

# Minnesota Agricultural Water Quality Certification Program

*Certifying that Minnesota's farms and waters can prosper together*



Hypoxia Task Force Public Meeting  
State Member Progress Report - Minnesota  
December 14, 2021



# Program Overview

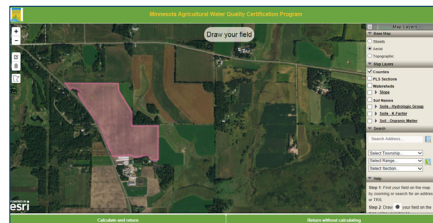
- Historic partnership of local, state, federal government, and private industry
- Whole-farm planning for water quality; risk assessment of every parcel, every crop; boots-on-the-ground conservation
- Pairs producers with professionals to develop site-specific solutions for risks to water quality





# Program Overview

- **Site Specific Risk Assessment:** every field/parcel, every crop; acres and practices mapped; random reviews.
- MAWQCP offers producers:
  - Regulatory certainty for 10 years
  - Financial and technical assistance
  - Check-up/Validation for growers
  - Recognition
  - Branding and marketing opportunity
  - Specialty endorsements
- Available to either/both renter or landlord
- Free and voluntary





# Certification Process

1. Application
2. Meet with Area Certification Specialist
3. Risk assessment
4. Field verification
5. Financial assistance
6. Risk mitigation

Minnesota Department of Agriculture  
1525 Robert Street North, St. Paul, MN 55106-2939  
www.mnstate.gov/ag

Pesticide and Fertilizer Management Phone 651-201-6480

**Minnesota Agricultural Water Quality Certification Program Application**

This serves as formal application to participate in, and formal declaration of intent to achieve certification by, the Minnesota Agricultural Water Quality Certification Program (MAWQCP). Formal application for certification may provide priority attention and consideration for state and federal agency decisions involving technical and financial assistance to obtain certification. Completion of this application by the Applicant constitutes eligibility for any priority status provided in support of the Minnesota Agricultural Water Quality Certification Program.

The data collected during your participation in the Minnesota Agricultural Water Quality Certification Program will only be used in support of this program. You are not required to provide MDA with this data; however, failure to do so will result in your removal from the Agricultural Water Quality Certification Program. Only people with a need to access your data in support of the Agricultural Water Quality Certification Program will have the authority to access your data unless you provide MDA with informed consent to release the data, a court orders the release of the data, or upon request of a legislative auditor to review the data.

Applicant's full Name (first, last, and middle initial)  
Address  
City  
State  
Zip

Phone  
Fax

Minnesota Agricultural Water Quality Certified producers must be in compliance with all existing applicable state water protection rules and regulations at the time of Certification. Producers seeking certification must confirm compliance with the following existing requirements:

	Are you in compliance with Minnesota Administrative Rules Chapter 7020 - Animal Feeding and, if applicable, do you have a valid National Pollutant Discharge Elimination System (NPDES) or Stormwater Discharge System (SDS) permit for your facility operation?	Circle One
1	Yes	N/A
2	Are you in compliance with rules related with any unresolved violations of the Minnesota Wetlands Conservation Act (Minnesota Statutes, Sections 103B.01 - 103B.03)?	Yes N/A
3	Do you have a Subsurface Sewage Treatment System (septic system) that is deemed an Imminent Threat to Public Health and/or have been cited in violation of local ordinances that require an immediate upgrade?	No N/A
4	Are you in compliance with the Federal Insecticide, Fungicide, and Rodenticide Act and Minnesota Statutes (MSA, 19A.01, with any associated amendments and local rules, regulations, and ordinances regarding handling and disposal?	Yes N/A
5	Are you in compliance with the Federal Food, Drug, and Cosmetic Act and Minnesota Statutes (MSA, 19A.01, with any associated amendments and local rules, regulations, and ordinances regarding handling and disposal?	Yes N/A

Yes, your MAWQCP representative can assist you with MAWQCP certification. (Note: all MAWQCP-certified producers will receive technical and financial assistance to meet the requirements of the program.)

Alternative forms of communication upon request. The MDA is an equal opportunity employer.

AG-03047 3/19

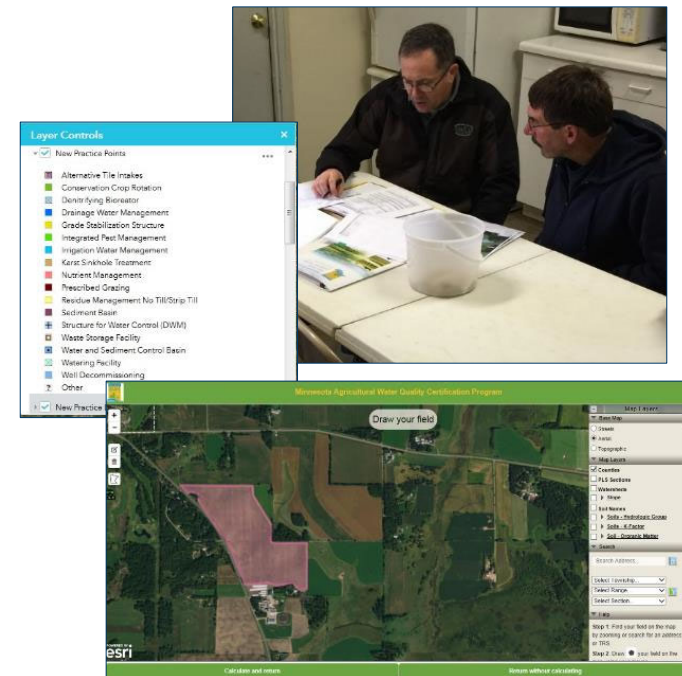




# Certification Process

## Meet with Certification Specialist

- Agronomy and Conservation accredited professionals
- Personal consultant to work together to identify desired practices and mitigate water quality risks (always entirely free of charge)
- Site-specific customized to land and resources
  - Physical field properties
  - Nutrient management
  - Tillage management
  - Pest management
  - Irrigation management
  - Drainage management
  - Conservation practices





# Certification Process

## Risk Assessment

- Online tool: <https://mnwatercertify.mda.state.mn.us/wqcpapp/>
- Produces documentation for every field/parcel, every crop – functionality for including in lease agreements

## Field verification

- Confirm all risks to water quality to be treated and desired practices and management are appropriate and functional

## Risk mitigation

- Implement new practices to treat risks to water quality necessary to earn certification
- Technical assistance provided by certifying agent





# Financial Assistance

## Regional Conservation Partnership Program (RCPP)

- ~\$1.5 million available annually for MAWQCP producers

## MAWQCP Financial Assistance Grant

- \$5,000 max, 75% cost share

## Farm Business Management Scholarship

- Up to 75% off tuition for MAWQCP producers
- Available at seven Minnesota State Colleges

## And absolutely any and all available programs and sources

- Personal assistance provided by certifying agent to access any funding available anywhere

Financial assistance can be used for practices needed to get certified or improvements when certified





# Implementation

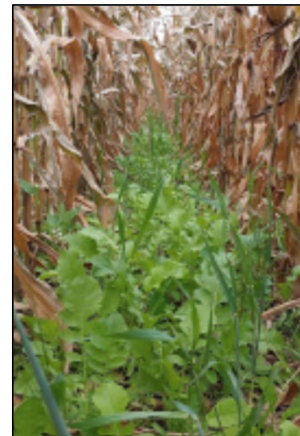
Access Control  
 Alternative Drain Tile Intakes (rock, pattern, Agri  
 Drain H2O Quality Intakes/no perforated risers)  
 Channel Bed Stabilization  
 Conservation Cover  
 Constructed Wetland  
 Contour Buffer Strips  
 Cover Crop  
 Critical Area Planting  
 Denitrifying Bioreactor  
 Diversion  
 Drainage Water Management  
 Feedlot/Wastewater Filter Strip  
 Fence  
 Field Border  
 Filter Strip  
 Forage and Biomass Planting  
 Grade Stabilization Structure  
 Grassed Waterway  
 Heavy Use Area Protection  
 Integrated Pest Management  
 Irrigation System, Sprinkler  
 Irrigation Water Management  
 Karst Sinkhole Treatment  
 Lined Waterway or Outlet  
 Mulching  
 Nutrient Management (plan development)  
 Obstruction Removal  
 Open Channel  
 Pipeline

Pond  
 Prescribed Grazing  
 Pumping Plant  
 Residue and Tillage Management - No-Till/ Strip Till/  
 Direct Seed  
 Residue and Tillage Management - Ridge Till  
 Riparian Forest Buffer  
 Roof Runoff Control (feedlot)  
 Sediment Basin  
 Spring Development  
 Stream Crossing  
 Streambank and Shoreline Protection  
 Strip cropping  
 Structure for Water Control  
 Subsurface Drain  
 Terrace  
 Trails and Walkways  
 Tree & Shrub Site Preparation  
 Underground Outlet  
 Vegetated Subsurface Drain Outlet (Saturated  
 Buffer)  
 Vegetative Barriers  
 Waste Storage Facility  
 Water & Sediment Control Basin  
 Water Well  
 Water Well Decommissioning  
 Watering Facility  
 Wetland Restoration



## Top practices include:

- Cover crop
- Grassed waterway
- Water and sediment control basin
- Fence
- Prescribed grazing

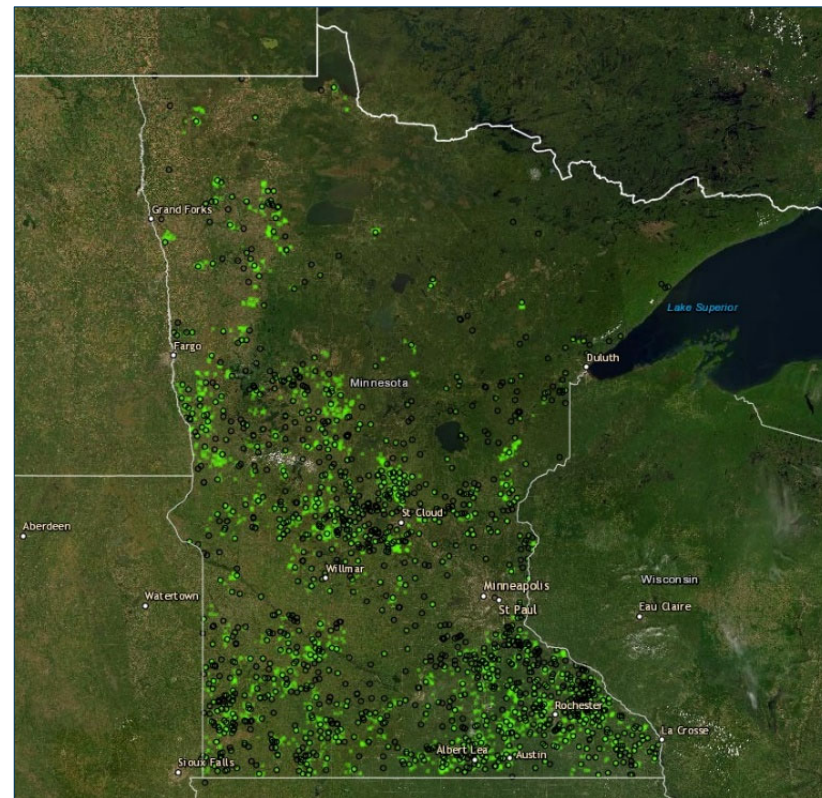




# Program Outcomes

*Outcomes as of December 30, 2021*

- **1,156** certified producers
- **808,187** certified acres
  - 2,341 new practices
  - 119,322 tons of soil saved per year
  - 40,363 tons of sediment reduced per year
  - 51,841 pounds of P prevented per year
  - As much as 49% reduction in nitrogen loss
  - 44,393 CO<sub>2</sub>-equivalent tons reduced per year
- **163** Endorsements:
  - 55 Soil Health
  - 46 Integrated Pest Management
  - 33 Wildlife
  - 29 Climate Smart



CLIMATE  
SMART



SOIL  
HEALTH



WILDLIFE



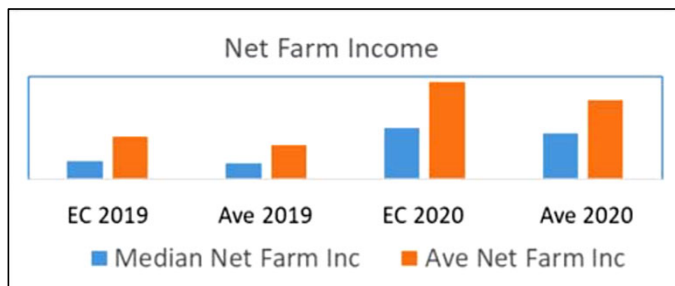
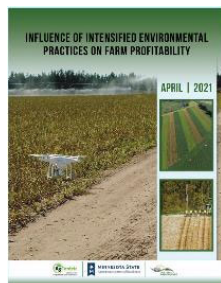
INTEGRATED  
PEST  
MANAGEMENT





# Program Outcomes

- Farm Business Management program water quality sort results for 2019 and 2020 (FINBIN)
  - MAWQCP-certified farms averaging 20% higher net income than non-certified farms
  - Better debt-to-asset and operating expense ratios
  - 2020 profits averaged \$40,000 or 18% higher
  - 2019 profits averaged \$19,000 or 20% higher



Income Statement	2019		2020	
	Environmetal Sort (EC)	Benchmark Average (Ave)	Environmetal Sort (EC)	Benchmark Average (Ave)
Gross Cash Farm Income	\$801,282	\$744,078	\$997,573	\$834,622
Total Cash Farm Expense	\$658,545	\$645,752	\$751,565	\$697,094
Net Cash Income	\$142,737	\$98,326	\$246,008	\$137,529
Inv Chg/Deprec/Cap Sales	-\$49,916	-\$24,683	-\$33,116	\$35,158
Average Net Farm Income	\$92,821	\$73,643	\$212,892	\$172,687
Median Net Farm Income	\$40,008	\$33,377	\$111,406	\$100,684



# Program Outcomes

Appropriation	FY14-15	FY16-17	FY18-19	FY20-21	Total
Clean Water Funds	\$3.0M	\$5.0M	\$5.0M	\$6.0M	\$19.0M
Dollars Passed Through	\$1.6M	\$2.7M	\$3.1M	\$4.2M	\$11.6M
Total\$/acre	FY14 \$1.5M \$541.52	FY16 \$5.5M \$50.15	FY18 \$10.5M \$28.04	FY20 \$16M \$25.33	
	FY15 \$3M \$113.63	FY17 \$8M \$31.95	FY19 \$13M \$25.37	FY21 \$19M \$24.25	



# Program Outcomes

## Random Reviews Conducted

- 305 reviews complete 2018-2020
- 94% remain in active certification status
  - 99.4% when remove sales & deaths
- Several examples of continuous improvements
  - Approx. 25% further decrease in tillage since time of certification
  - Many examples of new cover crops and perennial planting





# Partnerships













Board of Water and Soil Resources

Department of Natural Resources

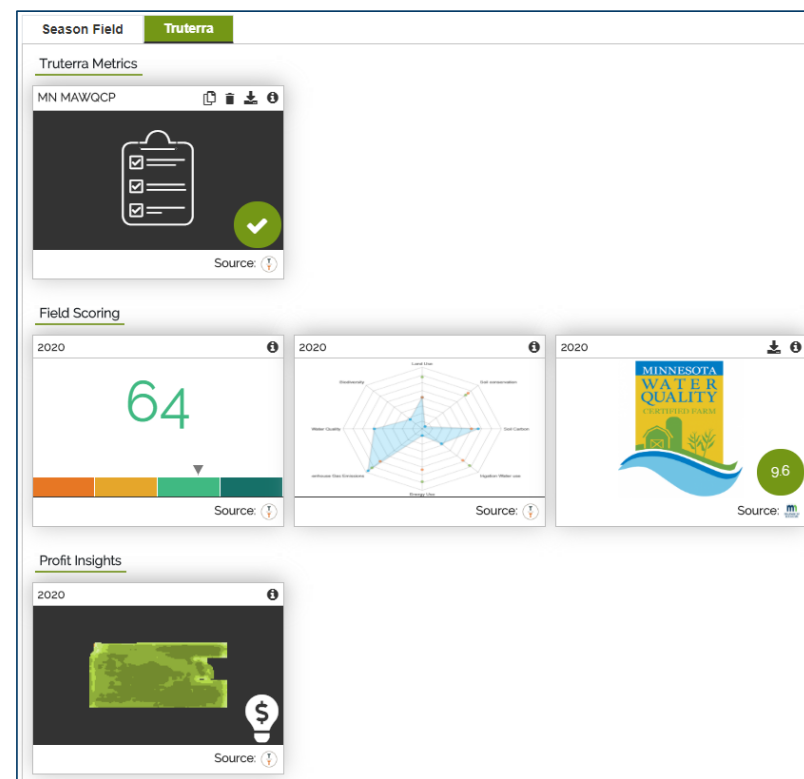
Pollution Control Agency





# Partnerships

- Interface with precision ag software platforms and providers.





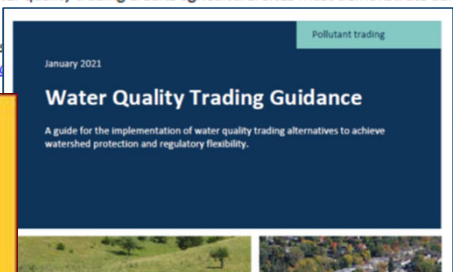
## ...Up Next

- Farmers Climate Market Guide
- MAWQCP Climate Smart Farms bridge-payments
- Water Quality Trading pilot project
- Aggroinformatics data discovery and analysis platform project (G.E.M.S™)
- Parties seeking new endorsements: Irrigation and Drainage Water Management
- More....

### Appendix C. Agricultural eligibility criteria for credit generation

For eligibility to generate water quality trading credits agricultural sites must demonstrate adherence to good farming practices by:

- 1) Current and maintained Water Quality Certification generate credits if:



Carbon Market	Bayer
Payment Launch Date, can producers enroll right	Up to \$9/acre/year depending on practices enrolled, \$3 for tillage reduction and \$5 for cover crop use.
Minimum Enrollment, max enrollment?	2020, yes Yes, minimum of 10 acres, no maximum.
Requirements	A producer must have a Climate FieldView Plus (CFVP) account and grow corn and soybeans. They must also agree to share all the data required for the Bayer Carbon Program including soil samples every five years.
Eligible Practices	Practices that you can be paid for under the Bayer Carbon Program are no-till, strip till and cover crop use.
Verification Methods	Use of data from the Climate FieldView Plus account and QGIS remote sensing and soil sampling once every 5 years. Producers must pay for a Climate FieldView Plus account, but do not have to purchase Bayer products. Soil tests and verification will be covered by Bayer.
Costs	Producers must be enrolled in the Bayer Carbon Program for ten years, but can subtract years if they are receiving payments for historical practices. Producers must continue using the practices they were paid for, for an additional ten year reversion period after the initial ten years.
Term	No, if a producer is already doing both tillage reduction and cover crops they are still eligible for the program as long as they didn't start those practices prior to January 1, 2012.
Lookback	Yes, but practices cannot have been implemented before January 1, 2012 to qualify.
Requires Additionality	No, if a producer is already doing both tillage reduction and cover crops they are still eligible for the program as long as they didn't start those practices prior to January 1, 2012.
Allowed to use Gov cost share	Yes, producers can participate in state and federal programs that support climate-smart practices as long as they do not generate greenhouse gas reduction credits.
Contract Termination Options	Dropping out of the program is permitted, while we are looking for long-term enrollment, we understand that circumstances change. There is no penalty for leaving the program, but you must provide written notice to Bayer at least 30 days prior to the end of the current program year.
Required to enroll all acre/hatched acres	Benefits of the practices. However, in exceptional circumstances, Bayer may approve requests to remove a field from the program. Each year of the program, you may submit a request to Bayer to update (add or remove) enrolled fields. Enrolled land will need a one-time signature from the land owner.
Penalty if no increase in carbon/cost implement a practice	Should be notified. The producer will not receive payment for those years, and Bayer may choose to terminate the agreement following a review of the circumstances. However, if despite best efforts to implement a cover crop practice, and the cover crop fails due to factors outside of the producers control (such as a weather event), they will still qualify for payment, but may need to provide additional evidence showing their efforts. There is no penalty for leaving the program if written notice is provided 30 days prior to end of current program year.
Payment Schedule	Payments are made upon practice verification. For practices used in Fall 2023/Spring 2022, payments should be expected in Q4 of 2022. There is a one-time payment for lookback practices at the same rate as new practices.
Third party verification	Unknown.
Enrollment Assistance	Yes, the Customer Success Team (carbonprogram@bayer.com) or phone (833-877-7334).
Technical/Agronomic Assistance	Once enrolled, Bayer will match you with dedicated agronomic support via email and phone. Cover crop discount and selection available through LaCrosse Seed.
Does Farmer retain rights and ownership of carbon credit?	No, Bayer would pay the producers in cash or in credits to buy products on the Bayer PLUS rewards platform. Bayer would in turn sell the credits to other organizations or use for their own sustainability goals.
Contact	833-877-7334, carbonprogram@bayer.com
Platform Details	CFVP has a \$500 set up cost, plus \$50/year subscription cost. FieldView enables your farming enterprise to collect, stream and analyze operational data across your entire farming operation. Data is stored in the cloud and accessible across multiple devices and through the web. This platform enables the collection of data that will be used to calculate carbon sequestration. QGIS is an automated system that uses remote sensing, satellite-based data to monitor conservation practices in agricultural systems, including various forms of reduced tillage and the planting of winter



# Contacts

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