

# 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



[www.mda.state.mn.us](http://www.mda.state.mn.us)  
[www.mylandmylegacy.com](http://www.mylandmylegacy.com)



## 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



# 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

## Absolutely any and all available programs and sources

- Technical assistance provided by certifying agent to access

Cost share 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:

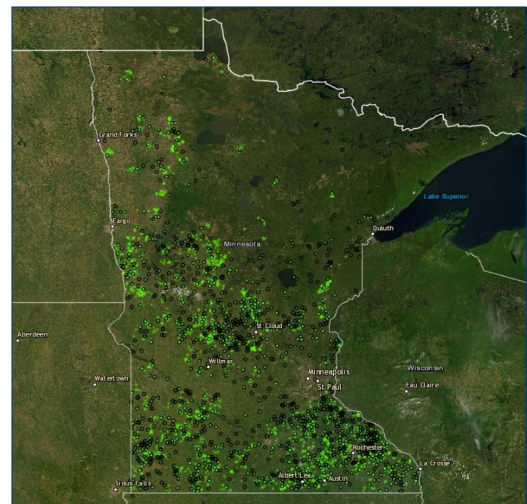
- Cover crop
- Grassed waterway
- Water and sediment control basin
- Fence
- Prescribed grazing



# Program Outcomes

*Outcomes as of December 6, 2021*

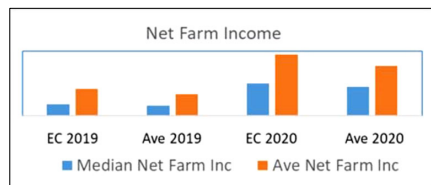
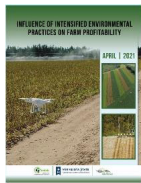
- **1,152** certified producers
- **805,073** certified acres
  - 2,330 new practices
  - 116,027 tons of soil saved per year
  - 39,818 tons of sediment reduced per year
  - 50,896 pounds of P prevented per year
  - As much as 49% reduction in nitrogen loss
  - 43,347 CO2-equivalent tons reduced per year
- **160** Endorsements:
  - 52 Soil Health
  - 46 Integrated Pest Management
  - 33 Wildlife
  - 29 Climate Smart





# 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	
	Environmental Sort (EC)	Benchmark Average (Ave)	Environmental 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

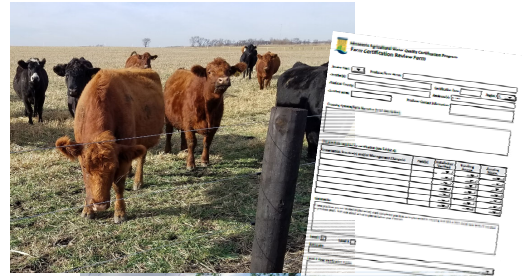
Appropriation	FY14-15	FY16-17	FY18-19	FY20-21	Total
Clean Water Funds	\$3.0M	\$5.0M	\$5.0M	\$6.0M	\$19.0M
Dollars Passed Through	\$1.6M	\$2.7M	\$3.1M	\$4.2M	\$11.6M
Total\$/acre	FY14 \$1.5M \$541.52	FY16 \$5.5M \$50.15	FY18 \$10.5M \$28.04	FY20 \$16M \$25.33	
	FY15 \$3M \$113.63	FY17 \$8M \$31.95	FY19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



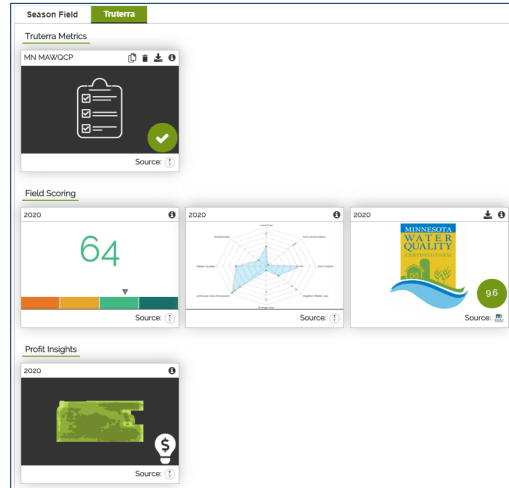
# Partnerships





# 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
- Agroinformatics 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 Certificates generate credits if:

The complex block contains a list of eligibility criteria for agricultural sites to generate water quality trading credits. It includes requirements for current and maintained Water Quality Certificates, adherence to good farming practices, and specific criteria for various agricultural activities. A Minnesota Supercomputing Institute logo is prominently displayed. To the right, there is a document titled 'Water Quality Trading Guidance' with a cover image of a field. Below the list, there is a photograph of two men standing in a field, one holding a tablet displaying a map.



# Contacts

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# Thank You



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