winter Flows

Stream Flow Monitoring

	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23
Clean Water Funds	$1.5M	$3.7M	$4M	$4M	$3.9M	$4.0M	$4.0M
FTEs (state agency staff funded by CWF)	5	7	14	16.1	15	15.2	~15
Dollars Passed Through*	$300K	$600K	$600K	$600K	$600K	$428K	~$300K

**Pass through $ for bedload and stream monitoring contract with the USGS.*



River and Lake Monitoring and Assessment

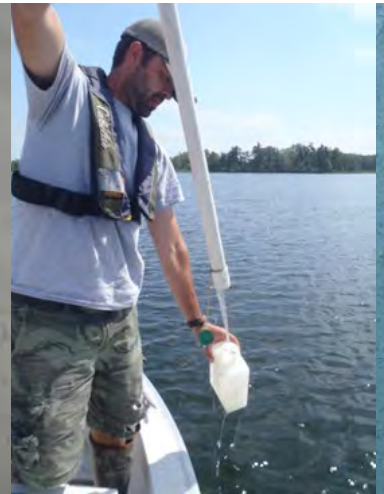
Kimberly Laing| Manager, Surface Water Monitoring Program

Minnesota Pollution Control Agency

River and Lake Monitoring and Assessment

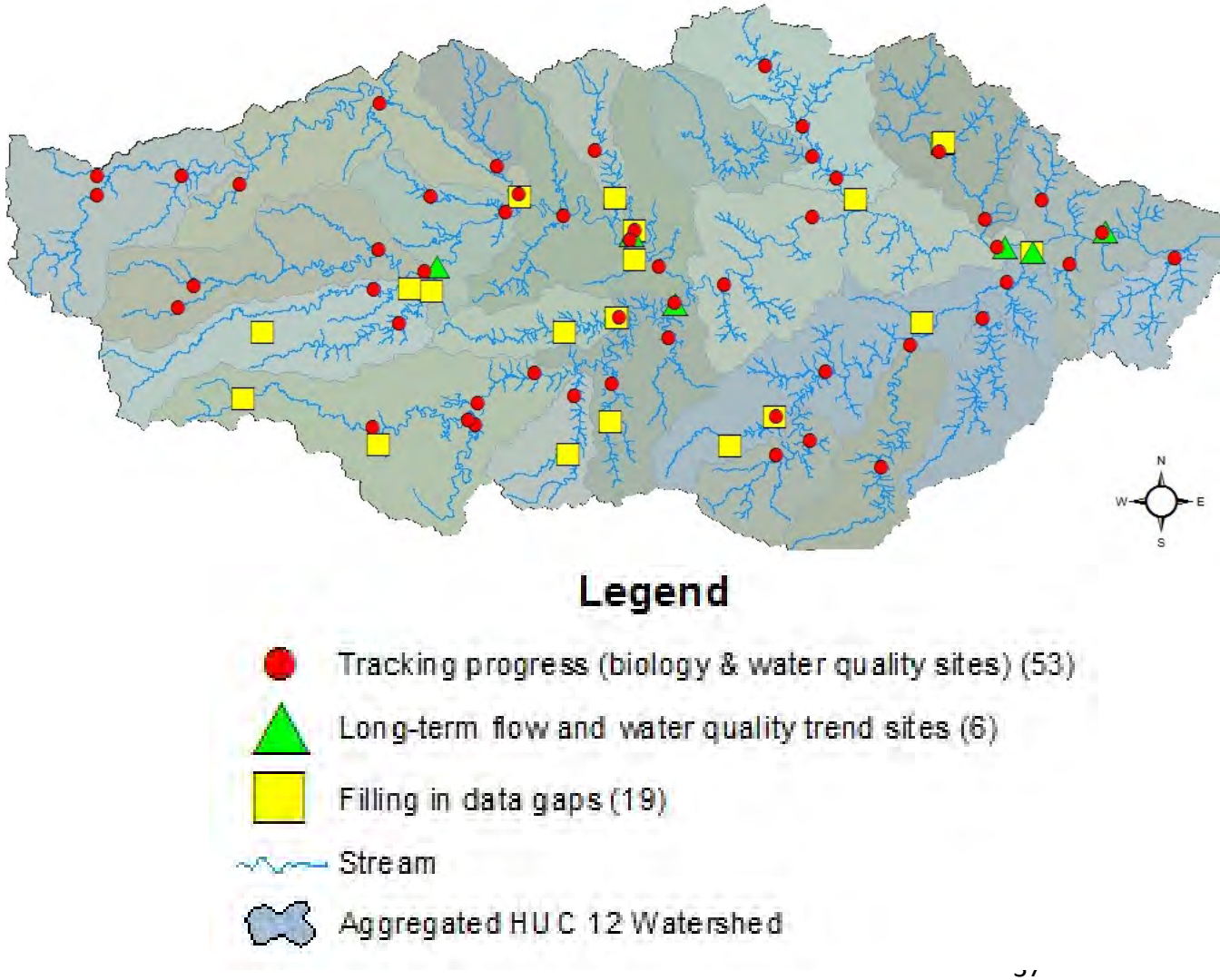
- Comprehensive stream and lake monitoring for recreation and aquatic communities to assess watershed condition
- Unbiased stream design to capture watershed health and identify areas for protection and restoration
- Targets lakes of greatest use; large, publicly accessible waters



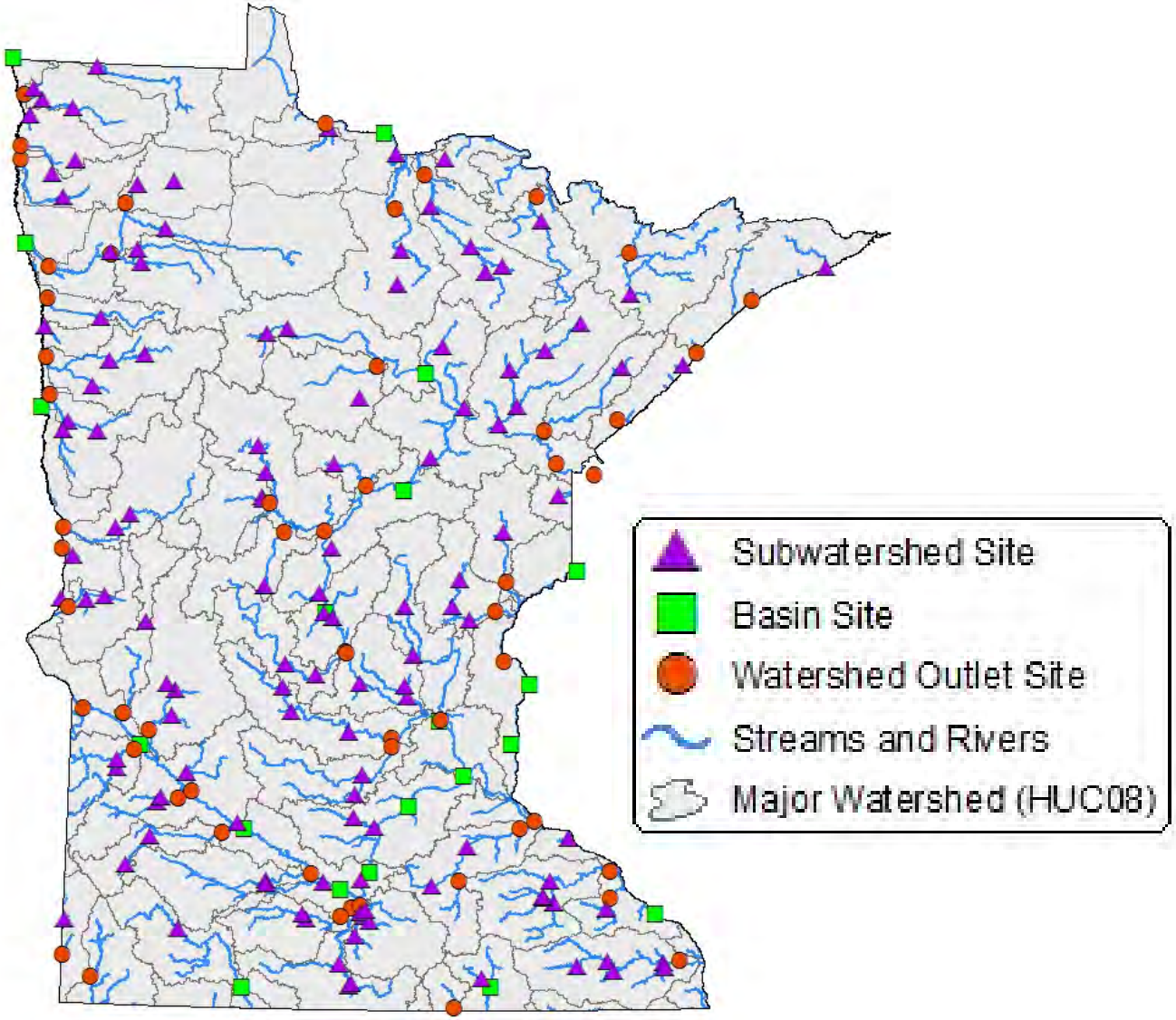




Redesigned Approach

- Tracking progress and filling data gaps
- Reduction in agency selected sites
- Addition of other state and local need sites
- Supports assessment, evaluation of progress over time, removal of impairments
- Addresses locally identified needs



Pollutant Load Monitoring in Rivers



- Goal: ID reduction strategies, measure progress
  - TMDLs, watershed models
  - Track trends over time, progress toward goals
- Features:
  - Flow and water chemistry
  - ~70% of sites monitored by local partners

Contaminants of Emerging Concern

- Condition monitoring
  - Surface water – lakes and streams
  - Groundwater
- Source investigation
- Effects investigation

Outcomes

- Comprehensive statewide lake and stream chemistry and biology data
- Assessments in every watershed to inform local protection and restoration
- Pollutant loading data for high quality watershed modeling
- Permanent river trend network gauging progress over time
- Sampling and evaluating watershed condition change over time
- Refined approach to collect data for locally identified needs
- Active engagement of monitoring partners statewide

Additional Funds

Lake monitoring increase

- Rising costs limited ability to contract out lake monitoring to local partners.
- We'd like to continue to build and maintain this capacity at the local partner level.

Biological Monitoring Training Program

- Coordinator to engage with local partners, consultants and others who would like to partake in stream biological monitoring.
- Initial development of the external data program will require additional documentation, training curriculum development, and technology modifications.

River and Lake Monitoring and Assessment

	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23
Clean Water Funds	15M	15M	15.2M*	16.7M*	16.6M*	16.3M*	14.8M*^
FTEs (state agency staff funded by CWF)	~36	~41	44.8	44.4	47.6	46.7	46.9
Dollars Passed Through	2.8M	2.4M	2.6M*	3.3M*	2.4M*	2.3M*	2.8M*^

- Requesting increase in FY24/25 funding to meet partner requests

**includes funds passed through to Red River Watershed Monitoring Board*
^includes funds passed through to Friends of MN Valley River Watch

Groundwater Monitoring & Assessment

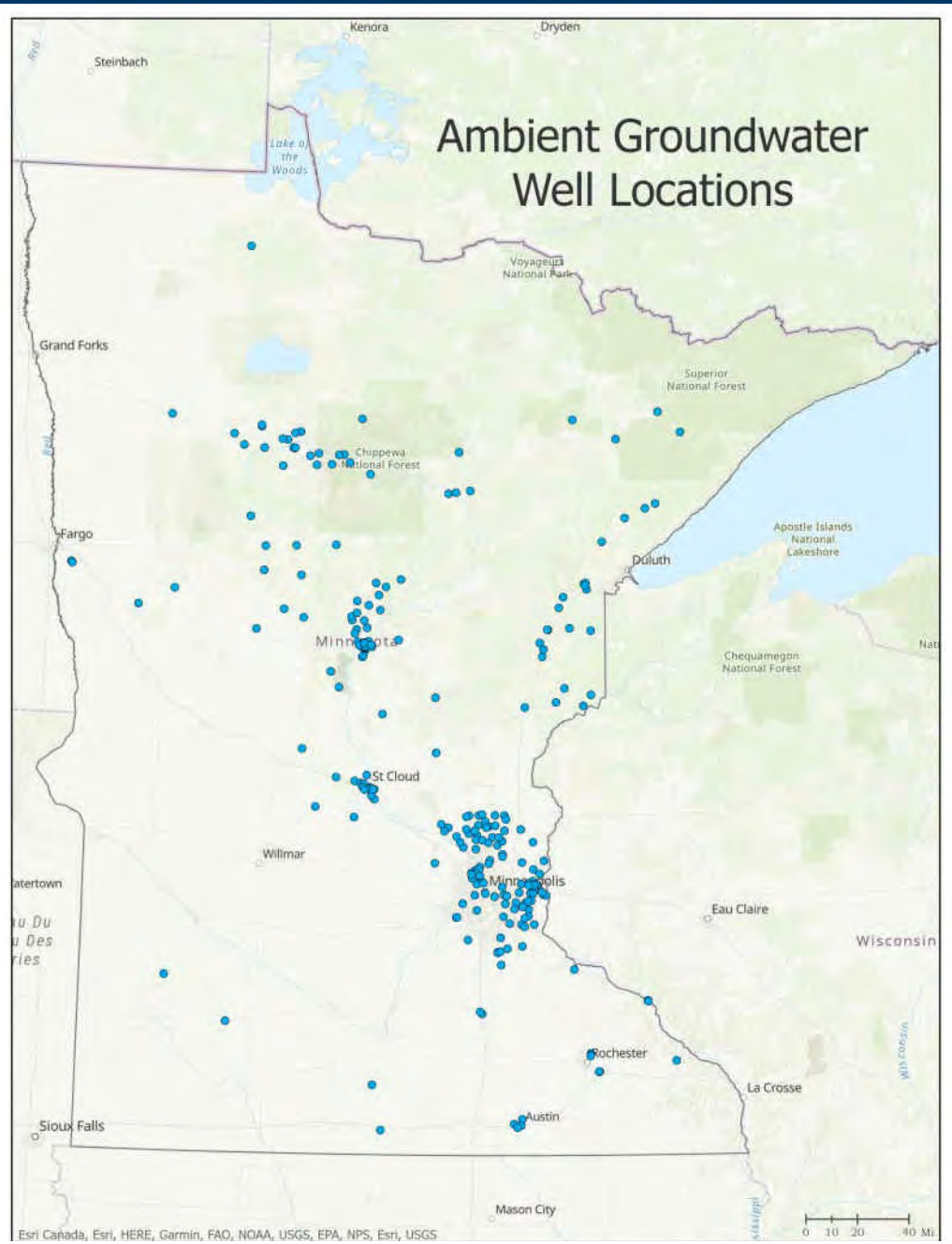
Catherine Neuschler |Manager, Water Assessment Section

Minnesota Pollution Control Agency

Groundwater Monitoring & Assessment

- Focus
  - Ambient (no known sources of contamination)
  - Non-agricultural pollutants
- Purpose
  - Provide data and information to understand ambient groundwater quality
  - Analyze and understand trends in groundwater quality
  - Gauge effectiveness of land use practices and BMPs to reduce pollution

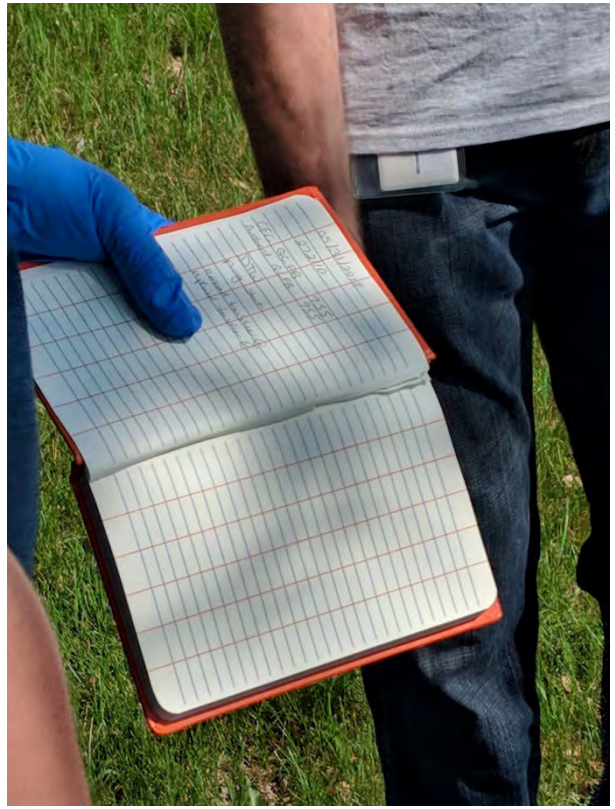
Program Design and Activities



- Groundwater monitoring network
  - "Early warning"
    - Shallow aquifers, vulnerable to contamination, urban areas
  - ~270 wells
    - Visit each annually
    - 40 wells annually measured for CECs

Program Design and Activities

- Other groundwater work (supported by the monitoring) includes:
  - Data and information contributed to GRAPS
  - Development of predictive modeling tools for groundwater/ surface water interaction
  - Source investigation and BMP development



New and Upcoming Program Work

- Regular evaluation of network and sampling needs
  - Use of data loggers and telemetry to increase understanding of pollutant dynamics and variability
- Understanding key pollutants and changes of concern (climate)
  - Chloride migration and seasonal variation; potential climate effects
  - Potential integration of key new pollutants like PFAS
- Responding to regulatory changes
  - Requirements to look at groundwater as a conduit to surface water under CWA
- Increase focus on data analysis and communication

Groundwater Monitoring & Assessment

	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23
Clean Water Funds	$2.25M	$2.25M	$2.25M	$2.36M	$2.36M	$2.36M	$1.9M
FTEs (state agency staff and seasonals)	~3	~3	2.9	3.5	4.8	4.8	4.2

- Envision steady funding at pre-covid levels moving forward

Pesticide Monitoring

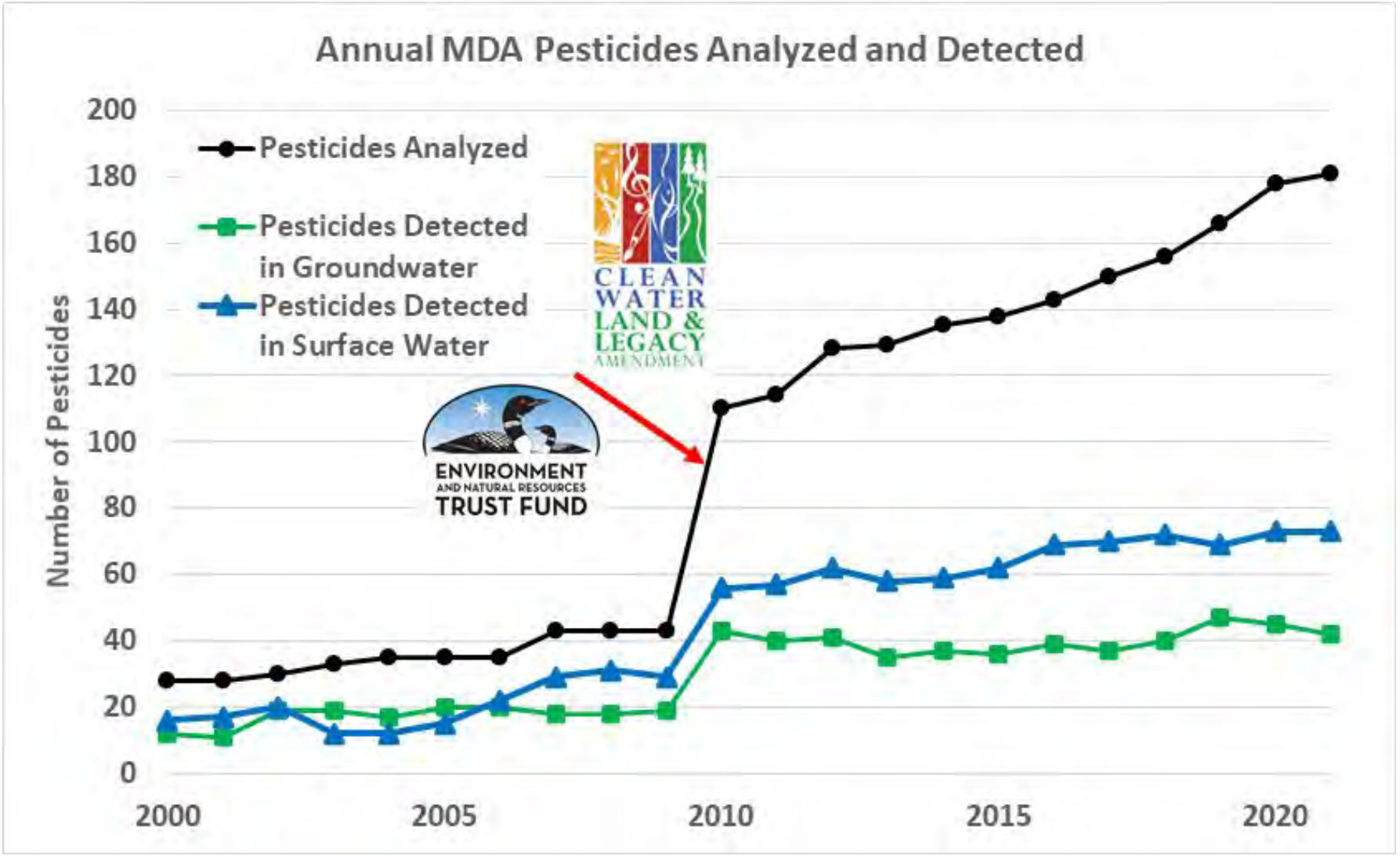
Bill VanRyswyk | Supervisor, Monitoring and Assessment Unit

Minnesota Department of Agriculture

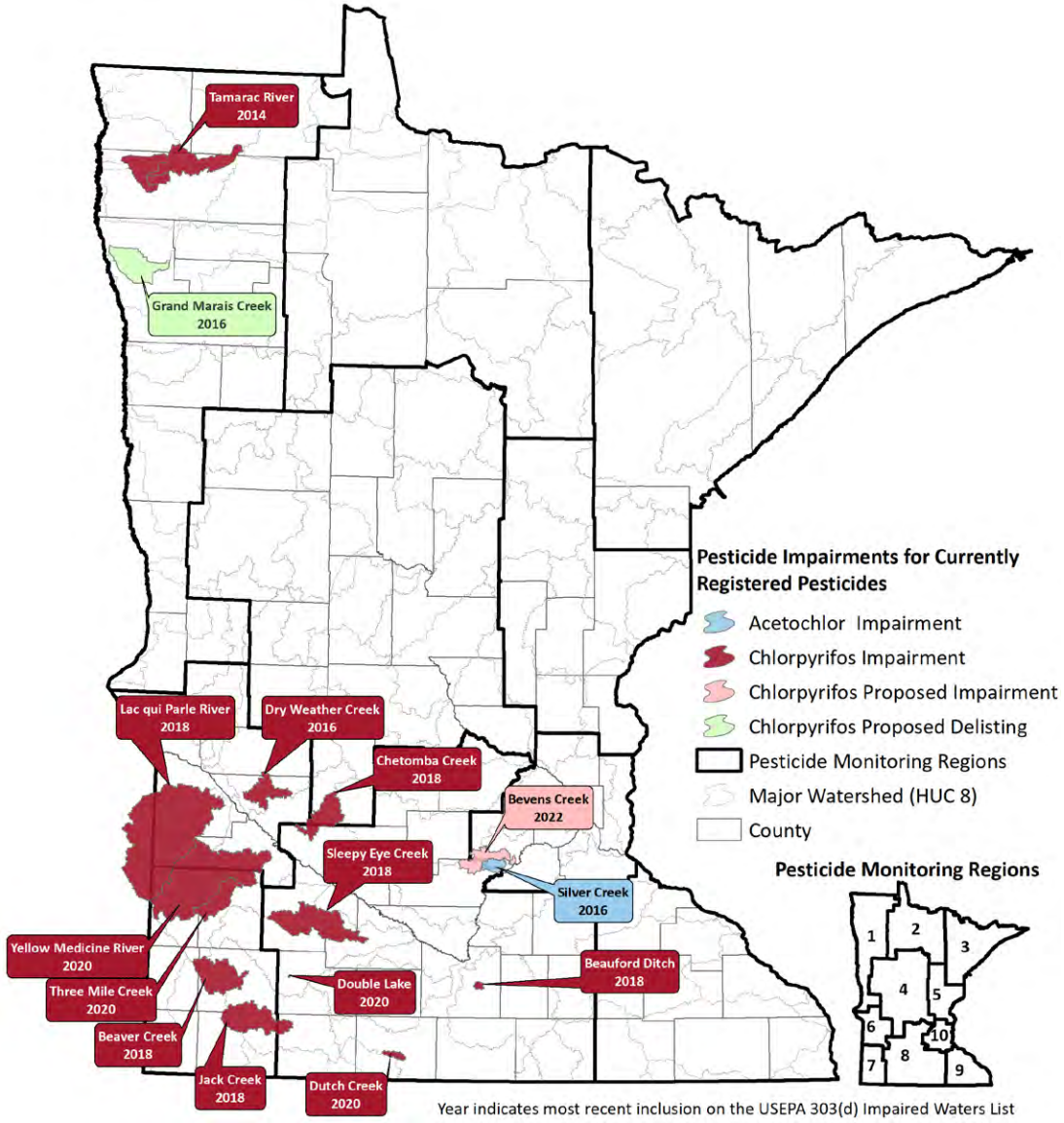
Monitoring for Pesticides in Surface Water and Groundwater

Outcomes

- More Pesticides
- More Samples
- More Results



Surface Water Pesticide Impairments



Impairments for Two Pesticides

- Acetochlor (herbicide)
- Chlorpyrifos (insecticide)


DEPARTMENT OF AGRICULTURE

DECEMBER 2018

Water Quality Best Management Practices for All Agricultural Herbicides

In order to protect Minnesota's water resources, the Minnesota Department of Agriculture (MDA), along with University of Minnesota Extension and other interested parties, has developed a set of core voluntary Best Management Practices (BMPs). The core voluntary BMPs are provided on the opposite side of this page and should be adopted when applying all agricultural herbicides in Minnesota. The BMPs may also refer to mandatory label use requirements. Always read product labels. Additional information and references accompany the BMPs.

The MDA has also developed unique voluntary BMPs (on separate pages) for the use of specific herbicides due to their presence in Minnesota's groundwater or surface water from normal agricultural use. The herbicide-specific BMPs should be adopted when using herbicides that have been, or whose breakdown products have been, frequently detected in groundwater (acetochlor, atrazine, metolachlor and metribuzin) or those detected at concentrations of concern in surface water (acetochlor and atrazine). If the BMPs are proven ineffective, mandatory restrictions on herbicide use and practices may be required. For information on monitoring results for herbicides in Minnesota's water resources, refer to the MDA's Monitoring and Assessment webpage: www.mda.state.mn.us/monitoring.

Careful planning in the use of herbicides – as part of an Integrated Weed Management Plan – can help protect water resources from future contamination and help reduce the levels of herbicides currently in Minnesota's waters. Always rotate herbicides with different sites-of-action and use full label rates of herbicides to delay weed resistance. Planning also promotes the efficient and economical use of herbicides.

State and federal law can require that the use of a pesticide be limited or curtailed due to the potential for adverse impacts on humans or the environment. The Minnesota Pesticide Control Law (Minn. Stat. 18B) outlines state regulatory authority to prevent these impacts. The Minnesota Groundwater Protection Act (Minn. Stat. 103H) allows for potential regulations on the use of herbicides frequently detected in groundwater. In addition, there are other state and federal laws that could lead to restrictions on the use of herbicides contributing to surface water impacts. Adopting these BMPs, and a sensible and cautious attitude regarding the proper use of herbicides, will help growers to maintain access to a variety of herbicides as important and diverse tools in the effort to control weeds and protect water resources.

Best Management Practices (BMPs) for Herbicide Use

- Voluntary BMPs are designed to prevent and minimize the degradation of Minnesota's water resources while considering economic factors, availability, technical feasibility, implementability, effectiveness, and environmental effects.
- From a practical standpoint, these BMPs are intended to reduce the movement of herbicides to the environment and to encourage the efficient use of herbicides, chemistry-rotation, and non-chemical approaches to weed control. These practices should be part of an Integrated Weed Management program to reduce development of herbicide resistant weeds, save costs, and increase profitability.

Integrated Weed Management

Reducing crop losses by combining cultural, chemical and mechanical techniques in ways that favor the crop and suppress weed populations and vigor.

See "Additional Information & References" for more details and practical examples.

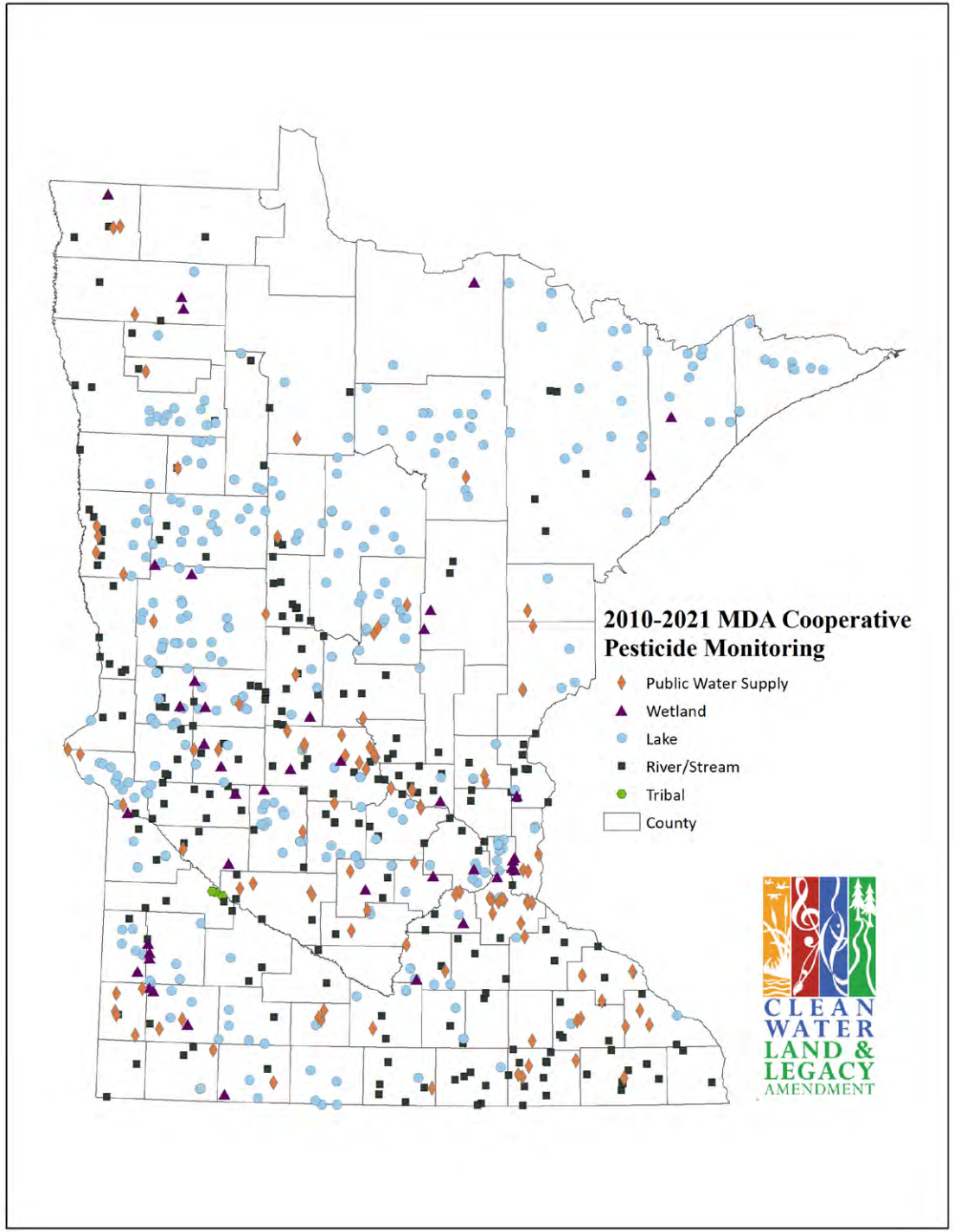
MDA Response

- Develop & Promote BMPs
- More monitoring
- Education and Outreach
- Inspections and Enforcement

Cooperative Pesticide Monitoring

Funding Provides Capacity For Pesticide Sampling:

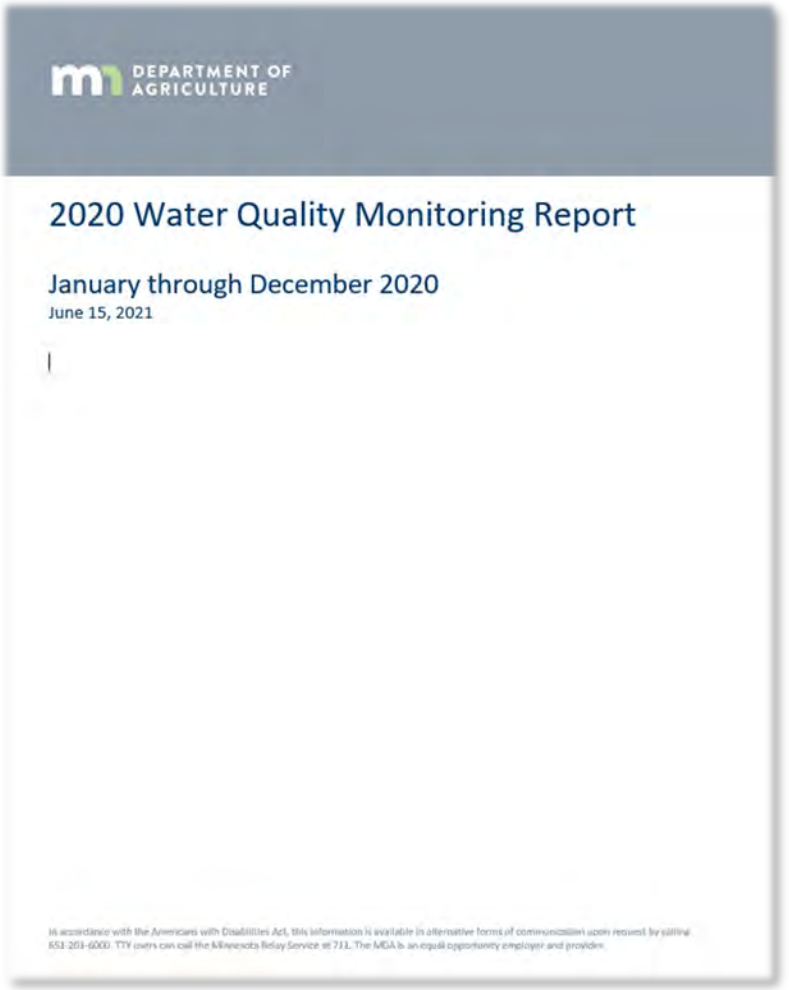
- Community Public Water Supply – MDH
- National Lakes Assessment – MPCA
- National Rivers & Streams Assessment – MPCA
- National Wetlands Assessment – MPCA
- Tribal Partnerships



How is the Pesticide Data Used?

1. **Pesticide management and BMP development**
2. **Risk Assessment – MDH and MPCA review pesticide data**
   - **Drinking Water & Aquatic Life**
3. **Water Planning (WRAPS, GRAPS, 1W1P)**
4. **Other Uses**
   - EPA and other federal and state agencies
   - Research and Modeling
   - Public (homeowners, water suppliers, lake and watershed organizations, etc.)
5. **Pesticide data is published annually and is publicly available through statewide water quality database (EQuIS)**

www.mda.state.mn.us/monitoring


DEPARTMENT OF AGRICULTURE

2020 Water Quality Monitoring Report

January through December 2020

June 15, 2021

Monitoring for Pesticides in Surface Water and Groundwater

	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	Total
Clean Water Funds	$0.68M	$0.7M	$0.7M	$0.7M	$0.7M	$0.7M	$0.7M	**$4.88M**
FTEs (state agency staff funded by CWF)	2.25	2.25	2.25	2.25	2.5	2.3	1.9	
$ Passed Through	0	0	0	0	0	0	0	

Private Well Pesticide Sampling – Overview

- Goal – Inform well owners about pesticide presence in drinking water.
- Homeowners with a nitrate detection during the initial Township Testing Program sampling are offered to have their well sampled for pesticides.
- Moving forward we plan to go beyond Township Testing Wells, focusing on areas where the risk is greatest.

Private Well Pesticide Sampling – Phase 1 -> Phase 2

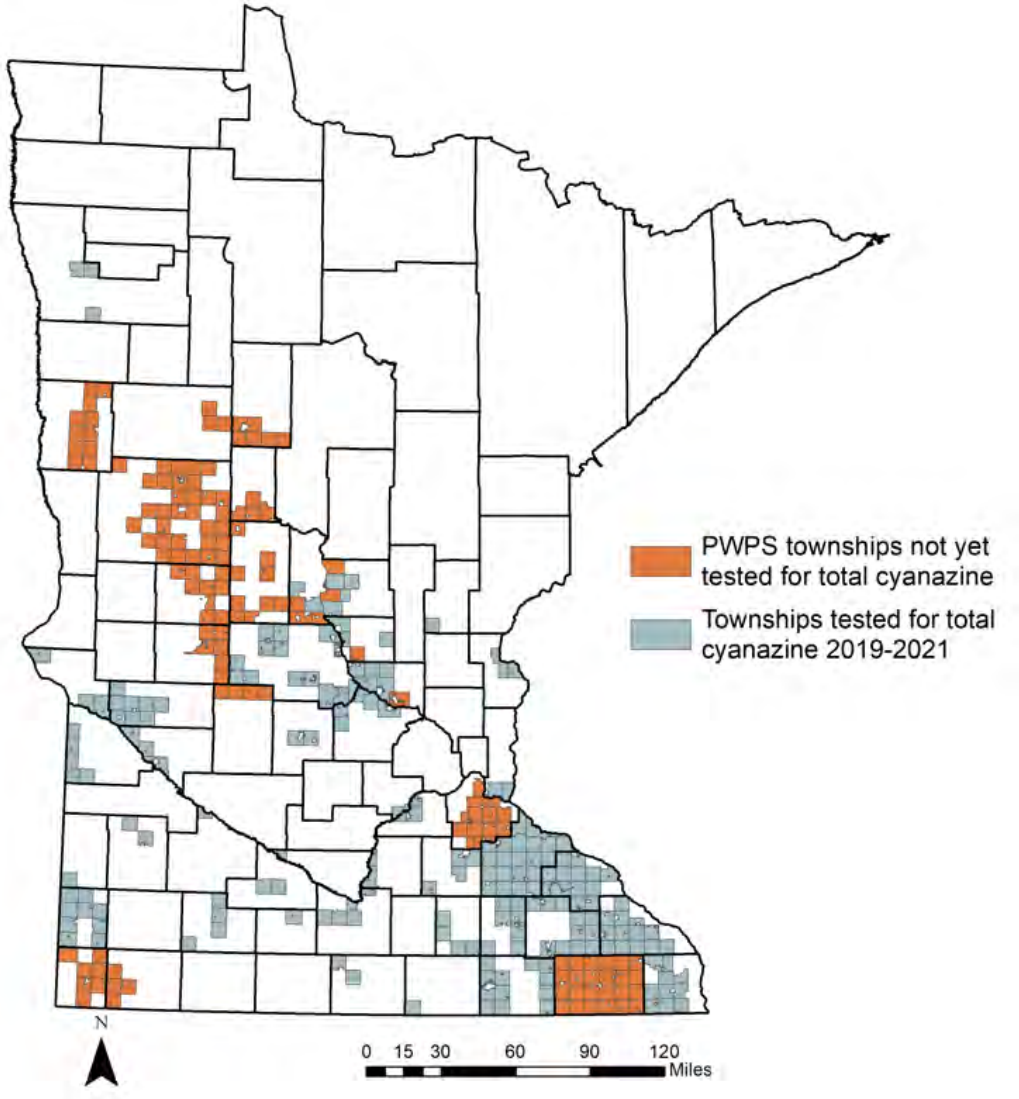
Phase 1: Approximately 5,700 wells were sampled in 50 counties between 2016 and 2020.

- Tested for ~130 pesticide chemicals.
- Pesticide detections in 76% of wells, most pesticides were present at very low levels.

Phase 2: Starting in the summer of 2021, sampling focused on 11 pesticide chemicals (atrazine and cyanazine related).

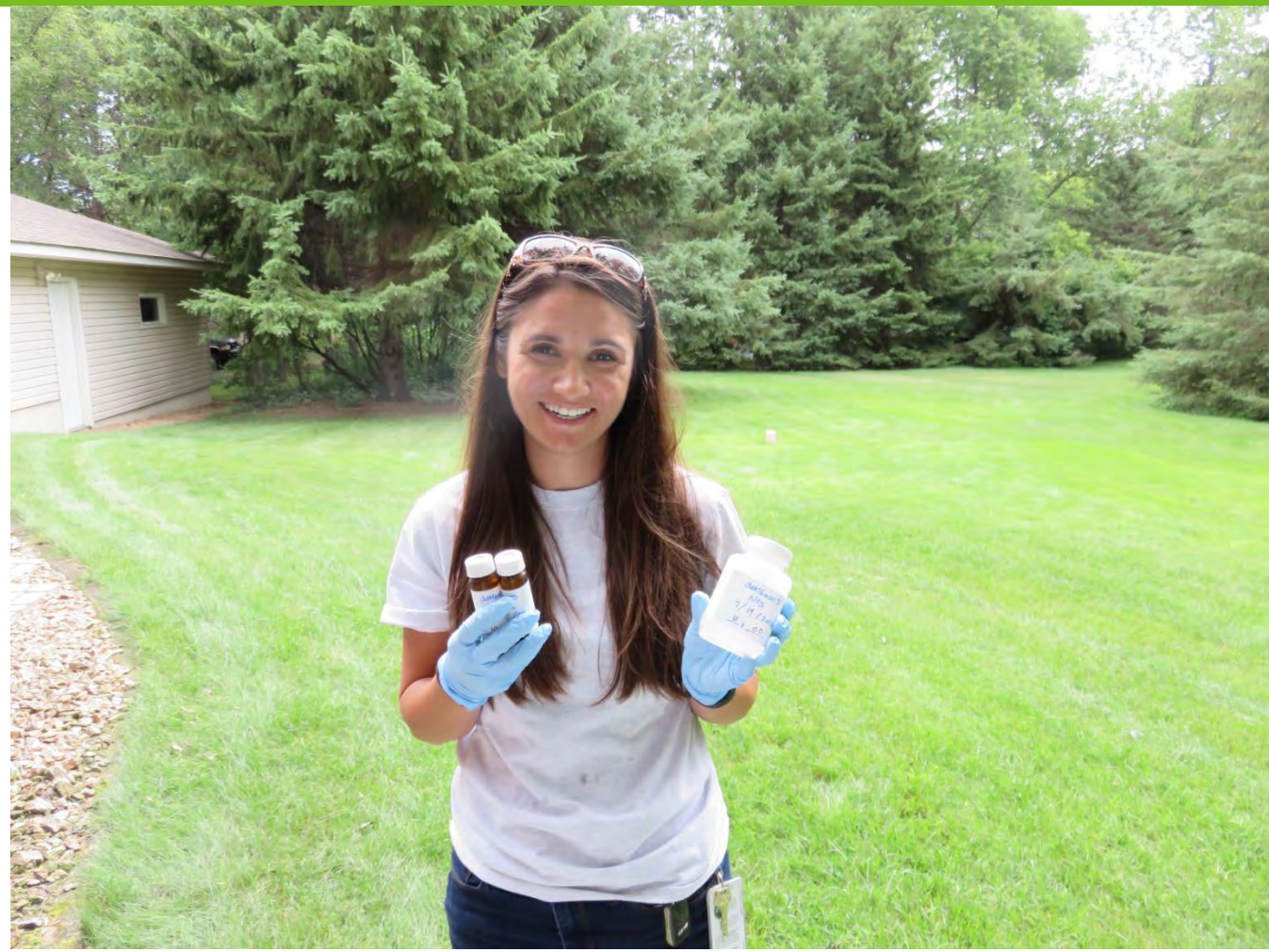
Drinking water reference value exceedances:

- 2016-2018: 3 of the 3,858 (0.08%) wells tested.
- 2019-2021: 97 of the 2,354 (4%) wells tested.
  - 96 were due to total cyanazine.



Private Well Pesticide Sampling - Outcomes

- Over 4,300 homeowners have been notified of a pesticide being present in their well water.
- Also tested home water treatment systems (99% pesticide removal with reverse osmosis).
- Data used by MDA and local water planners.
- Used CWF to leverage an additional $60,000 in grants from EPA.



Pesticide Testing in Private Wells

	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	Total
Clean Water Funds	$0.11M	$1.54M	$2M	$2M	0.87M	**$6.52M**
FTEs (state agency staff funded by CWF)		2.6	2.75	2.1	1.25	
Dollars Passed Through	0.07M	1.13M	1.62M	0.98M		

- Approximately 75% of the total funding has passed through to contract laboratories.
- FY14-FY17 funding was part of Nitrate in Groundwater appropriation.

Drinking Water Contaminants of Emerging Concern

Sarah Fossen Johnson, Unit Supervisor

Minnesota Department of Health

Chemicals of Emerging Concern (CEC) Initiative

Provides health-based information to help determine if contaminants found in Minnesota waters could be a health risk to people drinking that water.

Evolution of the CEC program

2010-2020

- Focus on researching CECs and program planning activities
- Apply standard risk assessment methods
- “One chemical at a time” approach
- Longer timeframe for guidance and method development
- Limited partner activities

Currently

- Focus on supporting CEC activities by partners and stakeholders
- Development of new and novel RA methods
- Class approach, many chemicals at once
- Pressure for rapid development of guidance and methods
- Extensive CEC partnership activities

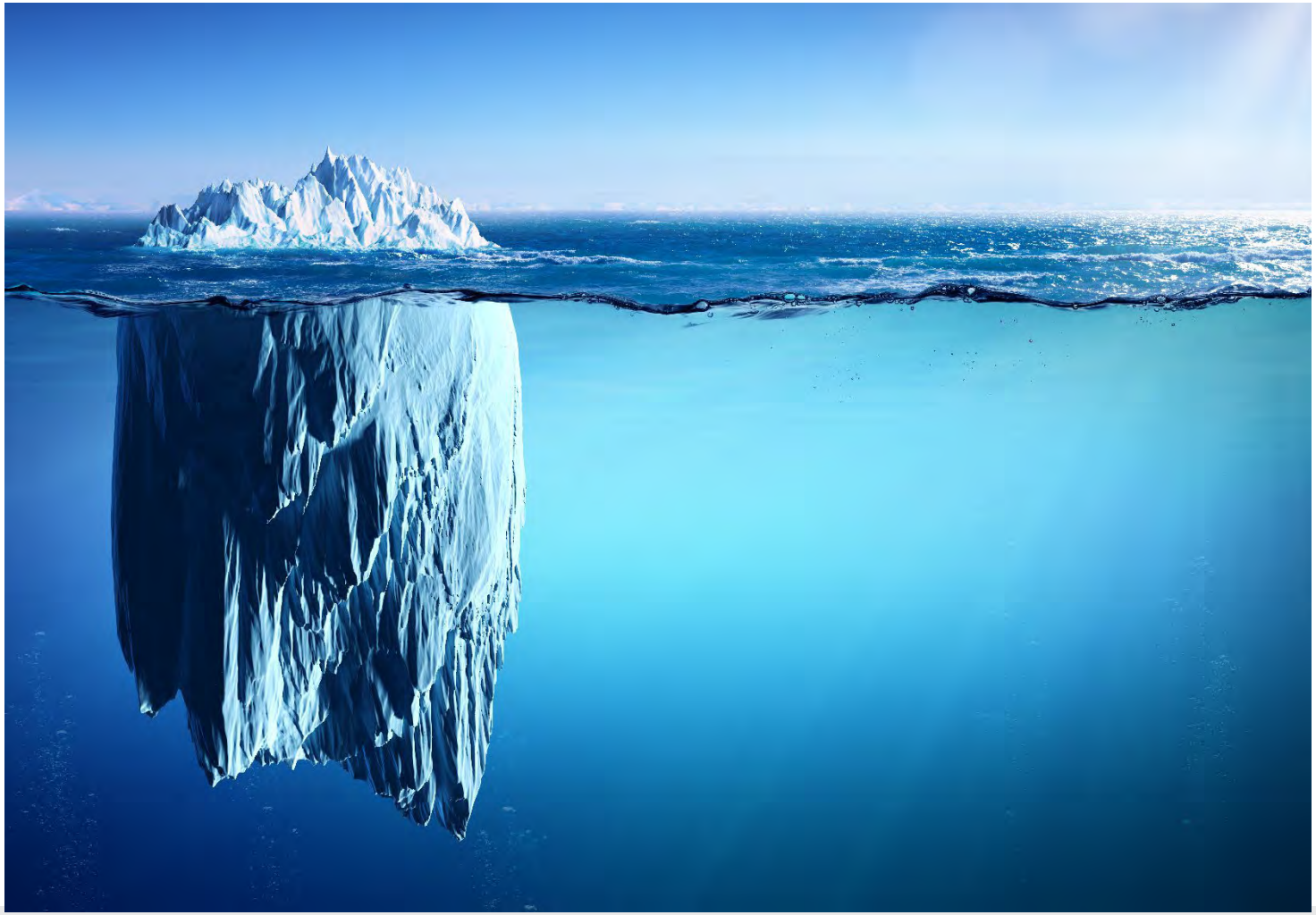
Examples of partner activities

- MPCA sampling environmental media for PFAS
  - Laboratory support, water guidance value development
- MDA sampling for cyanazine, atrazine, and degradates
  - Water guidance values development, health risk index calculation support
- MDH sampling for PFAS in public water supplies
  - Water guidance development using novel methods, laboratory support for analysis of thousands of samples for a suite of 35 PFAS
- MDH/EPA sampling for 600 unregulated contaminants
  - Water guidance development for detected CECs without current guidance

MDH Public Health Laboratory

- One of the first public labs in the US to develop methods to test for CECs such as PFAS.
- Continues to support many long-term CEC testing strategies for Minnesota.
- Continued support will position Minnesota for sustainable monitoring and interventions for CECs.
- While up-front costs are sizeable, an investment in instrumentation will have long-term value for the state.

Where we are



CEC Initiative: Major Achievements

CEC Initiative: Future Planning

CWC Strategic Plan

Support effective, science-based responses to emerging threats or contaminants of emerging concern

PFAS

CEC Initiative: What We Do

- **Provide substantive and hard-hitting comments** to the EPA on their plans for PFAS regulation
- **Work with EPA research staff** to gather and use new toxicity and exposure information available from big data
- **Develop new methods for PFAS** with little or no toxicity information publicly available
- **Collaborate with partners:**
  - to provide risk assessment context for impacted communities (MDH Drinking Water Protection)
  - on PFAS risk assessments for waters used for drinking (MPCA and other state agencies)

Environmental Justice and Health Equity

- Maximize existing resources
- Share what we learn

Clean Water Funds for CEC Initiative

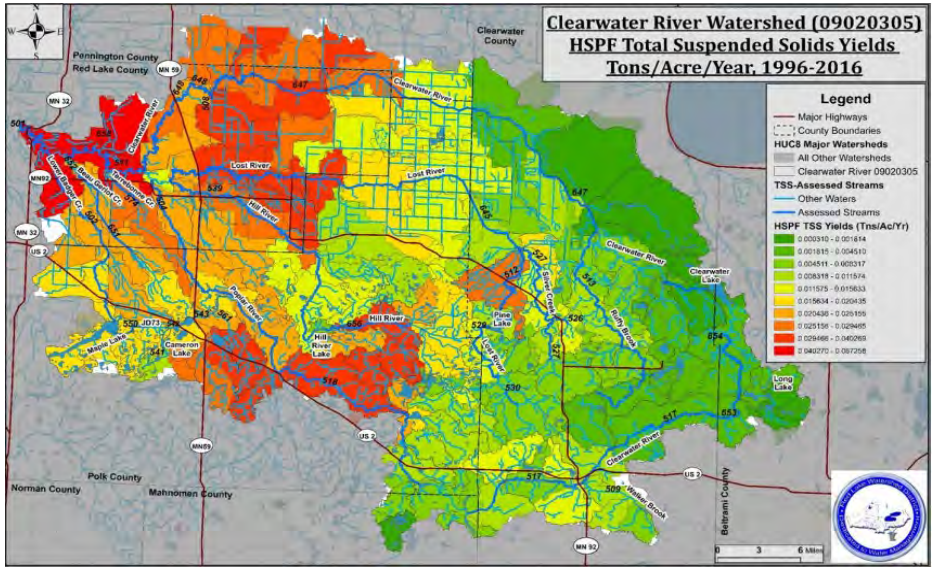
	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY 20-21	FY 22-23	FY24-25	Historical Total
Clean Water Funds	$1.34M	$2.04M	$2.30M	$2.20M	$2.20M	$3.40M	$2.40M	*Increase*	$15.88M
FTEs (state agency staff funded by CWF)	3	6.8	9.5	11	8.5	6.9	6.9	-	-
Dollars Passed Through	$255,500	$300,000	$346,915	$63,900	$142,288	$49,445	-	-	$1.16M

WRAPS and TMDL Development, MPCA

Glenn Skuta | Director, Watershed Division
Minnesota Pollution Control Agency

Watershed Restoration and Protection Strategies
Total Maximum Daily Loads

- Reports that provide the science for understanding the state of our watersheds.
- “Blueprints” for local water planning decisions on prioritized and targeted implementation.



TMDLs and WRAPS – CWC Goal 3

TMDLs – for impaired waters

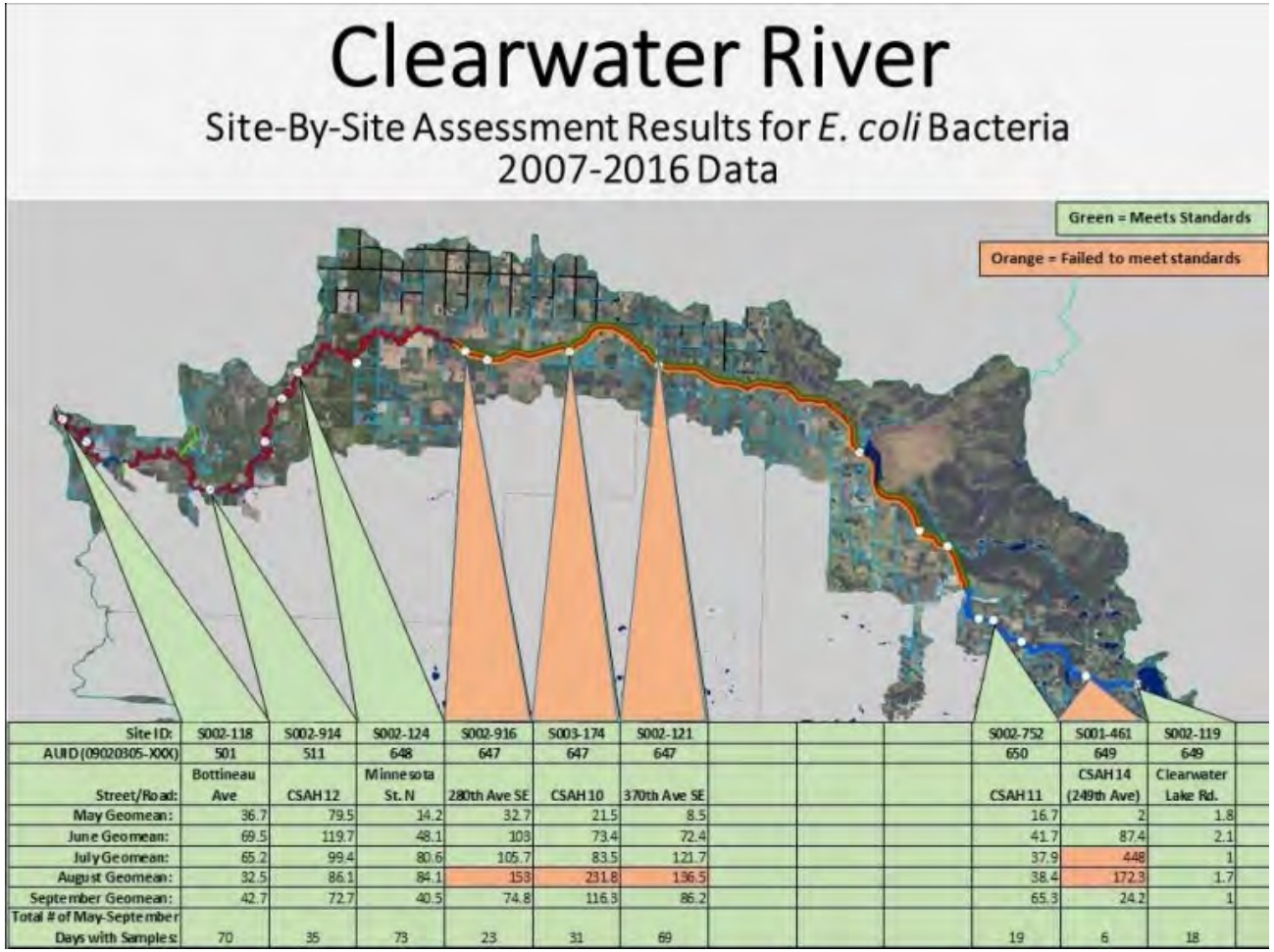
- Required by federal CWA
- Set pollutant load reductions to impaired waters
- Accurate permit limits
- Call for pollutant reductions from unregulated sources

WRAPS – for all waters

- Required by state CWLA
- Incorporate TMDL findings for impaired waters, and strategies for impaired waters not addressed by TMDLs
- Strategies to protect waters that are in good condition

WRAPS and TMDL Reports Entail a Lot of Work!

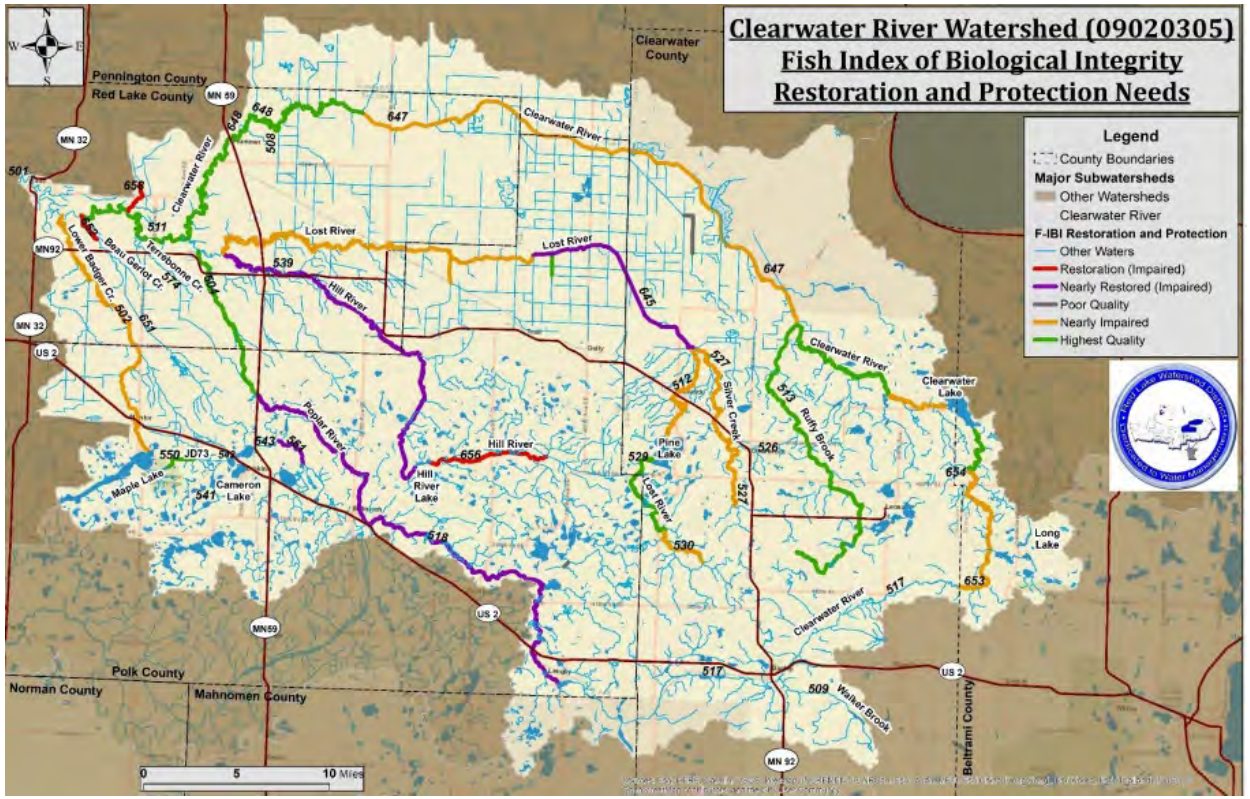
- Field work to gather data and information
- Identification of stressors on fish and aquatic invertebrates
- Watershed computer modeling scenarios, for targeting strategies
- TMDL calculations and development
- Strategy development and reports
- Partner and public participation

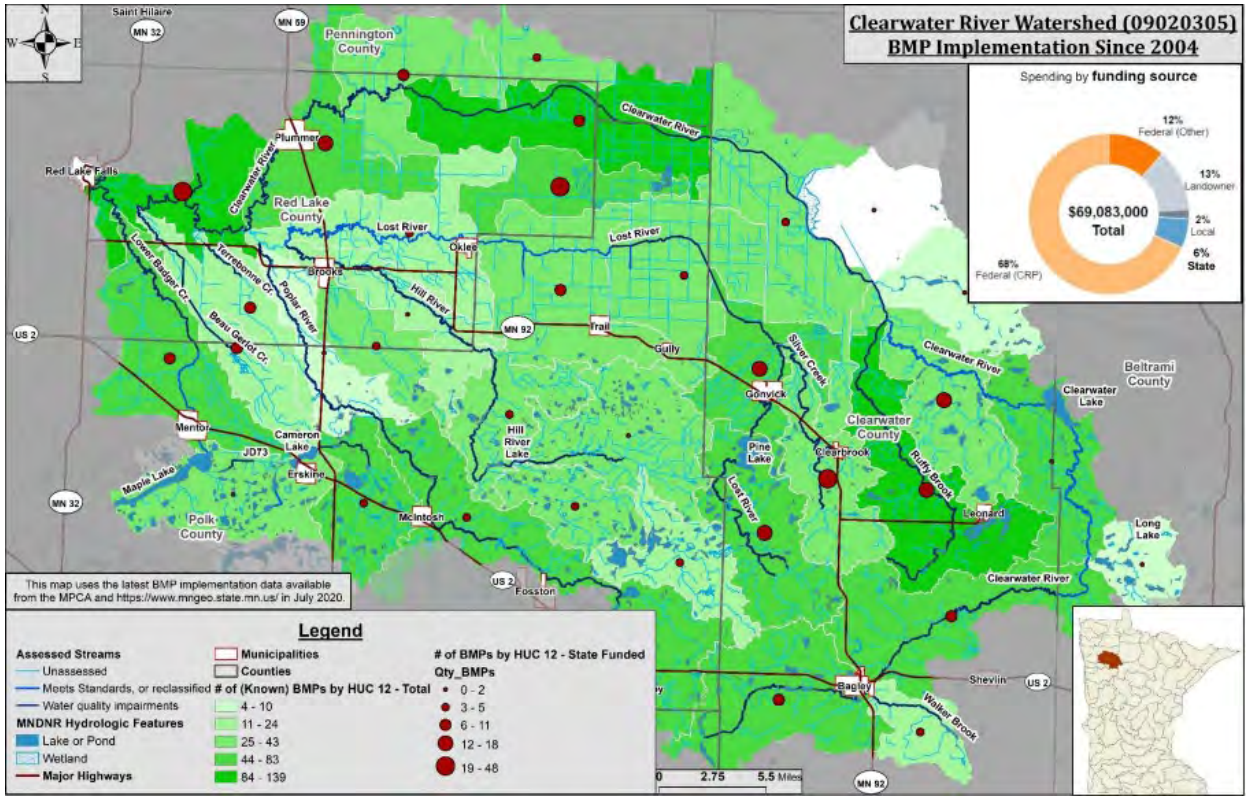


Site ID:	S002-118	S002-914	S002-124	S002-916	S003-174	S002-121				S002-752	S001-461	S002-119	
AUID (09020305-XXX)	501	511	648	647	647	647				650	649	649	
Street/Road:	Bottineau Ave	CSAH 12	Minnesota St. N	280th Ave SE	CSAH 10	370th Ave SE				CSAH 11	CSAH 14 (249th Ave)	Clearwater Lake Rd.	
May Geomean:	36.7	79.5	14.2	32.7	21.5	8.5				16.7	2	1.8	
June Geomean:	69.5	119.7	48.1	103	73.4	72.4				41.7	87.4	2.1	
July Geomean:	65.2	99.4	80.6	105.7	83.5	121.7				37.9	448	1	
August Geomean:	32.5	86.1	84.1	153	231.8	136.5				38.4	172.3	1.7	
September Geomean:	42.7	72.7	40.5	74.8	116.3	86.2				65.3	24.2	1	
Total # of May-September Days with Samples:	70	35	73	23	31	69				19	6	18	

Focus on Results

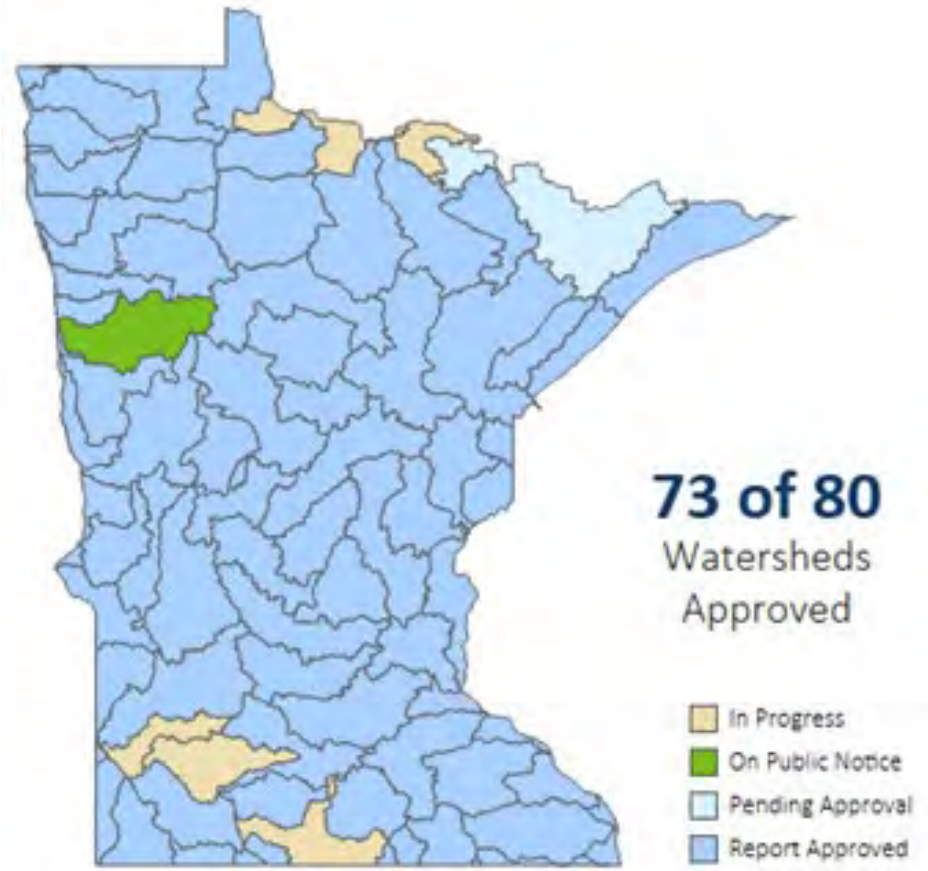
- Identify the Nearly/Barely Impaired Waters
- Track Progress



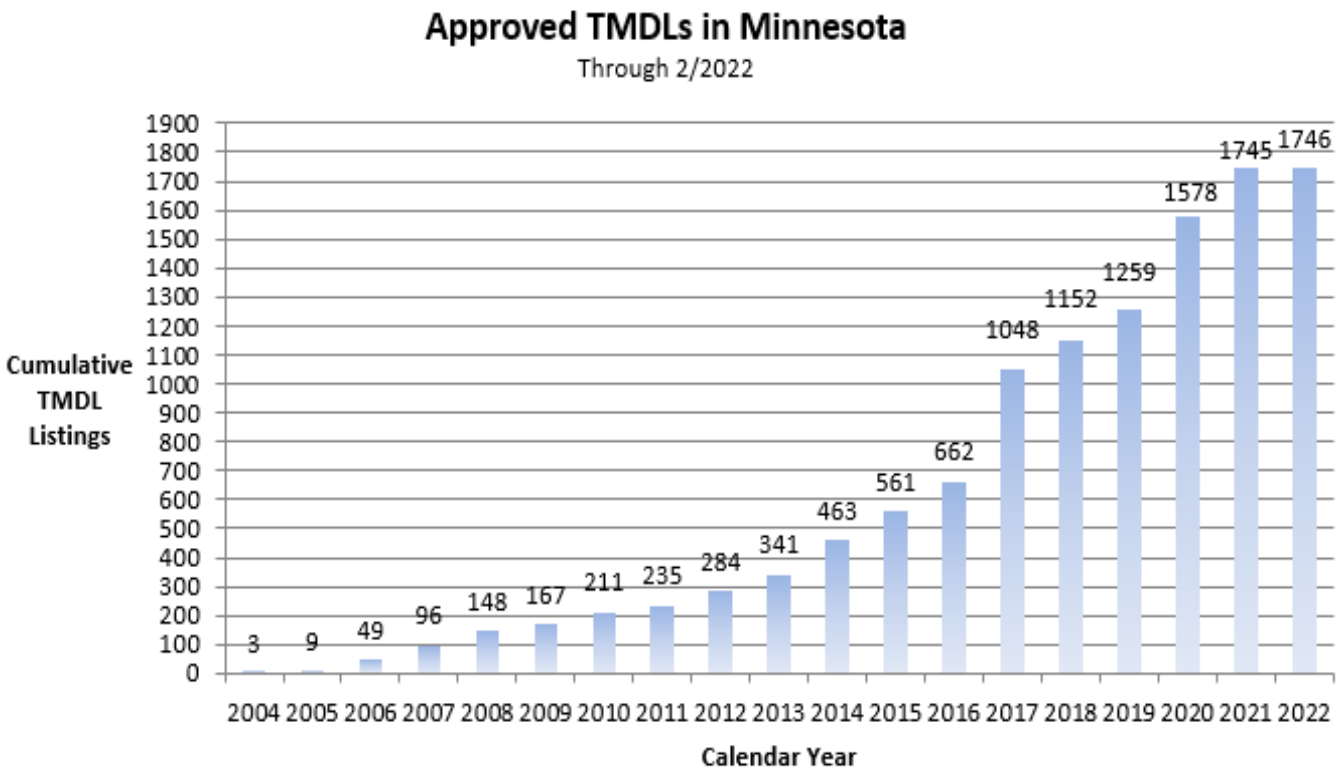


WRAPS Progress

- Up by 21 watersheds from 2 years ago
- On track to complete all by statutory deadline of June 2023
- Updating watersheds on an as-needed basis, in coordination with LGUs
  - 13 underway, 2 deferred, 22 in development



TMDL Progress



- Up by 242 from 2 years ago
- Several more at US EPA now for final approval

We Are Water

- Now fully included in the MPCA WRAPS/TMDL budget request
- Partnership with the MN Humanities Center and Local Partners

WRAPS and TMDLs

	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23
Clean Water Funds	$18M	$18.8M	$18.8M	$20.2M	$19M	$15.1M	$13.45M
FTEs (state agency staff CWF funded)	34	31.8	31.5	35.2	35.4	34.1	~35

- Reduced >1/3 from peak appropriation
- Reducing slightly in FY24-25

Watershed Restoration and Protection Strategies

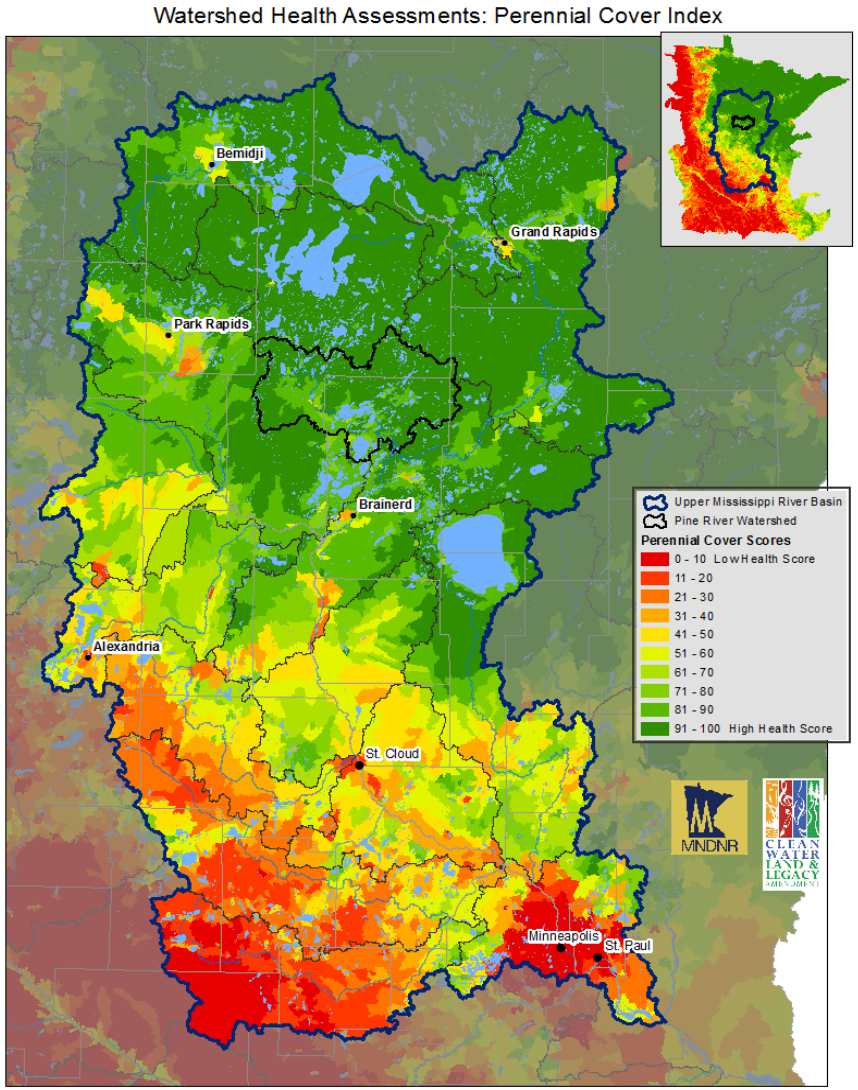
Jason Moeckel – Section Manager

Department of Natural Resources

DNR WRAPS Programs

- Watershed Health Assessment Framework
- Hydrologic Analysis – Characterization and Strategy Development
- Channel erosion and sediment
- Culvert inventory and assessment
- Support for project identification and planning

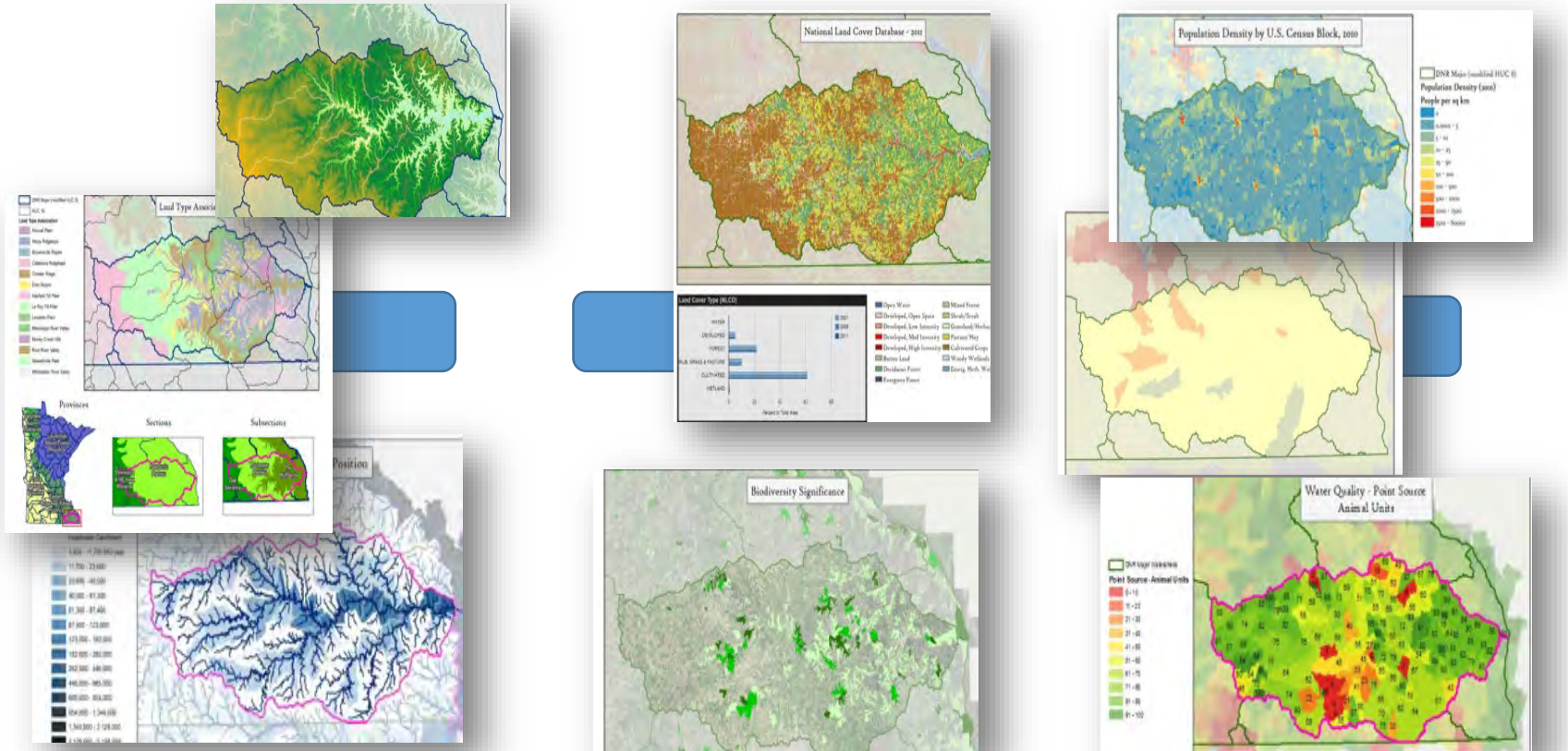
Water Resource Characterization & Problem Investigation



Watershed Health Assessment Framework (WHAF)

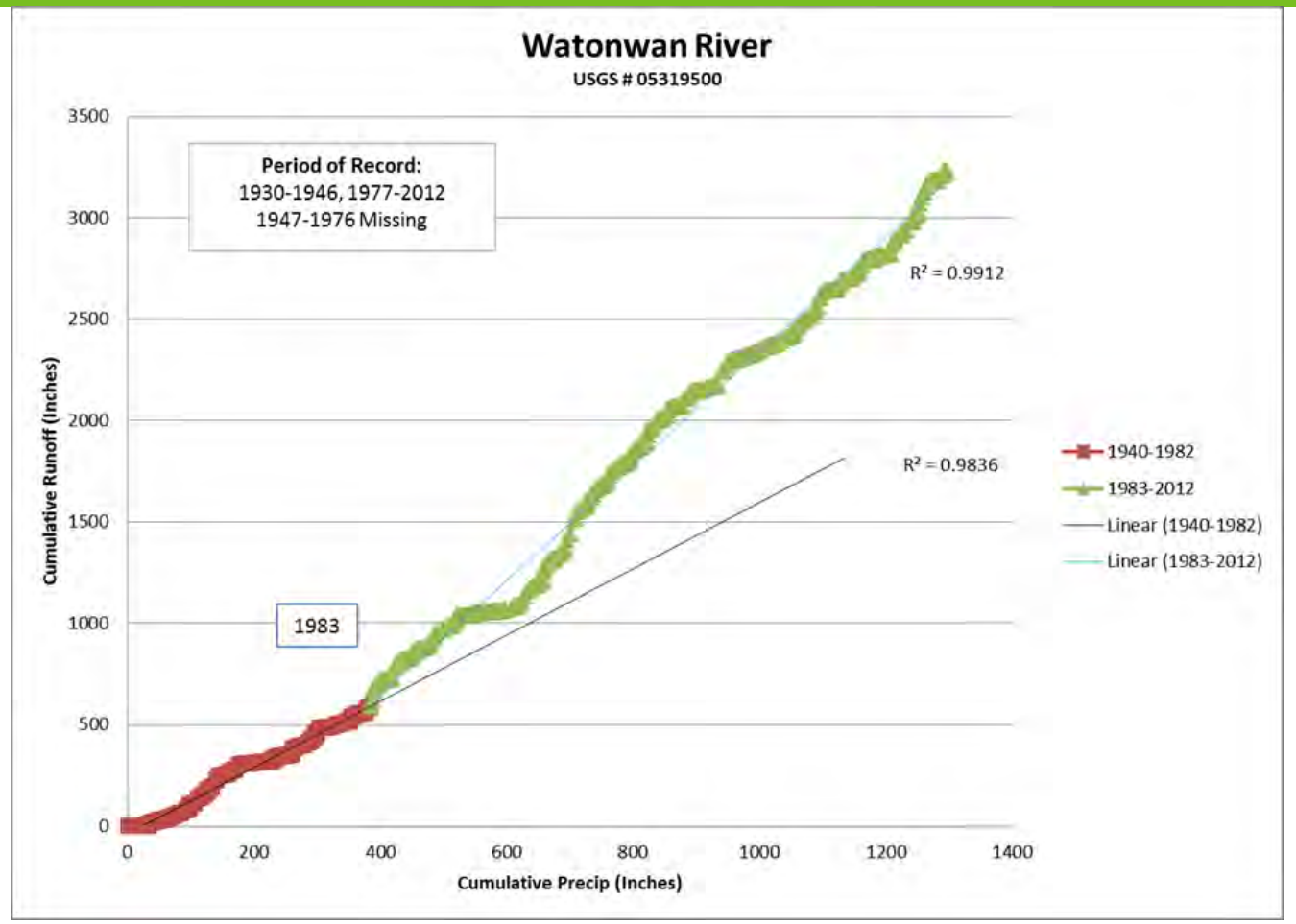
- Watershed health scores
- Watershed characterization reports
- Dynamic mapping at multiple watershed scales

Water Resource Characterization & Problem investigation



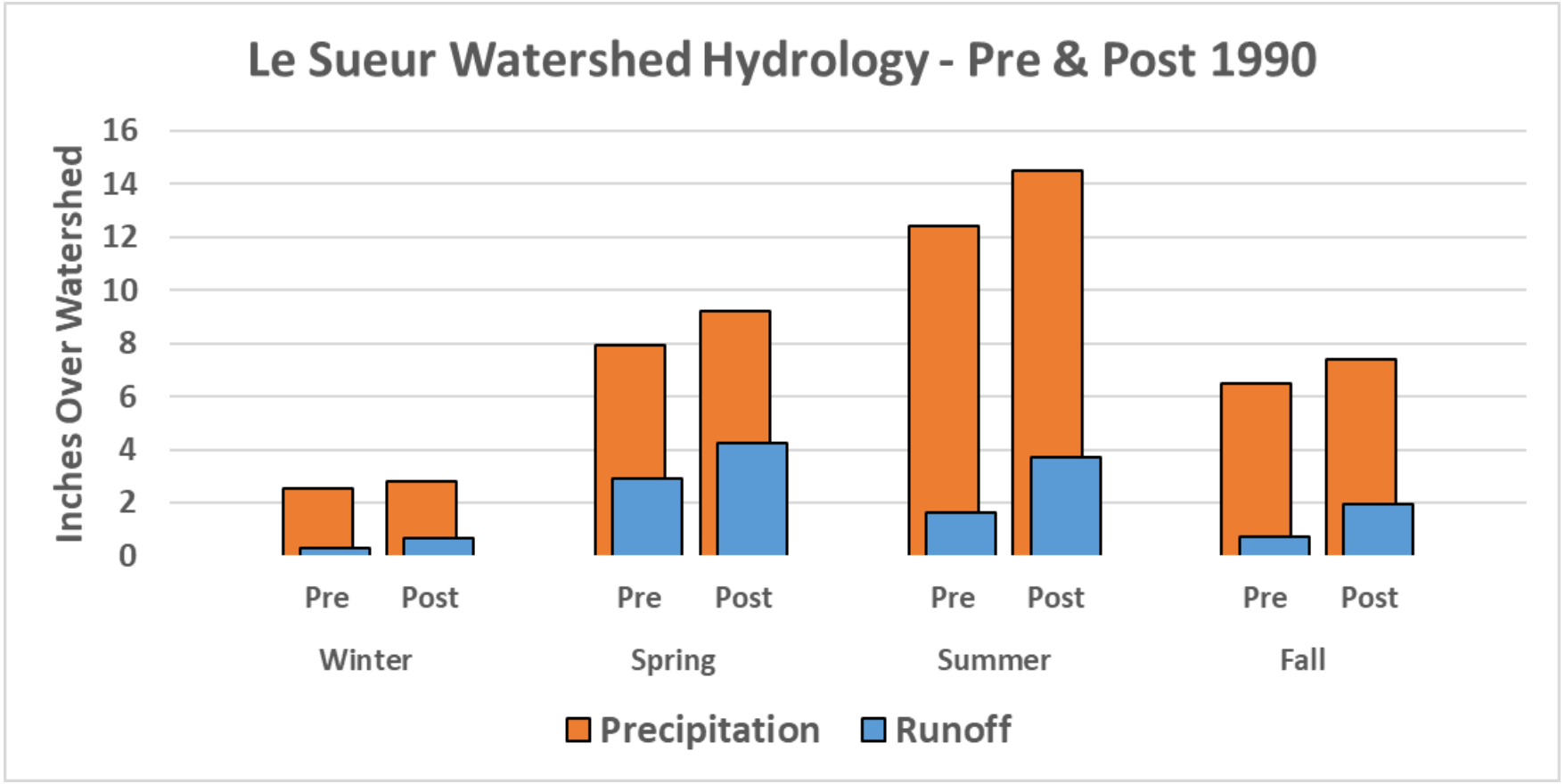
Watershed Health Assessment Framework

Water Resource Characterization & Problem investigation



Hydrology data and analysis to support MPCA assessments

Water Resource Characterization & Problem investigation



Hydrology data and analysis to support MPCA assessments

Water Resource Characterization & Problem Investigation

- Stream geomorphology data and analysis that support MPCA assessments
- Characterization based on field data supports identifying the right strategies and prioritization of implementation efforts

Sediment Budget - Whitewater River Watershed

Major Fork	Minor5 Sub-watershed	Area (mi²)	Hydrologic Processes: Flow-related Sediment (tons/yr)	Roads and Trails: Road Index (tons/yr)	Hillslope Processes: Surface Erosion (tons/yr)	Channel Processes: Bank Erosion (tons/yr)	Total Introduced Sediment Yield (tons/year)	Erosion Rate (tons/mi²)	Aggradation +/ Degradation - (tons/yr)
Mainstem	40012	17	2674	79	3,680	21,020	24,779	1,416	
	40013	15		24	2,389	7,112	9,525	624	
	40015	17	2148	257	3,253	2,000	5,510	332	
	40016	21		18	4,019	44,550	48,587	2,297	
	Sub Total	**70**	**119,855**	**378**	**13,341**	**74,682**	**88,401**	**1,254**	**-31,454**
Middle Fork	40018	6		77	1,491	3,910	5,478	947	
	40019	15		230	2,361	1,156	3,747	252	
	40020	8	178	17	1,479	163	1,659	216	
	40038	15	890	238	2,302	3,737	6,277	428	
	40040	10	529	94	1,975	783	2,852	274	
	Sub Total	**53**	**3,975**	**656**	**9,608**	**9,749**	**20,013**	**375**	**16,038**
North Fork	40017	12		52	2,057	8,778	10,887	886	
	40031	24	1,704	1,057	3,477	1,190	5,724	238	
	40034	20		383	4,246	3,410	8,039	407	
	40035	23	1,709	655	3,240	7,588	11,483	495	
	40037	17	1,091	254	2,041	2,628	4,923	284	
	40042	7	230	116	1,494	916	2,526	349	
	Sub Total	**104**	**10,045**	**2,517**	**16,555**	**24,510**	**43,582**	**419**	**33,537**
South Fork	40021	15		872	2,570	6,946	10,388	672	
	40022	14	324	136	2,106	151	2,393	172	
	40023	6		36	1,340	985	2,361	400	
	40024	19		227	3,568	21,910	25,705	1,361	
	40025	9	188	56	1,358	1,033	2,447	278	
	40028	10	228	116	1,644	579	2,339	237	
	40039	10	256	556	1,113	6,088	7,757	763	
	40041	10	274	371	1,449	3,754	5,574	558	
	Sub Total	**93**	**4,716**	**2,370**	**15,148**	**41,446**	**58,964**	**634**	**54,248**
Total		**321**	**138,591**	**5,921**	**54,652**	**150,387**	**210,960**		**72369**
Grand Mean								**658**	

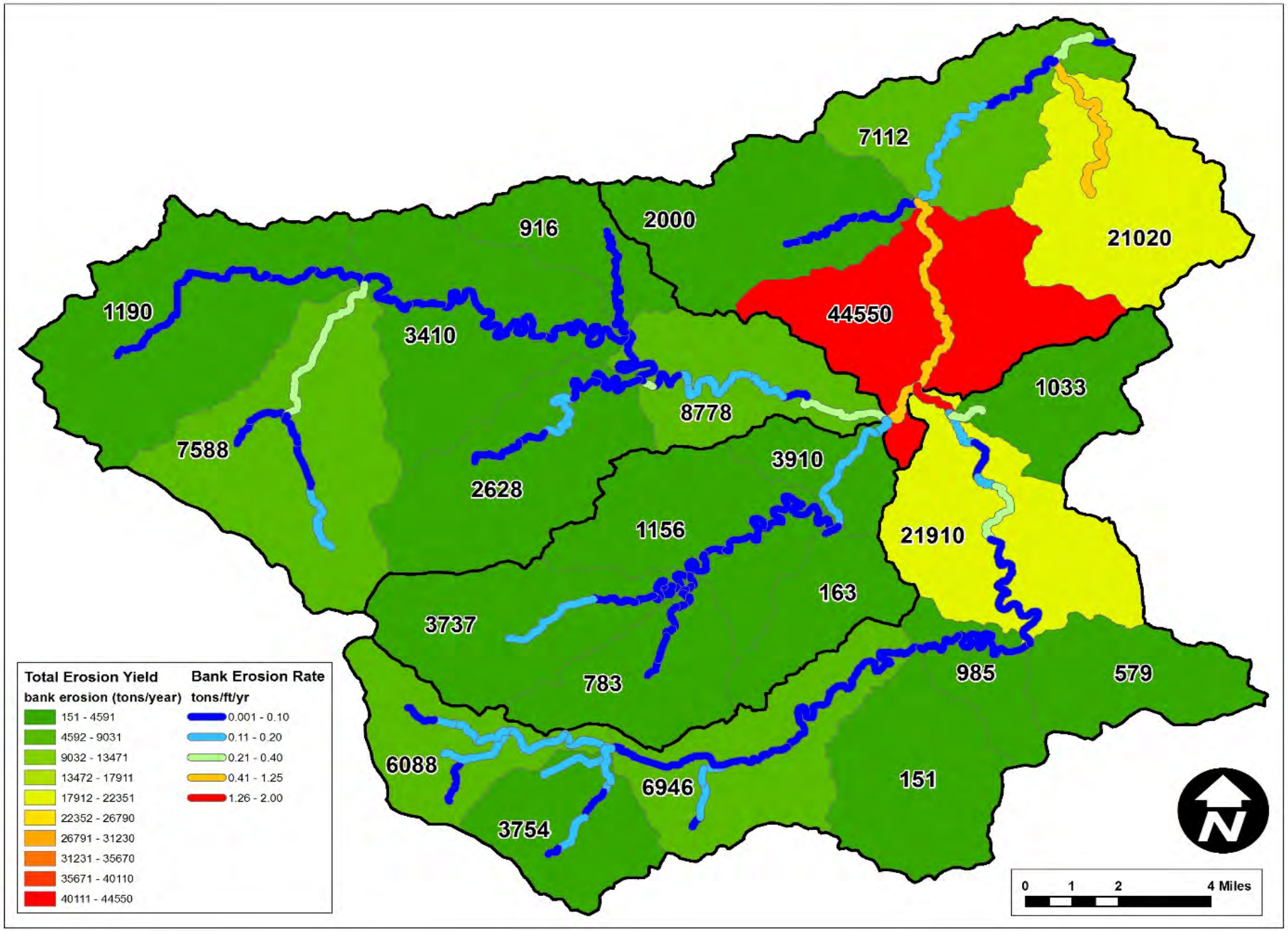
Of the Major River Forks, the South Fork had highest sediment yield = 58,964 tons/yr

Hillslope Processes = 26% of Sediment Load

Channel Processes = 71% of Sediment Load

Total Sediment Load = 210,960 tons/yr

Erosion



Values = Total estimated yield (tons/year) for channel processes in the Whitewater River watershed, by catchment. Bank erosion rate is delineated for stream segments within each river fork.

Stable Stream Channel

- A stable, well buffered channel in South Fork of the Whitewater
- Very low erosion rates, very low contribution to sediment load

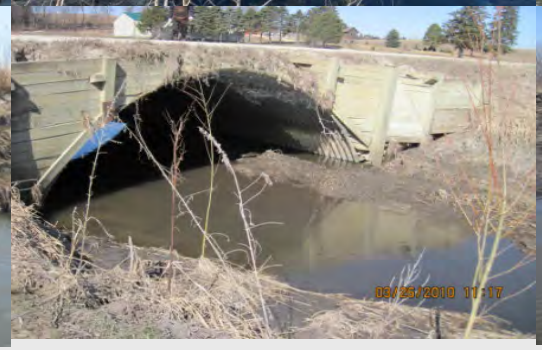
Whitewater River – culvert inventory

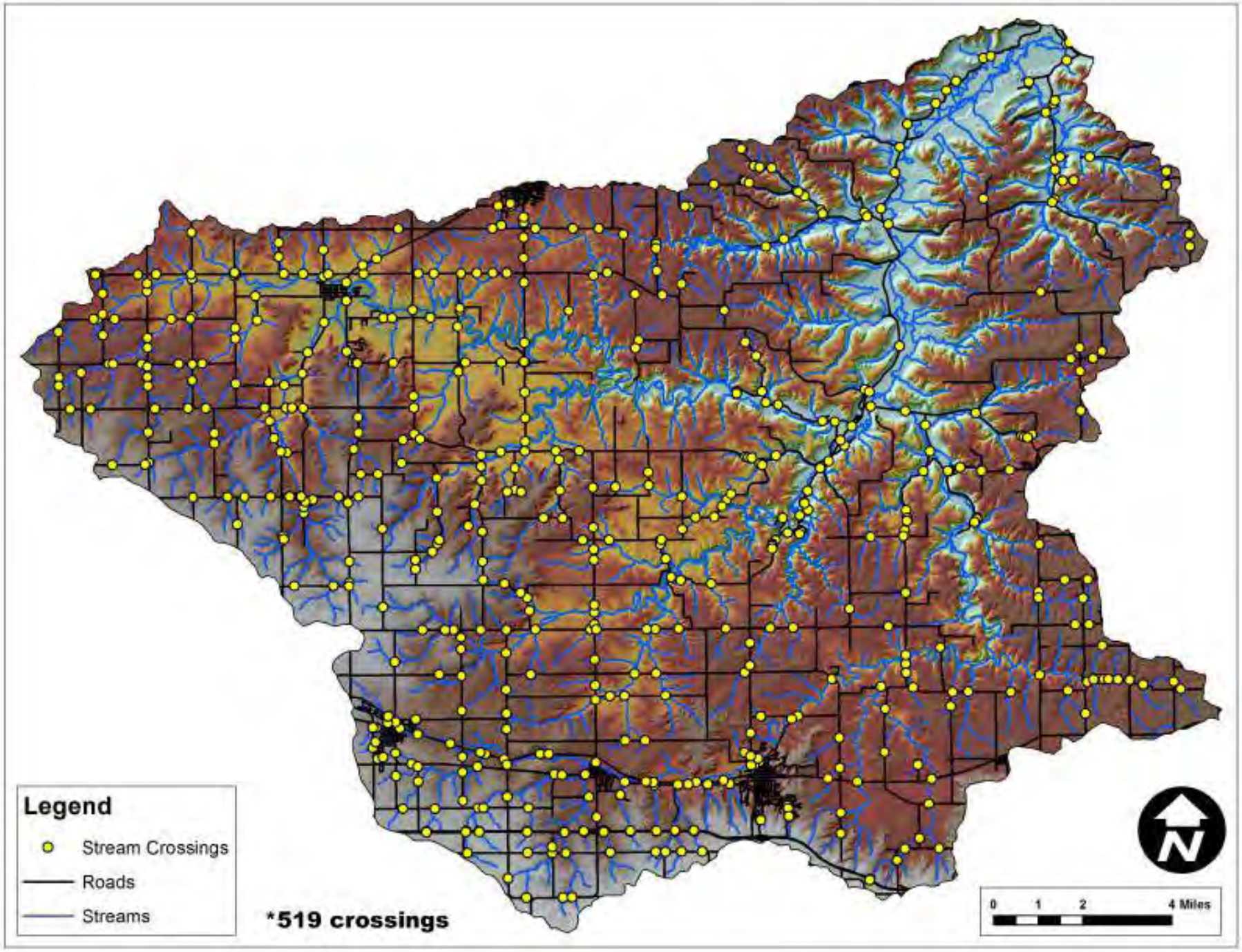








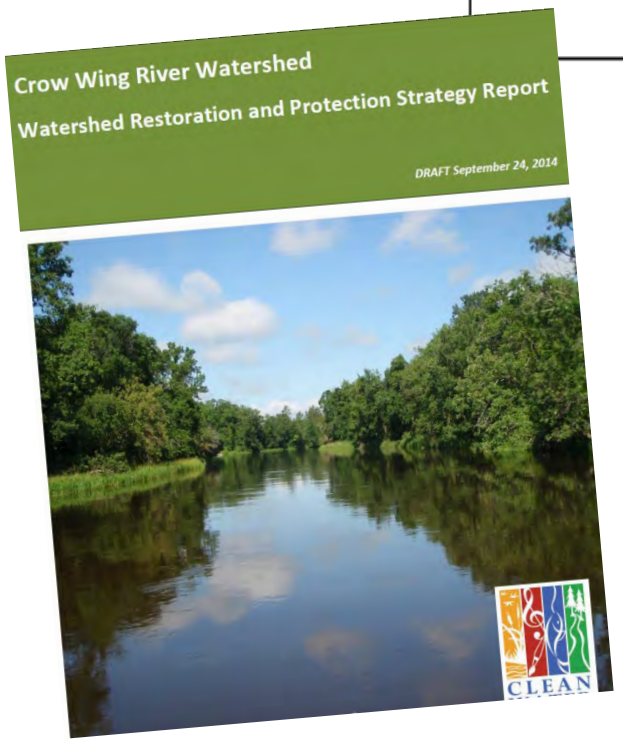





519 Stream crossings in the Whitewater River watershed

RESTORATION & PROTECTION STRATEGY DEVELOPMENT

Designated Trout Waters	High Value & Sensitive Water Resources	DNR Land Resource	Area of Biodiversity & Significance	Current or Future Changes, Pressures & Risks to condition & quality
	Mantrap Lake	Paul Bunyan State Forest	* Tulibee in Buck, Bad Axe, Mantrap * Musky in Mantrap, Bad Axe *Wild Rice in Mantrap & Sand Creek	*Shoreline Development - __% Change *Currently under 75% Upland Protected from landuse conversion - 47% protected including all upstream
	Big Sand Lake	Bottle Lake AMA	* Tulibee in Big Sand, Emma, Upper and Lower Bottle *Wild Rice in Upper & Lower Bottle	*Shoreline Development - __% Change *Currently under 75% Upland Protected from landuse conversion - 48% protected including all upstream



Assistance with identifying strategies

Watershed Restoration and Protection Strategies

	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23
Clean Water Funds	$2.1M	$3.5M	$3.7M	$3.88M	$3.772M	$3.8M	$3.8M
FTEs (state agency staff funded by CWF)	6	12	18	18.6	17	~17	14.8

Groundwater Restoration and Protection Strategies (GRAPS)

Carrie Raber| GRAPS Coordinator

Minnesota Department of Health

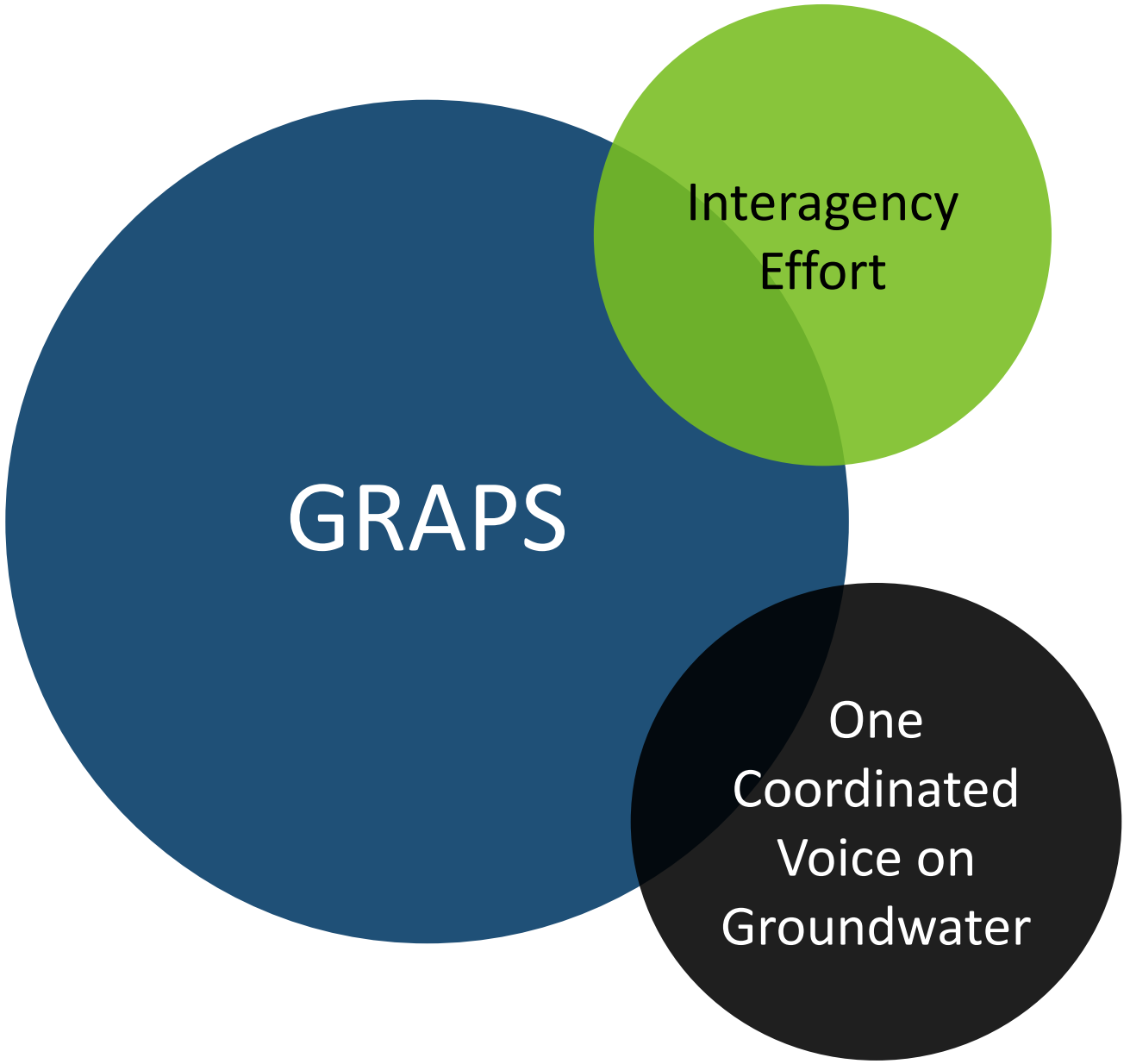
Hawk Creek – Middle Minnesota Watershed (HCMMW)

Groundwater Restoration and Protection Strategies Report

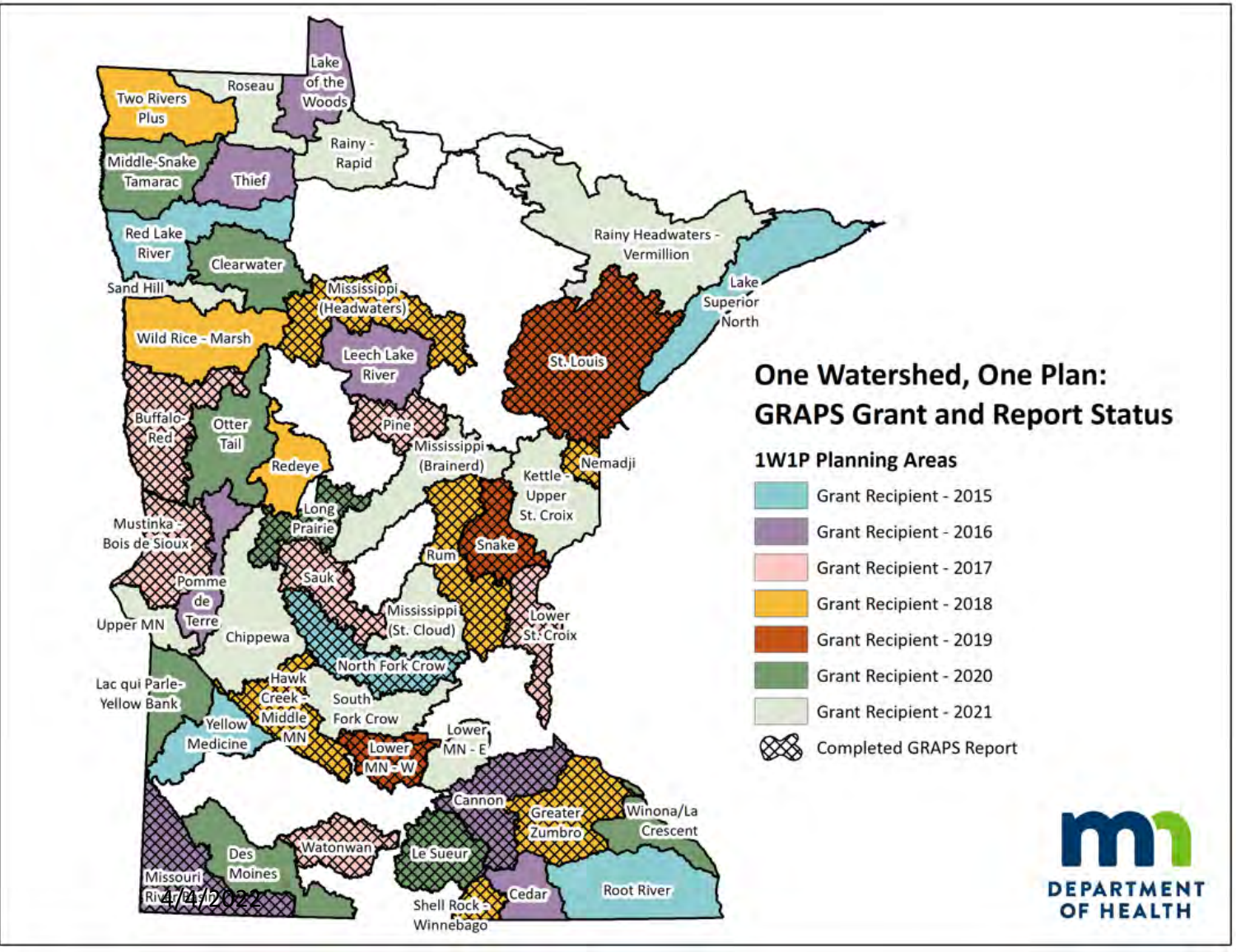
January 2020

GRAPS Report #13

MINNESOTA



GRAPS: Major Achievements



- 21 Completed GRAPS Reports
  - 11 identified for development
- GW data Integrated in WHAF
  - 13 GRAPS specific data layers
- Online GW Modules
- Technical Trainings through BWSR
- Accelerated Implementation Grant (capacity building)
- 3D Geological Watershed Models

Legend

Zumbro River Watershed Boundary

SURFICIAL GLACIAL GEOLOGY

Clay deposits

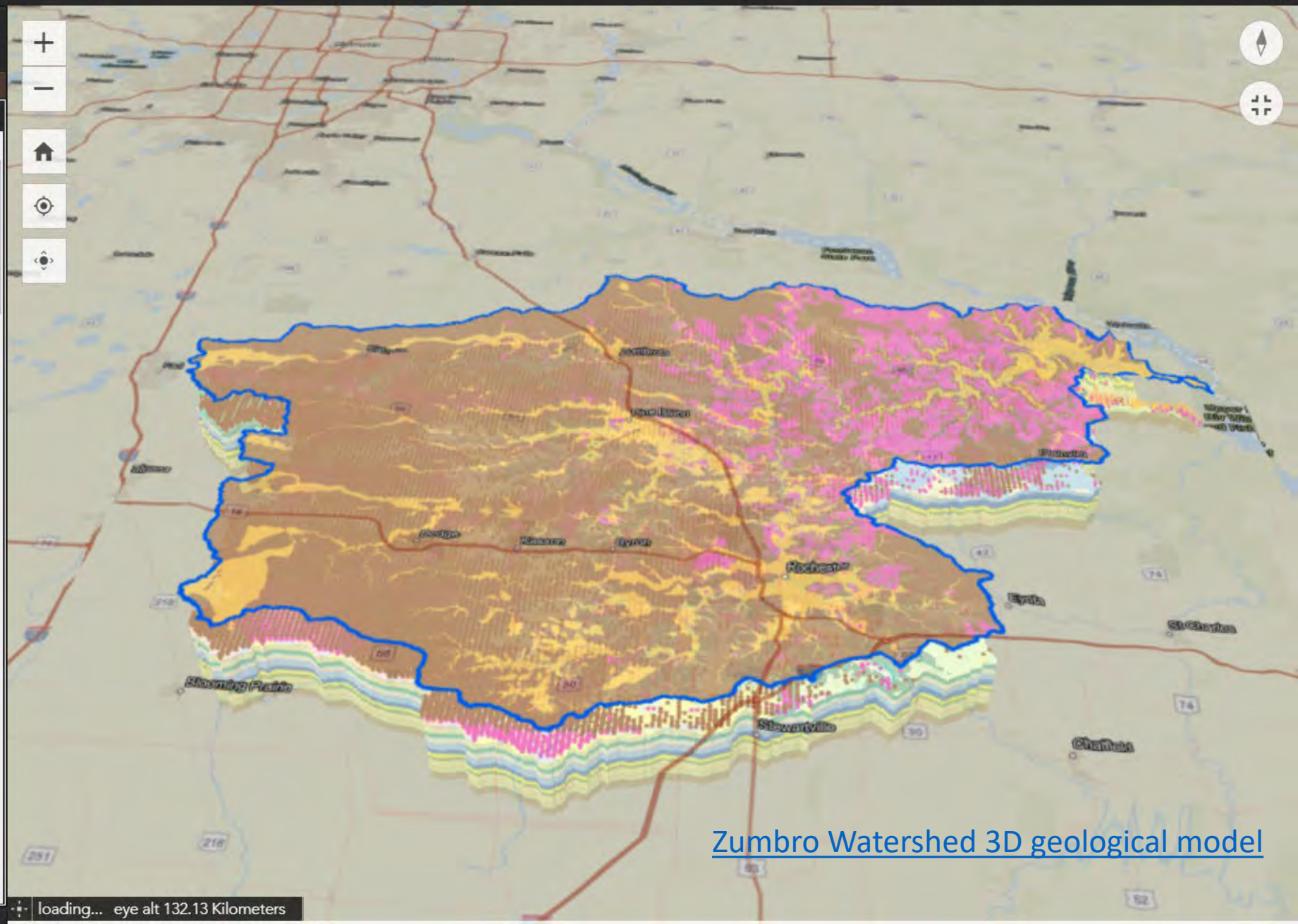
Clay deposits

Mixed (clay+sand) deposits

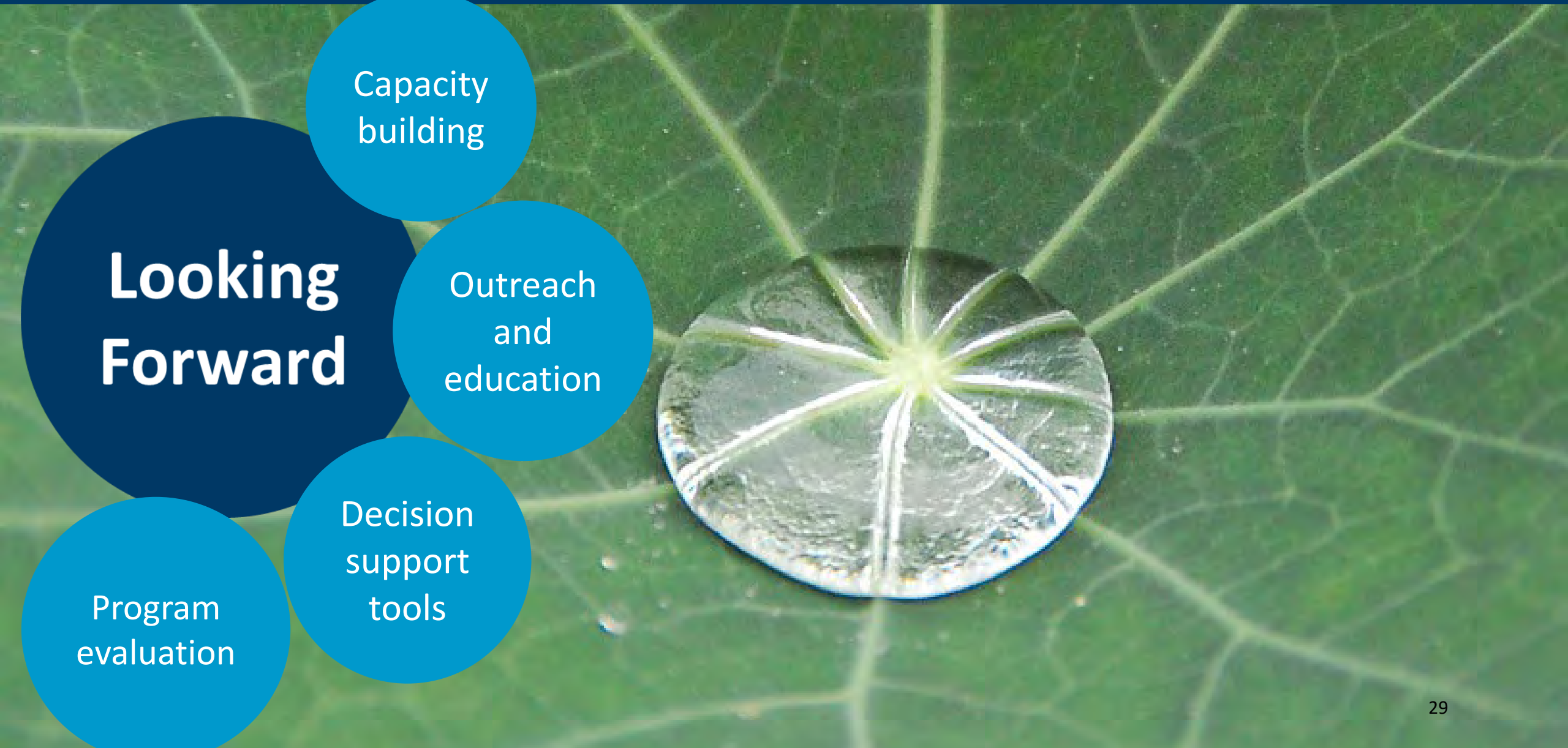
Mixed (clay+sand) deposits

Sand deposits

Sand deposits



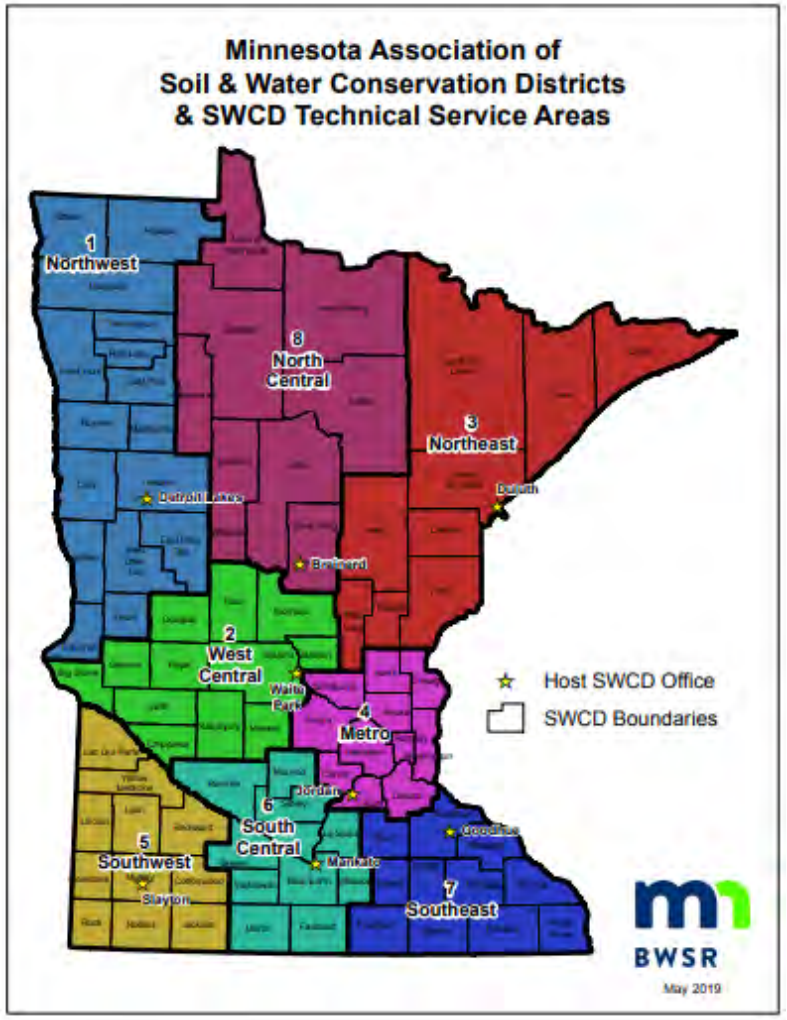
GRAPS: Future Planning



CWC Strategic Plan

Complete GRAPS for all major watersheds engaged in comprehensive watershed planning by 2025

GRAPS New Initiative



3 new FTEs to advance groundwater protection

- SWCD Technical Service Areas (TSAs)
- Pilot in 3 TSA regions
  - Region 5 – Southwest
  - Region 2 – Central Sands
  - Region 7 – Southeast
- Technical specialists reflect regional goals

Clean Water Funds for GRAPS

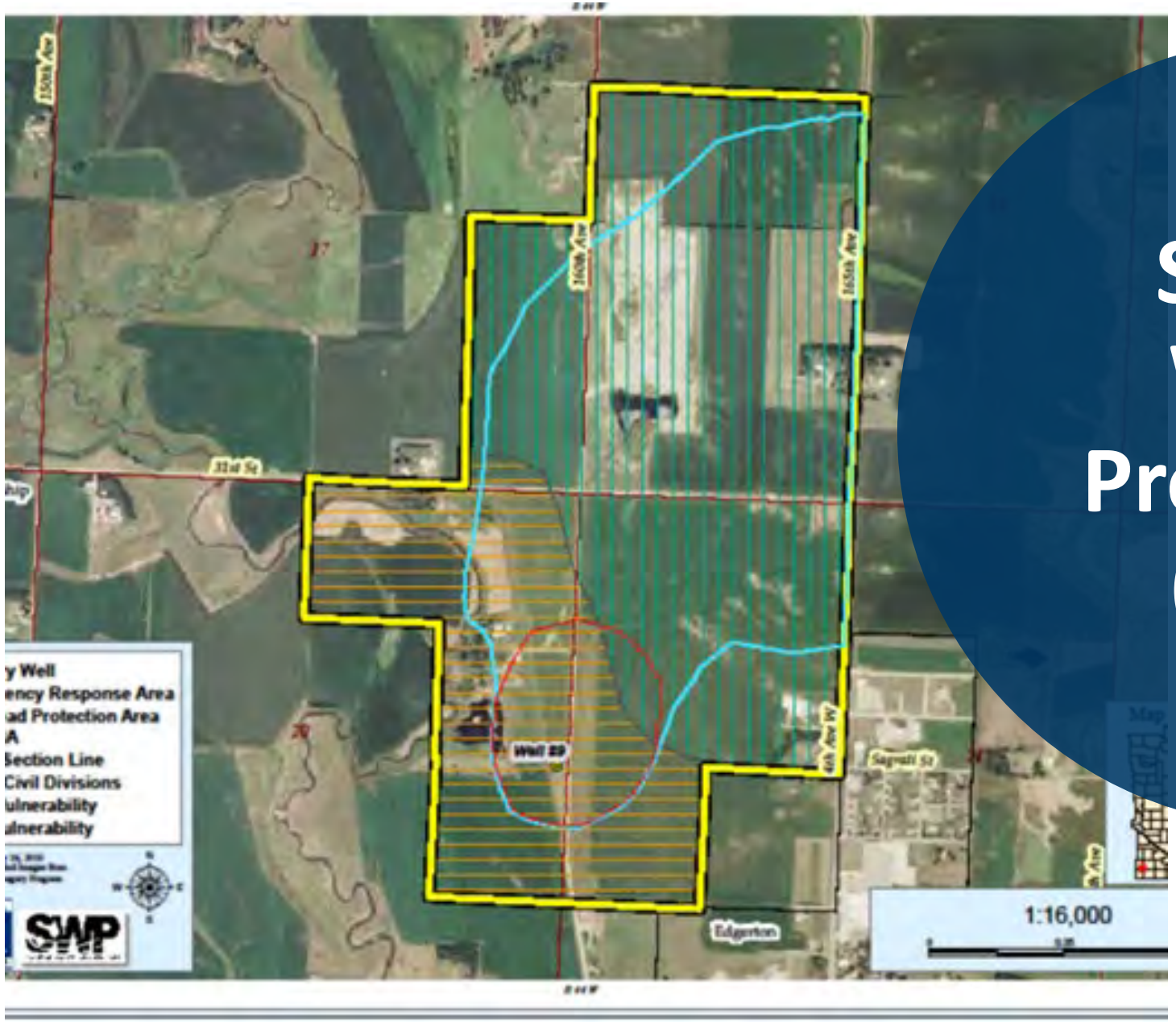
	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25	Historical Total
Clean Water Funds	$0	$0	$300K	$250K	$400K	$1,100K	$1,126K	*Increase*	$3,176K
FTEs (state agency staff funded by CWF)	0	0	0.5	1.0	1.0	1.5	1.5	-	-
Dollars Passed Through	0	0	$40K	$50K	$130K	$505K	$635K*	-	$1,360K

**Amount through February 2022*

Source Water Protection

Steve Robertson| Supervisor, SWP Unit

Minnesota Department of Health



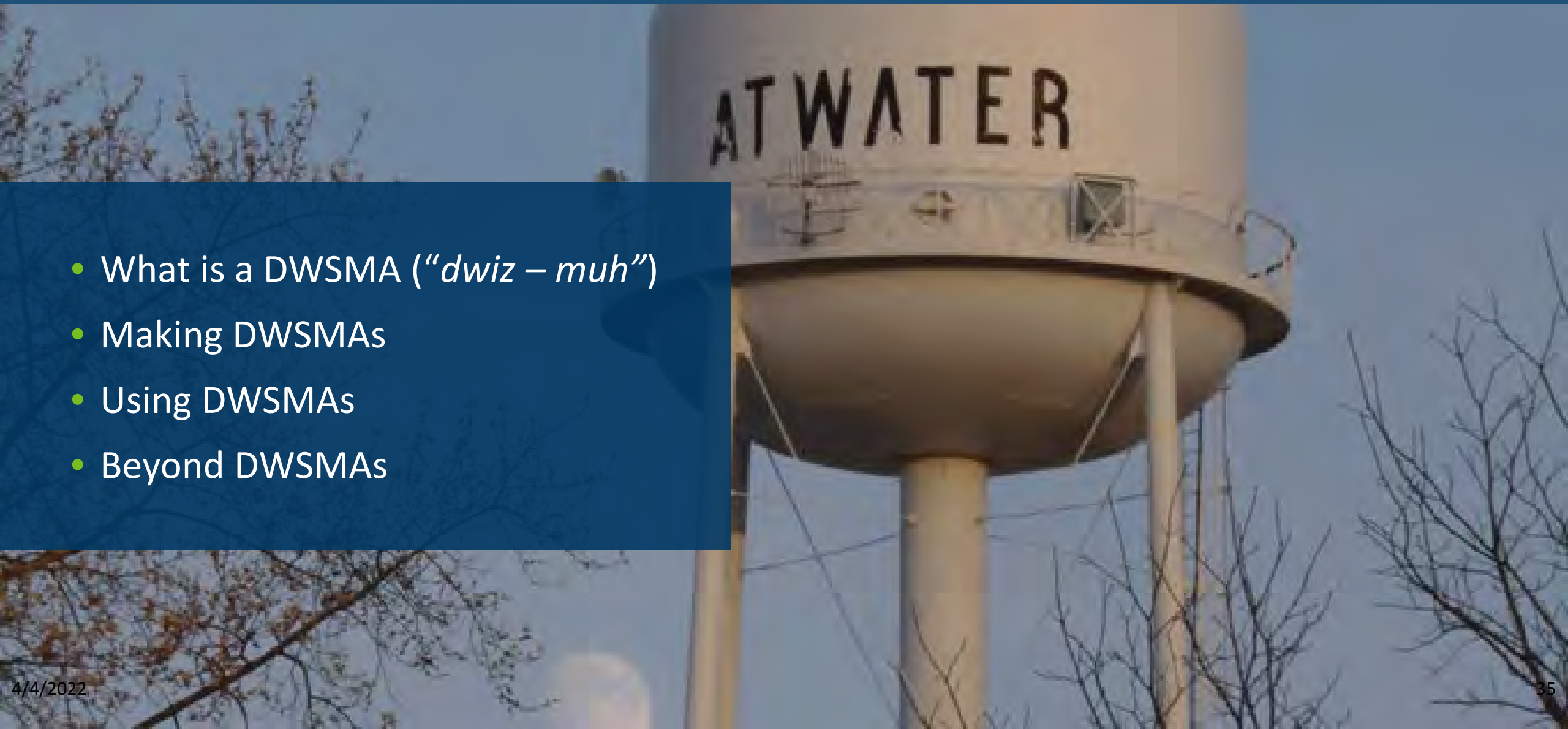
Source Water Protection (SWP)

Planning

Implementation

New initiatives

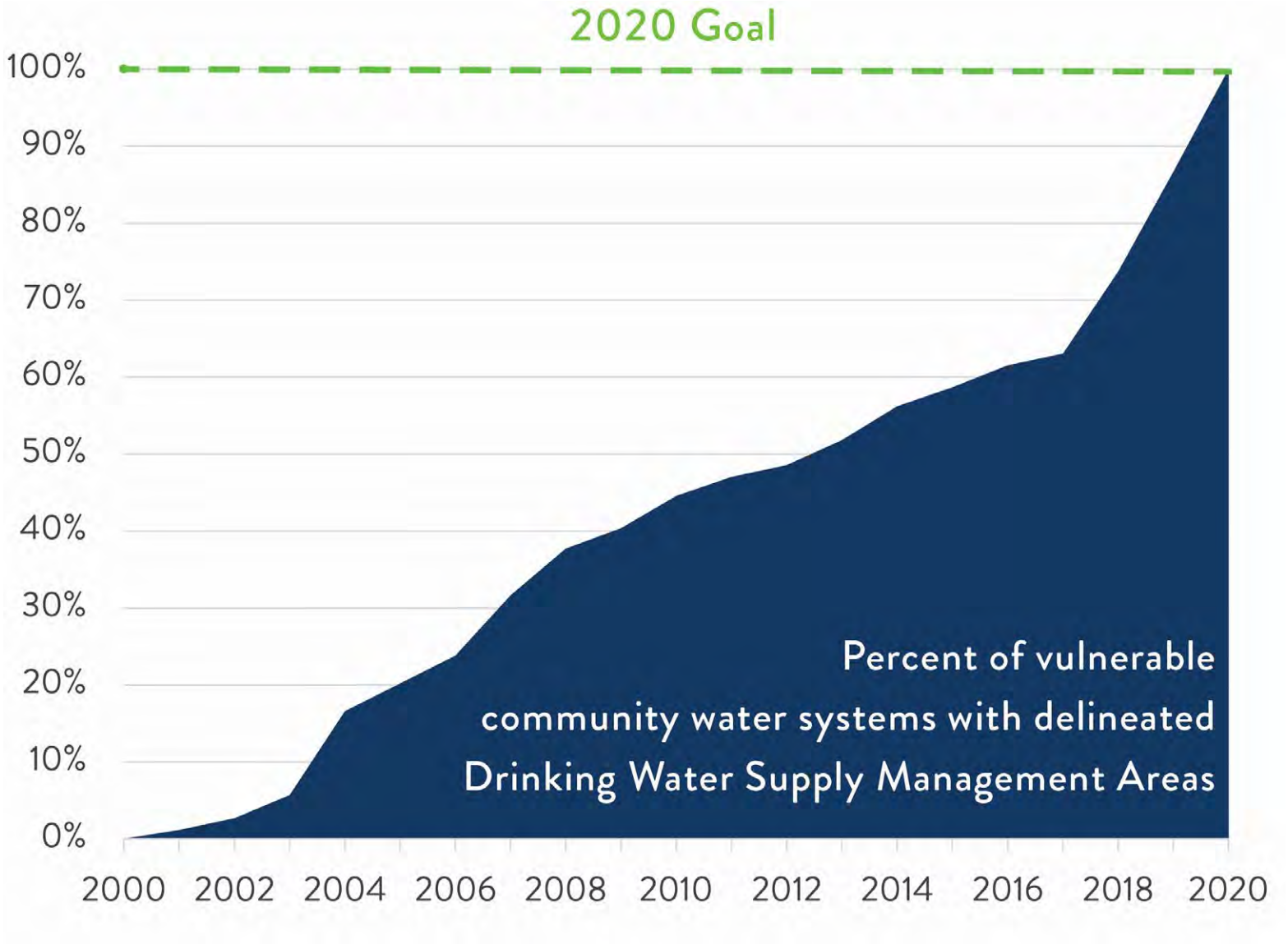
Source Water Protection (SWP) Overview



- What is a DWSMA (“*dwiz – muh*”)
- Making DWSMAs
- Using DWSMAs
- Beyond DWSMAs

Making DWSMAs: SWP Plan Development

Met the 2020 strategic goal for Clean Water Council



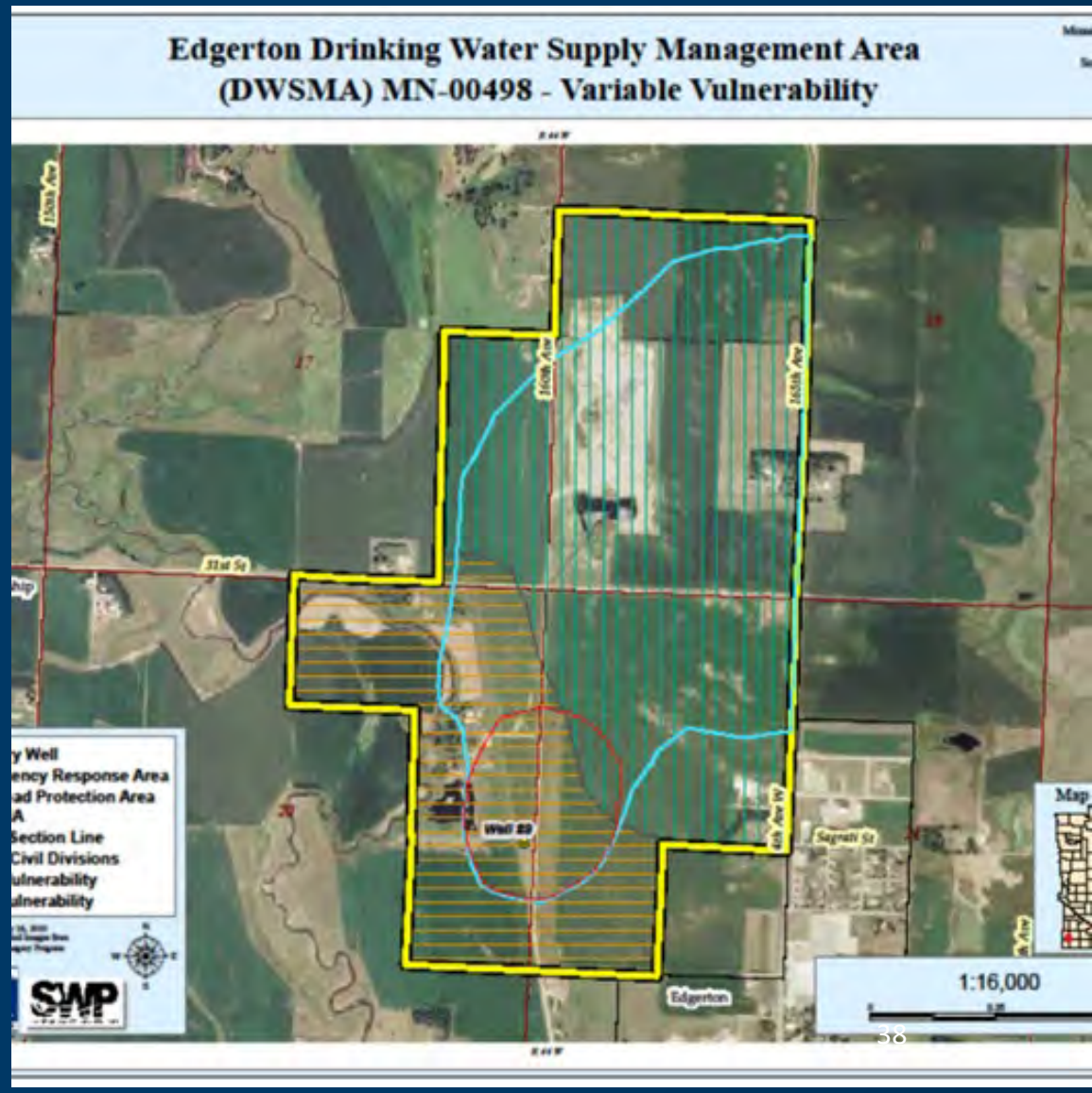
CWC Strategic Plan

Includes Source Water Protection goals for:

- Community water systems using groundwater
- Community water systems using surface water
- Noncommunity water systems
- Grants for implementation
- Protecting vulnerable DWSMAs

Using DWSMAs: Implementing SWP

- System-based plan implementation
- Watershed-based planning
- Technical and financial assistance
- Coordination



Beyond DWSMAs: Future SWP Directions

Watershed-scale activities

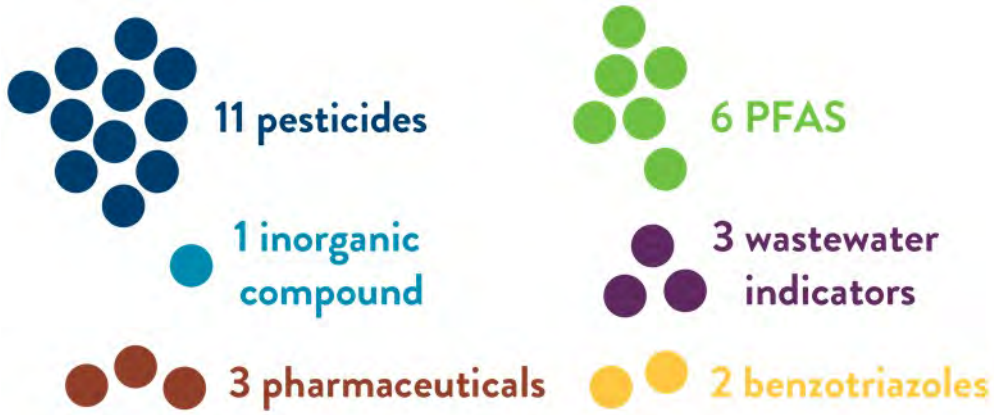
Small systems

Private wells

Ambient monitoring

Drinking Water Ambient Monitoring Program

The Drinking Water Ambient Monitoring Program will sample for unregulated contaminants, such as PFAS



Clean Water Funds for Source Water Protection

	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY 20-21	FY 22-23	FY24-25	Historical Total
Clean Water Funds	$2.4M	$2.83M	$3.23M	$3.8M	$5.47M	$5.49M	$7.8M	*Steady*	$23.2M
FTEs (state agency staff funded by CWF)	6.75	9.5	11	11	13.09	14.09	17.59	-	-
Dollars Passed Through	$0.81M	$0.78M	$0.96M	$1.0M	$1.2M	$1.6M	$0.44M*	-	$6.8M*

** Preliminary data*

Water Management Transition: One Watershed, One Plan

Julie Westerlund | One Watershed, One Plan Coordinator

Board of Water and Soil Resources

Clean Water Council Strategic Plan Goal 3.2

Watershed Management Transition

Watershed Planning

- Science + local values = prioritized and targeted action plans

+

Reliable Funding

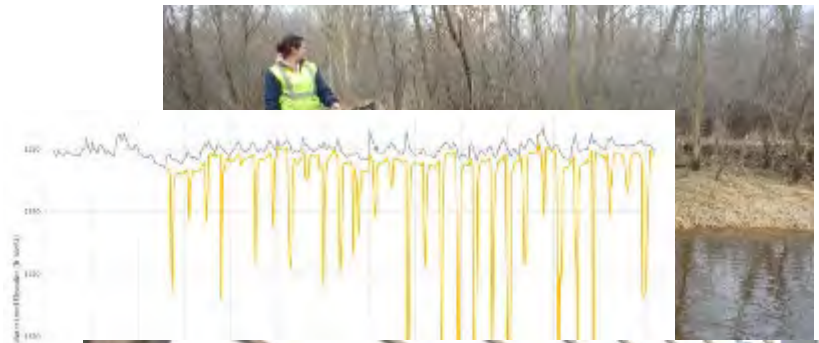
- Stable, reliable, flexible funding for coordinated watershed management

=

Results

- Focused implementation yields tangible results

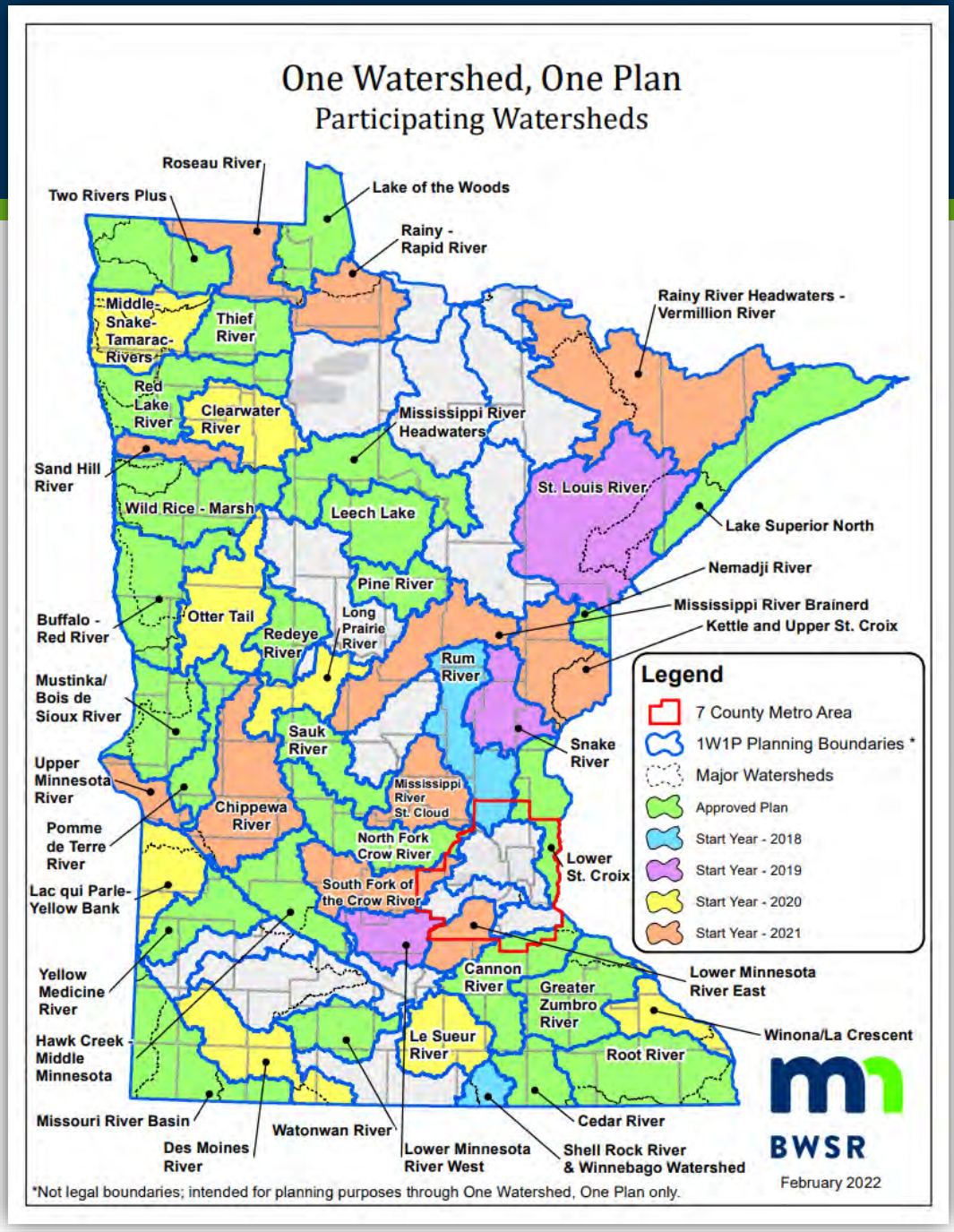
From Data To Action



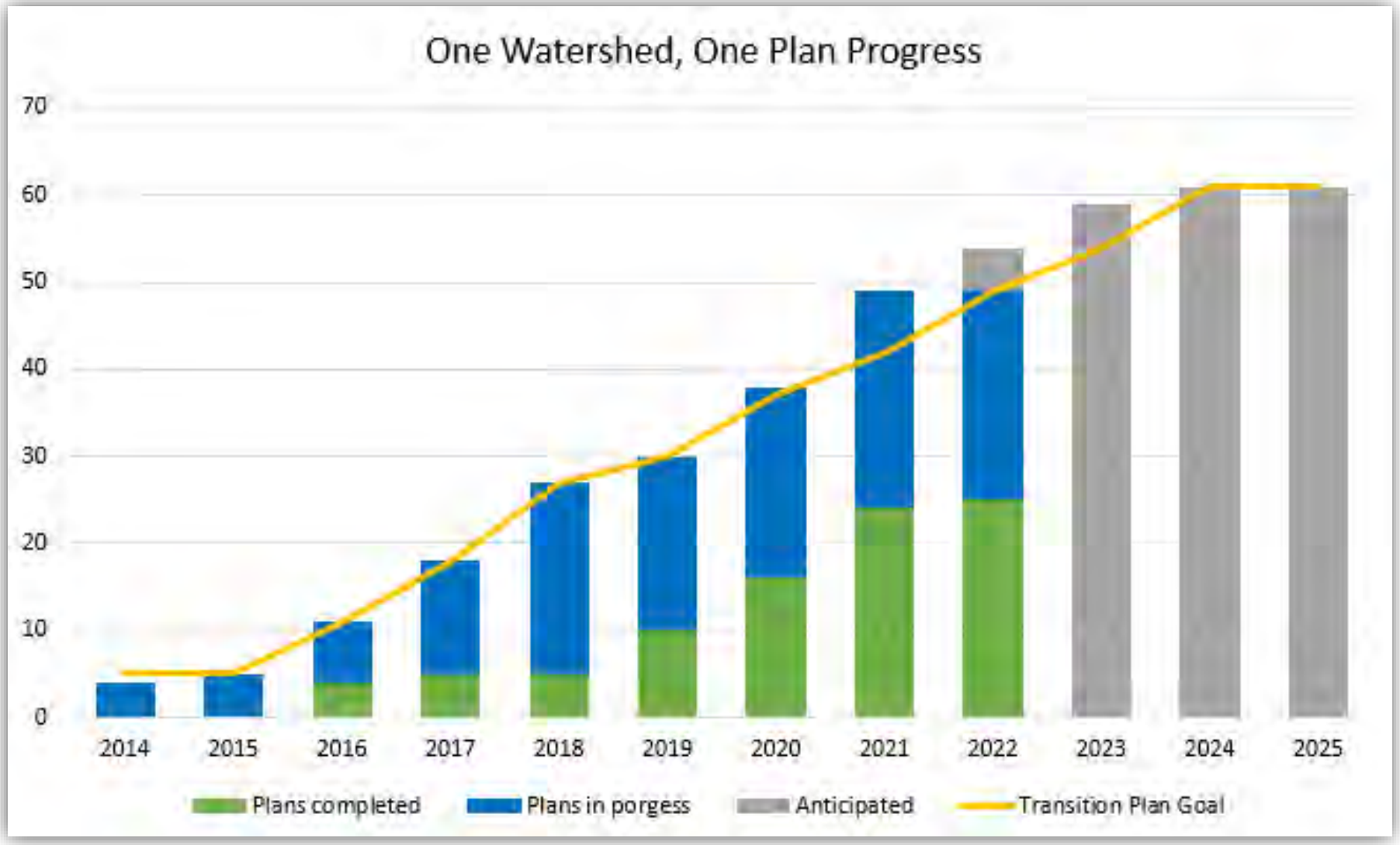
One Watershed
One Plan

CLEAN WATER LAND & LEGACY AMENDMENT

One Watershed One Plan



One Watershed, One Plan Progress



One Watershed, One Plan

	FY10-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23
Clean Water Funds	-	$0.9M	$4.2M	$4.0M	$3.99M	$5.81M
FTEs (state agency staff funded by CWF)	-	1.4	2.1	4.7	6.5	5.7
Dollars Passed Through	-	$0.9 M (95%)	$3.7M (88%)	$2.6M (64%)	$2.5M (61%)	$4.4M (76%)

CLEAN WATER FUND PROPOSAL FY24-25: DNR Program Number: 18

Program Name **Aquifer Monitoring for Water Supply Planning**

Program Contact Name **Jason Moeckel** Phone **651-259-5240**

Contact E-mail Address: **jason.moeckel@state.mn.us**

Person filling out form: **Jason Moeckel** Phone **651-259-5240**

Person filling out form e-mail address **jason.moeckel@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Monitoring, Assessment and Characterization
Groundwater/Drinking Water Implementation

Statutory citation that guides program activities, if applicable:

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

The DNR is developing and maintaining a statewide network of groundwater level observation wells. Work includes data collection and management, analysis, modeling, and work with stakeholders to ensure groundwater is managed sustainably, including small communities to develop water supply plans and developing Groundwater Restoration and Protection Stratedies (GRAPS).

The DNR manage's Minnesota's observation well network to collect critical aquifer level data and flow dynamics needed to protect drinking water, water supplies, and natural resources that depend on groundwater. Includes analysis, modeling, and work with stakeholders to address sustainability management and planning. In Minnesota, growth in demand for water resources is outpacing population growth. As water use increases, planning for adequate water supply is crucial to preventing water shortages and protecting lakes, streams, and wetlands - especially sensitive groundwater dependent trout streams and calcareous fens.

Because groundwater is below the ground surface, we need long-term data collection from groundwater observation wells to understand trends in groundwater levels. We then relate the trend data to precipitation, land use changes, groundwater use, to evaluate if that use is sustainable over time. Long-term data sets are essential to understanding and properly managing this valuable resource.

The DNR's network of 1,125 groundwater level observation wells provides critical information on aquifer levels, flow, and surface water/groundwater interactions that is essential for protecting drinking water, water supplies and water resources that are fed by groundwater.

In addition to maintaining the observation well network, we work with state and local partners to cooperatively manage and share groundwater level data through a new cooperative groundwater monitoring website. We also do modeling, aquifer tests, and other technical analysis to better understand how aquifers are depleted and replenished in response to human use and climate. The DNR has recently been analyzing groundwater/surface water interactions and developing groundwater sustainability thresholds to ensure groundwater pumping does not negatively impact water resources that depend on groundwater.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$1,100,000	$3,000,000	$2,750,000	$2,750,000	$2,750,000	$4,150,000	3700000	20200000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$1		How much of this request will protect drinking water sources INDIRECTLY?	$0

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	Yes
Goal 2	"Groundwater is clean and available to all in Minnesota"	Yes
Goal 3	"Surface waters are swimmable and fishable throughout the state"	Yes
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	Yes

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

Goal 2 Strategy 1, 3

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Outcome: Sustainable water supply that meets the needs of current and future generations.

Outputs: Installing about 50 new monitoring wells annually. Maintaining high quality water level data for the entire network available through the DNR website. Completion of GRAPS in support One Watershed One Plan. Completion of groundwater models.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

These efforts are also supported by state general fund and the water management account.

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

0

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
3	9	12	11.300000000000001	11.5	11		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that "when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** Yes

CLEAN WATER FUND PROPOSAL FY24-25: DNR Program Number: 6

Program Name **Fish Contamination Assessment**

Program Contact Name **Ling Shen** Phone **651-259-5138**

Contact E-mail Address: **ling.shen@state.mn.us**

Person filling out form: **Jason Moeckel** Phone **651-259-5240**

Person filling out form e-mail address **jason.moeckel@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Monitoring, Assessment and Characterization

Statutory citation that guides program activities, if applicable:

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

This program analyzes fish tissue to detect mercury and other contaminants. The information is used to determine whether lakes are impaired for these contaminants (MPCA), and in establishing fish consumption advisories (MDH).

Clean water funding is used to significantly increase (more than double) the number of lakes and rivers that are assessed for mercury contamination on an annual basis. Fish are collected during DNR Fisheries' lake surveys (not paid for by this appropriation), processed for laboratory testing, and analyzed for contaminants. Funding is used to pay for program coordination and lab analysis of fish tissue for contaminants (analysis is done by the Minnesota Department of Agriculture's lab). The data are shared with the Minnesota Pollution Control Agency and the Minnesota Department of Health. Long-term trends are summarized in the Clean Water Fund Performance Report.

Agencies are considering an expansion of these efforts to include analysis of PFAS (per-and polyfluoroalkyl substances) in fish tissue. PFOS contamination appears to be pervasive across Minnesota. PFOS doesn't follow typical bioaccumulation patterns that we've observed for mercury and PCBs. Enhanced and systematic sampling is needed to better undestand PFAS accumulation and revise fish consumption advice.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$270,000	$270,000	$270,000	$270,000	$270,000	$270,000	350000	1970000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$0		How much of this request will protect drinking water sources INDIRECTLY?	$0

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	No
Goal 2	"Groundwater is clean and available to all in Minnesota"	No
Goal 3	"Surface waters are swimmable and fishable throughout the state"	Yes

Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	Yes

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Annually testing 80 additional lakes for mercury levels in fish. Maintaining and revising fish consumption advice.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Increase

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

These efforts are also supported bye the Game and Fish Fund and state general fund.

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

0

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
0	0	0	0	0	0		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that "when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** Yes

CLEAN WATER FUND PROPOSAL FY24-25: DNR Program Number: 6

Program Name **Lake Index of Biological Integrity**

Program Contact Name **Jacquelyn Bacigalupi** Phone **218-203-4315**

Contact E-mail Address: **jacquelyn.bacigalupi@state.mn.us**

Person filling out form: **Jason Moeckel** Phone **651-259-5240**

Person filling out form e-mail address **jason.moeckel@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Monitoring, Assessment and Characterization

Statutory citation that guides program activities, if applicable:

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

This program support MPCA's water quality assessments in lakes with measurements of the biological integrity of fish and plant populations. "Biological integrity" refers to the types and abundance of species that are found in a lake, and how the population varies from what is expected in a high-quality lake in a given region of the state.

The Index of Biological Integrity (IBI) is used to identify and help prioritize lakes for protection and restoration. It's an analytical tool that can identify water pollution problems based on the type and abundance of certain species in a biological community and how it they vary from what is expected for a high-quality lake of that type. The IBI gives a holistic picture of lake condition over time, complementing other traditional water quality measurements (phosphorus, water clarity, toxic contaminants). Developing an IBI involves sampling a wide range of lakes, from high-quality systems to those with significant water quality impacts, plus detailed statistical analysis. A key element of this effort is collecting information about the entire fish community, including non-game fish that are often more sensitive to watershed and shoreline disturbance. Fishery managers traditionally have not sampled these fish communities, but now do for lakes that have been selected for biological assessment by the DNR and MPCA. The DNR participates in the MPCA watershed assessment process, providing the Fish IBI and plant IBI data and interpretation to identify impaired lakes, those meeting standards, and lakes of exceptional biological quality. In addition, the DNR is providing an analysis of the stressors contributing to impairment on lakes listed as impaired for fish IBI. DNR Fish IBI staff are also working with MPCA staff on developing standards to protect lakes supporting cold-water fishes.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$1,320,000	$2,300,000	$2,600,000	$2,600,000	$2,500,000	$2,500,000	2000000	15820000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$0		How much of this request will protect drinking water sources INDIRECTLY?	$0

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	No
Goal 2	"Groundwater is clean and available to all in Minnesota"	No
Goal 3	"Surface waters are swimmable and fishable throughout the state"	Yes
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	Yes

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

Goal 3: Strategy 1, 2, 3

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Four different fish IBI's are now developed to represent a variety of Minnesota lakes. Over 495 lakes have been assessed for fish and stressors identifed. Seventy five lakes contain exceptional fish communities that can be targeted for protection.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

These efforts are also supported by the Game and Fish Fund and Heritage Enhancement Fund

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

0

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
13	13	15.5	14	14	14		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that “when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** Yes

CLEAN WATER FUND PROPOSAL FY24-25: DNR Program Number: 76

Program Name **Buffer Map Maintenance**

Program Contact Name **Jenifer Sorensen** Phone **651-259-5725**

Contact E-mail Address: **jenifer.sorensen@state.mn.us**

Person filling out form: **Jason Moeckel** Phone **651-259-5240**

Person filling out form e-mail address **jason.moeckel@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Monitoring, Assessment and Characterization

Statutory citation that guides program activities, if applicable: **103F.48**

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

Develop, maintain and update a buffer protection map that identifies where 50 ft. (avg. width) buffers adjacent to public waters and 16.5 ft. buffers adjacent to public ditches as required in MS 103F.48

The DNR's role in Minnesota's new buffer law is to produce maps of public waters and ditch systems that require permanent vegetation buffers. The DNR produced the initial buffer protection map in July 2016 and has produced 3 updates reflecting over 2,500 changes that resulted from over 4,000 comments from DNR staff, SWCDs and local governments.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$0	$0	$0	$650,000	$200,000	$200,000	50000	1100000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$0		How much of this request will protect drinking water sources INDIRECTLY?	$0

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	Yes
Goal 2	"Groundwater is clean and available to all in Minnesota"	No
Goal 3	"Surface waters are swimmable and fishable throughout the state"	Yes
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	No

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

An updated buffer protection map identifying where buffers are required.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Decrease

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

General fund, Water Management Account and Water Recreation Account.

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

0

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
			1.2	0.5	0.2000000000000001		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that "when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** Yes

CLEAN WATER FUND PROPOSAL FY24-25: DNR Program Number: 5

Program Name **Stream Flow Monitoring Program**

Program Contact Name **Joy Loughry** Phone **651-259-5686**

Contact E-mail Address: **joy.loughry@state.mn.us**

Person filling out form: **Jason Moeckel** Phone **651-259-5240**

Person filling out form e-mail address **jason.moeckel@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Monitoring, Assessment and Characterization
Comprehensive Local Watershed Management
Nonpoint Source Implementation

Statutory citation that guides program activities, if applicable: **103A.401**

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

This program collects stream flow data, which is used to analyze total runoff, flood flows, calculate pollutant loads for MPCA's water quality assessments, and sample bedload at select stations to analyze sediment transport in streams.

Clean water funds have allowed the DNR to expand a network of stream gages that are critical for MPCA's water quality assessments. Funds are used to install/upgrade and calibrate stream gages and to collect, compile, analyze and distribute data collected at gage stations. The Cooperative Stream Gaging Website provides a portal for agencies and the public to see stream flow data, site photos, water quality information and links to other information. In addition, a Monthly Hydrologic Conditions Report provides general trend information on water resources using climatic data, lake and river gages, and groundwater monitoring information.

The stream flow information collected from these gage stations is used by the Minnesota Pollution Control Agency to calculate pollution loads for Total Maximum Daily Loads. They are also used to evaluate trends in base flow conditions, determine the frequency and magnitude of floods and low flows, assist in assessing changes in land use and watershed conditions and the potential effects of climate change. This information is used to inform comprehensive watershed plans (1W1P) and helps set goals and objectives for implementation efforts.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$1,500,000	$3,700,000	$4,000,000	$4,000,000	$3,900,000	$4,000,000	4000000	25100000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$0		How much of this request will protect drinking water sources INDIRECTLY?	$0

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	No
Goal 2	"Groundwater is clean and available to all in Minnesota"	No
Goal 3	"Surface waters are swimmable and fishable throughout the state"	Yes
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	No

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

Strategy 1 and 2

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Continuously monitored flow at 147 sites. The program has achieved its goal for establishing long term monitoring sites. Current efforts are to maintain sites, service and replace equipment as needed, serve the data through a web application and support analysis of data for use by others.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Other state funding sources are used to maintain previously established gage stations. CWF supplements that activity.

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

0.15384615384615385

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
5	7	14	16.100000000000001	15	15		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that “when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** Yes

CLEAN WATER FUND PROPOSAL FY24-25: MPCA Program Number: 10

Program Name **River and Lake Monitoring and Assessment**

Program Contact Name **Kim Laing** Phone **651-757-2515**

Contact E-mail Address: **kimberly.laing@state.mn.us**

Person filling out form: **Kim Laing** Phone **651-757-2515**

Person filling out form e-mail address **kimberly.laing@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Monitoring, Assessment and Characterization

Statutory citation that guides program activities, if applicable: **Surface water monitoring is a state requirement under the federal Clean Water Act (Sections 303 (d) and 305(b)). The requirements for ensuring the continued evaluation of surface waters and the identification of impairments, delisting impaired waters promptly (removing impaired waters from the federal Impaired Waters List), and submitting TMDLs (which require surface water monitoring data) can be found in MN Statutes 114D.20, subd. 2 (Clean Water Legacy Act).**

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

The Surface Water Monitoring program collects data on lakes, rivers, and streams to complete assessments and determine if waters are impaired or meeting standards, conducts trend analysis to determine water quality changes in our waters over time, and identifies areas for protection and restoration. Program includes 197 sites for annual pollutant load monitoring, and stream and lake monitoring at dozens of sites in up to 16 watersheds over the biennium. Funding for FY24/25 would allow us to continue to conduct water quality monitoring at the basin, watershed, and subwatershed scales and deliver the high quality water quality data needed to run the other aspects of the Watershed Framework.

This program delivers the water quality data that are foundational to all other steps within the Watershed Framework. The monitoring activities allow us to determine ambient condition (are waters impaired or meeting standards), if waters have been protected or restored, and long-term trends in water quality. The data are also used to facilitate biological stressor identification and calibrate watershed models, which are critical to delivering TMDLS and WRAPS, and targeting local implementation efforts. Monitirng data from watersheds we are revisiting help us evaluate progress towards meeting clean water goals, including delisting waters from the Impaired Waters List once they have been restored.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$15,000,000	$15,000,000	$15,200,000	$16,700,000	$16,550,000	$16,300,000	14832000	109582000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$0		How much of this request will protect drinking water sources INDIRECTLY?	$0

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	Yes
Goal 2	"Groundwater is clean and available to all in Minnesota"	No
Goal 3	"Surface waters are swimmable and fishable throughout the state"	Yes
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	Yes

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

Goal 1, Strategy 6 - provide data to complete Source Water Protection Planning; Goal 3, Strategy 1 - provide data to complete WRAPS; Goal 4, Strategy 2 - support agency efforts to inform, educate, and encourage the participating of citizens, stakeholders, and others in the protection and restoration of Minnesota's waters.

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

The primary output from the surface water monitoring activities are a large body of high-quality data, which is used in innumerable ways by other steps within the Watershed Framework. Monitoring data from approximately 16 watersheds will be assessed over the biennium, yielding a list of waters that are impaired or meeting standards. The data will also indicate whether we are meeting clean water goals and restoring impaired waters or not. The watershed pollutant load monitoring network will yield long-term trend data at the basin, watershed and subwatershed scales or help us both understand if pollutant levels from both point source and nonpoint sources combined are reducing, as well as feed watershed models used to target local implementation efforts. A primary feature of the surface water monitoring activities is partnership between MPCA and local SWCDs, WDs, educational institutions, and Tribal nations who work together to select monitoring sites. A large portion of the water chemistry sampling is conducted by local partners, which serves to involve them in this phase of the Watershed Framework and build their knowledge and capacity.

The request for a slight increase in funding would result in contracts with local partners to support lake montoring on lakes that are high priority locally. The increased funding would also support a coordinator who would develop a biological monitoring training program. This program would support requests from local partners to train them on how to conduct fish and aquatic invertebrate sampling using the MPCA's protocols, so that such sampling can occur every year and partners can better track the effectiveness of implementation efforts.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

MPCA historically (back to FY04) received an average of $1,250,000 per year for surface water monitoring and assessment activities from state and federal funds. MPCA has maintained this level of non-CWF funding for surface water monitoring and assessment activities following the advent of the CWLA and CWF. The specific breakdown of funding among the funding sources varies from one year to the next.

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a

legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

0.12

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

On average 2.1 million has been passed through each biennium to LGUs, higher educational institutions, and non-profits

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
36	37.899999999999997	44.799999999999997	42.799999999999997	41.299999999999997	52.700000000000003		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that "when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** yes

CLEAN WATER FUND PROPOSAL FY24-25: MPCA Program Number: 11

Program Name **Groundwater Monitoring and Assessment**

Program Contact Name **Catherine Neuschler** Phone **651-757-2607**

Contact E-mail Address: **catherine.neuschler@state.mn.us**

Person filling out form: **Pam Anderson** Phone **651-757-2607**

Person filling out form e-mail address **catherine.neuschler@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Monitoring, Assessment and Characterization
Groundwater/Drinking Water Implementation

Statutory citation that guides program activities, if applicable: **Minn. Stat. 103A.204 - Groundwater quality; Groundwater Protection Act - Minn. Stat. 103H.001 (Prevent degradation of groundwater) and Minn. Stat. 103H.151 (Develop and promote BMPs).**

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

MPCA's Ambient Groundwater Monitoring and Assessment Program

Groundwater monitoring and assessment to continue to support the MPCA and local and state partners track contaminant trends in an early warning well network, assess downward migration of key contaminants into drinking water aquifers, investigate potential new sources of contamination to the state's groundwater, and better understand the interaction between ground and surface waters in specific areas. Groundwater quality data, modeling, and information about surface water and groundwater interactions will inform restoration and protection strategies developed by the MPCA and local and state partners, advancement of groundwater protection BMPs, and evaluation of their effectiveness in protecting groundwater for drinking, irrigation and healthy aquatic ecosystems.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$2,250,000	$2,250,000	$2,250,000	$2,364,000	$2,363,000	$2,364,000	1900000	15741000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$0		How much of this request will protect drinking water sources INDIRECTLY?	$1

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	Yes
Goal 2	"Groundwater is clean and available to all in Minnesota"	Yes
Goal 3	"Surface waters are swimmable and fishable throughout the state"	No
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	Yes

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

Goal 1, Strategy 6 - provide data to complete Source Water Protection Planning; Portfolio Mix 3

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Maintaining ambient well network of 270 wells focusing on shallow aquifers in urban areas; conducting annual sampling and data analysis of multiple pollutants at most sites; contaminants of emerging concern (CECs) in 40 network wells; providing groundwater data and analysis for Watershed Monitoring and Assessment Reports, WRAPS, GRAPS, and 1W1P.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

MPCA historically (back to FY04) received an average of $225,000 per year for groundwater monitoring and assessment activities from state and federal funds. MPCA has maintained this level of non-CWF funding

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

0.34999999999999998

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

Funds passed through by contract to analytical labs (private, MDH, USGS), well drilling and siting (private well drillers), and equipment providers (private). Number and value of contracts varies by year.

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
3	2.6000000000000001	2.8999999999999999	3.6000000000000001	3.8999999999999999	6.5		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that “when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** yes

CLEAN WATER FUND PROPOSAL FY24-25: MDA Program Number: 4

Program Name **Monitoring for Pesticides in Surface Water and Groundwater**

Program Contact Name **Bill VanRyswyk** Phone **507-344-3203**

Contact E-mail Address: **bill.vanryswyk@state.mn.us**

Person filling out form: **Margaret Wagner** Phone **651-201-6488 (O)**

Person filling out form e-mail address **margaret.wagner@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Monitoring, Assessment and Characterization
Groundwater/Drinking Water Implementation

Statutory citation that guides program activities, if applicable: **MS 18B.04, 103H.175**

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

Funding supports ongoing monitoring using clean water funded laboratory instruments which provides increased capability and greater capacity for pesticide monitoring. Clean Water funding has allowed the MDA to increase the number of detectable pesticides, increase the sensitivity of detection of certain pesticides, and increase the overall number of samples that can be analyzed on an annual basis.

Pesticide monitoring data is used to identify compounds and/or places where concentrations may exceed established water quality benchmarks, guidance values, and/or standards. This data is also used to identify trends regarding detection frequency and concentration of specific agricultural chemicals and to develop and evaluate the effectiveness of best management practices (BMPs) for specific compounds.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$675,000	$700,000	$700,000	$700,000	$700,000	$700,000	700000	4875000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$0		How much of this request will protect drinking water sources INDIRECTLY?	$1

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	Yes
Goal 2	"Groundwater is clean and available to all in Minnesota"	Yes
Goal 3	"Surface waters are swimmable and fishable throughout the state"	Yes
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	No

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

Goal 1: Strategies 1 and 2

Goal 2: Strategy 3

Goal 3: Strategy 1

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Clean Water funding has allowed the MDA to increase the number of detectable pesticides, increase the sensitivity of detection of certain pesticides and increase the overall number of samples that can be analyzed on an annual basis. Those samples include statewide pesticide assessments of municipal drinking water wells, lakes, rivers and streams and wetlands. Data are used to identify and characterize pesticide related impairments and to identify pesticides of concern in Minnesota. Data are also used to evaluate surface and groundwater quality as compared to drinking water standards.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Yes, the MDA will use these funds to enhance the impacts of dedicated funds from the pesticide regulatory account generated from pesticide sales and has leveraged the CWF funds for supplemental EPA grant dollars to conduct monitoring on tribal lands. LCCMR requests and fee increases requiring legislative approval have been proposed but unsuccessful.

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

0

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
0	2.25	2.25	2.25	2.54	2.29		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that “when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** Yes

CLEAN WATER FUND PROPOSAL FY24-25: MDA Program Number: 307

Program Name **Pesticide Testing in Private Wells**

Program Contact Name **Bill VanRyswyk** Phone **507-344-3203**

Contact E-mail Address: **bill.vanryswyk@state.mn.us**

Person filling out form: **Margaret Wagner** Phone **651-201-6488 (O)**

Person filling out form e-mail address **margaret.wagner@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Monitoring, Assessment and Characterization
Groundwater/Drinking Water Implementation

Statutory citation that guides program activities, if applicable: **MS 18B.04**

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

Provides funding for free pesticide testing of private wells in areas where groundwater may be at risk for elevated pesticide concentrations. Testing focuses on the herbicide cyanazine which is no longer used in Minnesota but its degradates are being detected at concentrations above the drinking water standard in some areas.

The Private Well Pesticide Sampling (PWPS) Project is a follow-up program to the Township Testing Program. The primary goal of the PWPS Project is to provide information to homeowners and the general public about the presence of pesticides in private drinking water wells.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$0	$0	$0	$0	$2,000,000	$2,000,000	870000	4870000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$1		How much of this request will protect drinking water sources INDIRECTLY?	$0

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	Yes
Goal 2	"Groundwater is clean and available to all in Minnesota"	Yes
Goal 3	"Surface waters are swimmable and fishable throughout the state"	No
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	No

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

Goal 1: Strategies 1 and 2

Goal 2: Strategy 1

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

By the end of FY22 it is anticipated that approximately 6,500 vulnerable private drinking water wells will have been tested for pesticides. Over 90 wells were identified with pesticide concentrations above drinking water standards. Point-of-use water treatment systems were evaluated to provide well owners information on effective mitigation strategies for removing pesticides from drinking water.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Yes, the CWF funds will leverage two EPA grants to broaden the project scope and the MDA uses dedicated funds from the pesticide regulatory account generated from pesticide sales to supplement a FTE for this project.

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

0.71999999999999997

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

In FY18-FY21, 76% of this funding was passed through to an analytical laboratory.

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
0	0	0	2.600000 0000000 001	2.600000 0000000 001	1.22		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that “when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** Yes

CLEAN WATER FUND PROPOSAL FY24-25: MDH Program Number: 23

Program Name **Contaminants of Emerging Concern**

Program Contact Name **James Kelly, Sarah Fossen Johnson, Myra Kunas (PHL)** Phone **651-201-4080**

Contact E-mail Address: **sarah.fossen.johnson@state.mn.us**

Person filling out form: **Sarah Johnson** Phone **651-201-4080**

Person filling out form e-mail address **sarah.fossen.johnson@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Research, Evaluation and Tool Development
Monitoring, Assessment and Characterization

Statutory citation that guides program activities, if applicable: **Section 103H.201**

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

The Minnesota Department of Health (MDH) develops human health-based drinking water guidance for new contaminants to aid in planning, monitoring, and mitigating impacts from Contaminants of Emerging Concern (CECs). The CEC initiative also actively engages agency and community stakeholders and provides funding for partners engaged in education and awareness. In FY22-23, we will continue the work of reviewing and evaluating chemicals, completing risk assessments for CECs, developing rapid assessments and new risk assessment methods, providing public information materials, giving technical support to our partners andstakeholders, collaborating with EPA research staff, and representing Minnesota interests on state and national boards anc committees.

The work of the CEC Initiative need significant updating and priorite changes in order to meet the demans of stakeholders and continue to engage the public in understanding their CEC exposures from drinking water and other sources. Without Clean Water Funds, MDH would have significantly reduced capacity to review contaminants that pose a threat to ecological and human health in Minnesota. MDH would revert to developing guidance for a limited number of contaminants that are already present in Minnesota groundwater—a significantly less proactive and protective effort. In addition, Minnesota would no longer have the technical staff to aid in decisions around human health risks from CECs in drinking water.

The Public Health Lab (PHL) plays a critical role in the continued evolution of CEC monitoring throughout Minnesota. PHL provides the data associated with sample monitoring. PHL has continuing and additional needs for staff and equipment to support the CEC programmatic work. Those needs include more method development, identifying CEC compounds at lower and lower concentrations, supporting programmatic testing and operationalizing new instrumentation to meet these demands. Ensuring a strong PHL will ensure Minnesota is able to stay at the forefront of CECs.

When the CEC Initiative was first started there was not much information on CECs in waters used for dinking in Minnesota, and very limited laboratory methods available. Since 2010, there have been multiple small and large-scale sampling efforts by state agency staff to identify CECs in the environment. These sampling efforts are illuminating the extent of CEC pollution in Minnesota's waters, but often it is not clear if this pollution presents a human health risk. The PHL mantains and develops new laboratory methods to meet and exceed the needs of state agencies doing this very important environmental sampling work. In addition, PHL also develops and maintains new methods for analyzing for CECs (such as PFAS) in human samples. These analyses have been the cornerstone of biomonitoring projects that have given information about not only what Minnseostans ar being exposed to, but also whether public health interventions are working to reduce their exposures.

The CEC Initiative gives context to these environmental chemicals detections through the development of water guidance values. These values are used by state agencies and other stakeholders. The CEC Initiative gives expert technical assistance on the application of these values. The demand for these kinds of values has continued to grow as more sampling efforts have taken place.

In addition, the CEC Initiative passes through CWF monies in the form of small grants to local or small programs that focus on pollution prevention work for CEC chemicals such as pharmaceuticals and pesticides used in the home. As part of this small grant program, technical staff offer assistance to the local programs, should they wat it. These small grants have generally been awarded to watershed districts, municipalities, and nonprofit agencies.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$1,300,000	$2,040,000	$2,300,000	$2,200,000	$2,200,000	$3,400,000	2400000	15840000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$1		How much of this request will protect drinking water sources INDIRECTLY?	$1

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	Yes
Goal 2	"Groundwater is clean and available to all in Minnesota"	Yes
Goal 3	"Surface waters are swimmable and fishable throughout the state"	No
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	Yes

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

Goal #2: Protect groundwater from degradation, Goal #4.2: Support agency efforts to inform, educate, and encourge the particicpation of itizens, stakeholders, and others in the protection and restoration of our waters

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

- **Number of guidance values, rapid assessments, and screening values completed and published.**
- **The annual stakeholder forum.**
- **Grantee projects.**

We also summarize and capture program activities and highlights on a quarterly, annual, and biennial schedule. These are often qualitative evaluations, but also include number of technical assists we've provided, conferences we've presented at, and other quantitative measures of our work and reach.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Increase

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

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If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

See attached table.

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
3	7	10	11	9	7		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that "when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** Yes

CLEAN WATER FUND PROPOSAL FY24-25: MPCA Program Number: 9

Program Name **Watershed Restoration and Protection Strategies (includes TMDL development)**

Program Contact Name **Glenn Skuta** Phone **651-470-7572**

Contact E-mail Address: **glenn.skuta@state.mn.us**

Person filling out form: **Glenn Skuta** Phone **651-470-7572**

Person filling out form e-mail address **glenn.skuta@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Comprehensive Local Watershed Management
Monitoring, Assessment and Characterization

Statutory citation that guides program activities, if applicable: **114D.15; 114D.20; 114D.26; 114D.35**

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

Watershed Restoration and Protection Strategies (WRAPS), including TMDLs, are developed with local partners to set implementation strategies for impaired waters and healthy waters, including pollutant reduction goals and timelines. They provide the watershed science needed to inform and guide local water planning and implementation efforts. As of the FY22-23 biennium, funding for the We Are Water public engagement program is now centralized in this program.

WRAPS and TMDLs are all about providing the science local water managers need to develop local water plans and implement them. Activities include watershed computer model development and use to identify key subwatesheds contributing high pollutant loads, identification of stressors to fish and aquatic bugs, limited problem investigation monitoring, pollutant load allocations for point and nonpoint sources, and protection and restoration strategy identification. All of this builds on ambient monitoring, and feeds the One Watershed One Plan process. In this way, WRAPS/TMDLs are "blueprints" for watershed planning and implementation. We Are Water is the CWF's premier public engagement program, serving many communities across Minnesota's watersheds over time.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$18,000,000	$18,800,000	$18,800,000	$20,200,000	$19,000,000	$15,100,000	13451000	123351000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$0		How much of this request will protect drinking water sources INDIRECTLY?	$0

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	No
Goal 2	"Groundwater is clean and available to all in Minnesota"	No

Goal 3	"Surface waters are swimmable and fishable throughout the state"	Yes
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	Yes

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

Goal 3, Strategy 2 - Fund completion of WRAPS; Goal 4, Strategy 2 - Support agency efforts to inform, educate, and encourage the participation of citizens,

stakeholders, and others in the protection and restoration of Minnesota's waters. Efforts should include the biennial Clean Water Fund Performance Report, traveling exhibits, more integrated presentation of projects and outcomes supported by the Clean Water Fund on state

web sites, etc.

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

This funding will enable continued development and completion of WRAPS and TMDLs. WRAPS for all 80 watersheds are required by statute to be completed by mid-2023. As of March 2022, 73 of the 80 watersheds are complete. This funding would enable us to complete the rest. Beyond the initial WRAPS for the 80 watersheds, this funding will also enable: use of the WRAPS and TMDLs in One Watershed One Plan projects; O+M for the watershed computer models and the SAM tool, for continued use in local watershed planning and implementation, and for wastewater effluent limit setting; further biological stressor identification and problem investigation monitoring; and as-needed in collaboration with LGUs, additional TMDL development and WRAPS updates. We are Water has measures regarding attendance at exhibits, programming performed, partnerships formed, etc.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

CWF supplements other PCA funding from state general/environmental funds, and federal CWA Section 319 funds

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

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If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

Funding has been passed-through to SWCDs, counties, watershed districts, consulting firms, and for We Are Water to the MN Humanities Center and their local partners. Roughly about 20% of this amount would be passed-through.

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
34	31.800000000000001	31.5	35.200000000000003	35.399999999999999	31.199999999999999		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that "when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** Yes

CLEAN WATER FUND PROPOSAL FY24-25: DNR Program Number: 10

Program Name **Watershed Restoration and Protection Strategies-DNR Portion**

Program Contact Name **Barbara Weisman** Phone **651-259-5147**

Contact E-mail Address: **barbara.weisman@state.mn.us**

Person filling out form: **Jason Moeckel** Phone **651-259-5240**

Person filling out form e-mail address **jason.moeckel@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Comprehensive Local Watershed Management
Nonpoint Source Implementation

Statutory citation that guides program activities, if applicable:

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

The DNR contributes specialized expertise in watershed science that helps the MPCA and local partners build watershed models, identify stressors, prioritize waters for protection, and develop watershed restoration and protection strategies. We do this through local participation in WRAPS teams and with a statewide Watershed Health Assessment Framework, which is a web-based tool for accessing watershed data and exploring watershed health concepts.

The DNR collaborates with MPCA and local partners to develop WRAPS. We bring specialized expertise in watershed science that helps MPCA staff create watershed models, identify stressors, and develop strategies for watershed protection and restoration.

Specifically, the MPCA collects and analyzes data on water quality (nutrients, sediment, toxic contaminants, dissolved oxygen, etc.) and biology (fish and aquatic invertebrates in streams). The DNR adds information and expertise in hydrology (water flow and water levels), geomorphology (stream stability and erosion), and connectivity (dams and other barriers that prevent natural movement of water, sediment, and fish). These five components of watershed health interact with each other to determine whether streams and rivers can support swimming, fishing, and aquatic life. The DNR's expertise in hydrology, geomorphology, and connectivity helps the MPCA determine the cause of water quality impairments, such as too much sediment in a stream, or a fish or invertebrate population that has poor diversity or lacks pollution tolerant organisms (i.e., a low index of biological integrity (IBI) score).

For example, the MPCA may determine that a stream site has a low IBI score, too much sediment, and a lack of habitat. The DNR can further diagnose the problem to determine that the excessive sediment is caused by streambank erosion, which comes from an increase in peak water flows associated with a loss of wetlands, increased drainage and increased rainfall. Loss of riparian habitat and poorly designed road crossings (culverts) add to the problem. Getting to the root cause of the problem helps the WRAPS team think about long-term, sustainable strategies with multiple benefits for the watershed and water quality.

The Watershed Health Assessment Framework is a web-based tool for resource managers and others interested in the ecological health of Minnesota's watersheds. The framework is based on the five components of watershed health described above. A suite of 18 health scores have been calculated to describe watershed characteristics at multiple scales. The tool give users access to extensive data without the need for GIS technology.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$2,100,000	$3,500,000	$3,700,000	$3,880,000	$3,772,000	$3,800,000	3800000	24552000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$0		How much of this request will protect drinking water sources INDIRECTLY?	$0

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	No
Goal 2	"Groundwater is clean and available to all in Minnesota"	No
Goal 3	"Surface waters are swimmable and fishable throughout the state"	Yes
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	No

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

Goal 3: Strategy 2

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Analysis of hydrologic change and sediment dynamics completed for each watershed or catchments, where the information is available.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

0

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
6	12	18	18.600000000000001	17	17		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that "when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** Yes

CLEAN WATER FUND PROPOSAL FY24-25: MDH Program Number: 74

Program Name **Groundwater Restoration and Protection Strategies**

Program Contact Name **Carrie Raber and Steve Robertson** Phone **651-201-4695**

Contact E-mail Address: **carrie.raber@state.mn.us**

Person filling out form: **Carrie Raber** Phone **651-201-4695**

Person filling out form e-mail address **carrie.raber@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Groundwater/Drinking Water Implementation
Comprehensive Local Watershed Management
Nonpoint Source Implementation
Point Source Implementation
Research, Evaluation and Tool Development

Statutory citation that guides program activities, if applicable:

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

The GRAPS program centers on report development for each participating watershed in the 1W1P process, which historically averages 6-8 watersheds per year. Although there has been a significant jump in the number of BWSR approved planning grants, stretching the limits of what is achievable by a small sub-team. To build capacity for report generation we want to explore the use of outside consultants to bridge this production gap. Report generation is not our only challenge, our partners continue to express a lack of confidence in applying the data and information from the GRAPS report into their work. Therefore, we want to continue conducting targeted technical trainings through BWSR, as well as other training opportunities when applicable. Furthermore, building on the existing groundwater modules to create drinking water specific trainings to a variety of audiences. Continue support of the Watershed Health Assessment Framework (WHAF) that hosts GRAPS specific datasets providing real time data to users that seek an easy to use database for state aggregated groundwater information. We are seeking to continue our partnership with the MN Geological Survey (MGS) in the development of the watershed 3D Geological Models that create images of the subsurface allowing the user to interact with underlying geology to guide decison making. Additionally work with hydrogeologist from MDH to develop regional groundwater flow models to define aquifers, aquitards, and recharge areas within a watershed. Even with the investment in data delivery and decision support tools, it is clear our local partners need access capacity building resources and groundwater specialist that can help move groundwater planning and implementation forward. We would like to continue the Accelerated Implementation Grant and support 3 pilot positions in the SWCD Technical Service Areas (TSA). By 2025 all watersheds will have engaged in the 1W1P planning process providing an opportunity for GRAPS assessment and evaluation to shape what GRAPS will look like for the next 10 years.

The GRAPS initiative has proven to be an effective model of state agencies collaborating to deliver a comprehensive overview of groundwater information in one document, eliminating barriers to local implementation. It results in a clearinghouse of information and shared goals to advance groundwater implementation. It is also one of the few approaches to consider the needs of private well owners within the framework of groundwater management.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$0	$0	$300,000	$250,000	$400,000	$1,100,000	1126000	3176000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$0		How much of this request will protect drinking water sources INDIRECTLY?	$1

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	Yes
Goal 2	"Groundwater is clean and available to all in Minnesota"	Yes
Goal 3	"Surface waters are swimmable and fishable throughout the state"	No
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	Yes

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

2.1: Complete GRAPS for all major watersheds engaged in comprehensive watershed planning by 2025.

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

The number of GRAPS reports generated. Trainings and education opportunies created. The number of regional groundwater models developed. The continued enhancement of the decision support tool and 3D imagining of the groundwater subsurface at a watershed scale.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Increase

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

No

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

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If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

Past grantees: Pipestone SWCD, Stearns SWCD, Freshwater Society, and the Minnesota Geological Survey. In fiscal year 2022, six awards were given to local governents (SWCDs and Counties) through the Accelerated Implementaiton Grant. A separate document ha

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
0	0	1	1	1	2		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that "when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** Yes

CLEAN WATER FUND PROPOSAL FY24-25: MDH Program Number: 24

Program Name **Source Water Protection**

Program Contact Name **Sandeep Burman and Steve Robertson** Phone **651-201-4648**

Contact E-mail Address: **steve.robertson@state.mn.us**

Person filling out form: **Steve Robertson** Phone **651-201-4648**

Person filling out form e-mail address **steve.robertson@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Groundwater/Drinking Water Implementation
Monitoring, Assessment and Characterization
Comprehensive Local Watershed Management

Statutory citation that guides program activities, if applicable: **Minnesota Administrative Rules Chapter 4720**

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

The Source Water Protection Program at MDH takes a collaborative, science-based approach to protect sources of drinking water and protect the health of public water system customers. The Source Water Protection Program delineates protection areas around drinking water sources, called Drinking Water Supply Management Areas (DWSMAs), and supports local planning to prevent drinking water contamination. This planning process is tied to financial assistance programs to facilitate local implementation within the DWSMA. The Source Water Protection Program is also establishing an ambient monitoring program to monitor and address emerging threats to drinking water, such as PFAS, manganese, and cyanazine.

The Source Water Protection program continues to conduct source water protection work at the local level, in conjunction with public water systems. At the same time, MDH is working to integrate these activities with those of partners and stakeholders to increase the acceptance, effectiveness, and efficacy of implementation efforts. Core activities continue to focus on proactive planning and targetted implementation to protect groundwater and surface water sources of drinking water, future needs require more emphasis on characterizing water quality conditions of these sources. This information is needed to improve management and mitigation efforts to protect and improve drinking water supplies.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$2,400,000	$2,830,000	$3,230,000	$3,800,000	$5,470,000	$5,494,000	7884000	31108000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$1		How much of this request will protect drinking water sources INDIRECTLY?	$0

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	Yes
Goal 2	"Groundwater is clean and available to all in Minnesota"	Yes
Goal 3	"Surface waters are swimmable and fishable throughout the state"	No
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	Yes

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

1.1, 1.5, 2.4, 2.5, 2.6

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Engage community public water systems in source water protection planning and implementation; Update Source Water Assessments for all community public water systems using surface water by 2025; Complete source water protection planning for surface water systems by 2027; Provide financial assistance to facilitate source water protection implementation through grants.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Yes. MDH receives funding from EPA to support source water protection. That support has been static for years.

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

7.6867030965391617E-2

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

MDH uses CWF appropriations to support three grant programs for public water systems. In FY20-21, over 200 grants were issued, totaling about $1.6M.

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25

7	10	11	11	13	14		

Legacy Amendment Attribution: Minnesota Statutes 114D.50 Subd. 4(f) requires that “when practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo…accompanied by the phrase "Click here for more information." In addition, the Clean Water Council has issued guidance on the use of the logo and attribution for any appropriation to the legacy amendment and the Legislature. **Will you ensure that the legacy logo is displayed and attribution given to the legacy amendment in publicly available materials, when practicable?** Yes

CLEAN WATER FUND PROPOSAL FY24-25: BWSR Program Number: 16

Program Name **Watershed Management Transition (One Watershed, One Plan)**

Program Contact Name **Julie Westerlund** Phone **651-600-0694**

Contact E-mail Address: **julie.westerlund@state.mn.us**

Person filling out form: **Marcey Westrick** Phone **651-284-4153**

Person filling out form e-mail address **marcey.westrick@state.mn.us**

Which activities of the Water Management Framework does the proposal address?

Comprehensive Local Watershed Management

Statutory citation that guides program activities, if applicable: **M.S. 103B.801**

Rationale/Background: Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

Accelerate implementation of the State's Watershed Approach through the statewide development of watershed-based local water planning that is synchronized with Watershed Restoration and Protection Strategies (WRAPS) and Groundwater Restoration and Protection Strategies (GRAPS) by providing technical assistance, program oversight, and grants to local governments.

Local governments develop plans with priortized, resource-focused implementation plans based on data, state strategies, and local values. Plans are comprehensive and address protection and restoration.

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23 APPROPRIATED	TOTAL FY10-23
$0	$0	$0	$0	$0	$0	5808000	5808000

FY24 Request	FY25 Request	FY24-25 TOTAL REQUEST

How much of this request will be spent EXCLUSIVELY to protect drinking water sources?	$0		How much of this request will protect drinking water sources INDIRECTLY?	$0

Does this request address any of the following goals in the Clean Water Council's Strategic Plan?		
Goal 1	"Drinking water is safe for everyone, everywhere in Minnesota"	Yes
Goal 2	"Groundwater is clean and available to all in Minnesota"	Yes
Goal 3	"Surface waters are swimmable and fishable throughout the state"	Yes
Goal 4	"All Minnesotans value water and take actions to sustain and protect it"	No

Please indicate which strategy in the Clean Water Council's Strategic Plan applies to this proposal. (Please request a copy of the Plan from the Clean Water Council if necessary.)

Goal 3, Strategy 3

Describe the likely measureable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

up to 7 plans completed per year.

Long-term funding vision: If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Decrease

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Supplement vs. supplant: Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Pass-Through: Will part or all of this funding from the CWF be passed through to non-state entities such as SWCDs, universities or other local units of government? If yes, please be specific about how much will go to non-state entities and what type.

0.62656641604010022

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much. Feel free to e-mail separate documents to the Clean Water Council at paul.gardner@state.mn.us

60%

Indicate the number the full-time state employees supported by the CWF in this proposal

FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
0	0	1.399999 9999999 999	2.100000 0000000 001	4.700000 0000000 002	6.5		

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