



Minnesota Agricultural Water Quality Certification Program Legislative Report



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Executive Summary

The Minnesota Agricultural Water Quality Certification Program (MAWQCP) is a voluntary program that supports the adoption of agricultural best management practices that are protective of water quality. The program was signed into statute in 2013, piloted in 2014, and began statewide operations in July 2015.

The program has:

- Developed an innovative and comprehensive process for identifying and mitigating agricultural risks to water quality on a field-by-field, crop-by-crop basis;
- Partnered with Minnesota's soil and water conservation districts to create a statewide system, ensuring the program is delivered by local conservation professionals;
- Pursued partnerships with industry leaders, such as Land O' Lakes Inc., to jointly promote the MAWQCP, leveraging the program's budget and allowing it to certify more farmers than it otherwise could; and,
- Implemented an outreach and engagement initiative to increase program awareness, secure program applications, and garner feedback from stakeholders.

As of December 31, 2018, the program had certified 692 farms, representing 450,696 acres of working lands. These 692 farms have generated 1,328 new best management practices¹ that are keeping 127 million pounds of soil on Minnesota fields annually and keeping 50.2 million pounds of sediment and 30,000 pounds of phosphorous from entering our lakes, rivers, and streams annually.

In 2019, the MAWQCP looks to continue building on its legacy of robust growth and enroll more producers and landowners into the program to continue its work of protecting and improving Minnesota's most iconic natural resource.

Introduction

The Minnesota Agricultural Water Quality Certification Program (MAWQCP) is a first of its kind, voluntary program that supports the implementation of conservation practices on a field-by-field, whole farm basis. Through its innovative and nationally recognized process of identifying and mitigating agricultural risks to water quality, the MAWQCP delivers on-farm conservation that helps protect and restore Minnesota's lakes, rivers, streams, and groundwater. The MAWQCP is a national demonstration project that is operated as a federal-state partnership between the State of Minnesota, the United States Department of Agriculture, and Minnesota's 88 soil and water conservation districts (SWCDs). The certification program has also partnered with industry leaders including Land O' Lakes Inc., Hormel Foods, and Central Farm Service to promote the program and enroll additional acreage. Farmers and landowners who treat all risks to water quality on their operation are certified and are deemed to be in compliance with any new water quality laws or rules for 10 years. Certification gives farmers and the public greater certainty about regulatory standards and assures the public that Minnesota's farmers are doing their part to protect water quality.

This report is submitted pursuant to Minnesota Statute §17.992:

¹ A best management practice is only counted and counted once, if it fully mitigates a particular risk to water quality. For example, if a series of three water and sediment control basins are required in order to mitigate a water quality risk, then the installation of the three basins would be counted as one best management practice.

The commissioner, in consultation with the Minnesota Agricultural Water Quality Certification Program Advisory Committee, commissioner of natural resources, commissioner of the Pollution Control Agency, and Board of Water and Soil Resources, shall issue a biennial report to the chairs and ranking minority members of the legislative committees with jurisdiction over agricultural policy on the status of the program.

Program Background

The MAWQCP was initially formed through a 2012 Memorandum of Understanding (MOU). The MOU was the culmination of talks led by Governor Mark Dayton, United States Department of Agriculture (USDA) Secretary Tom Vilsack, and U.S. Environmental Protection Agency (EPA) Administrator Lisa Jackson. The MOU stated that Minnesota's state agencies responsible for overseeing issues at the nexus of agriculture and water quality, including the Minnesota Department of Agriculture (MDA), Pollution Control Agency (PCA), Department of Natural Resources (DNR), and Board of Water and Soil Resources (BWSR), would jointly deliver the program with the MDA acting as the lead agency.

Under the MOU, the MDA was tasked with convening an advisory committee of diverse agricultural stakeholders to design an agricultural water quality certification program. The advisory committee was comprised of fifteen members who represented a wide variety of interests. Members included representatives from the Minnesota Farm Bureau Federation, the Minnesota Farmers Union, county and municipal government, agribusiness, the environmental community, and diverse farm operations. Chief among the advisory committee's recommendations was piloting the program prior to statewide implementation and the creation of a new, innovative assessment process that would help field staff identify risks to water quality for each crop being grown. These insights informed the MAWQCP's originating statute (Minn. Stat. § 17.9891-17.993), which was signed into law in the spring of 2013. Under the statute, once producers and landowners have mitigated all risks to water quality present on their operation, they are eligible to become certified and sign a contract with the State of Minnesota. The certification contract states certified producers and landowners will be deemed in compliance with any new state agricultural water quality laws or rules for 10 years.

In June 2013, the MAWQCP began designing its pilot phase and sought applicants to select four sub-watersheds, representing the state's distinct agricultural and geographic regions. The pilot areas were successful where they were coordinated through local SWCDs; however, other pilot areas failed to gain robust participation in the region where the pilot was led by a nonprofit. Minnesota's SWCDs are historic providers of conservation services and are seen by Minnesota's farmers and landowners as trusted partners. So, when the program began implementing statewide operations in July 2015, it partnered with the SWCDs to deliver certification services.

In addition to the advisory committee, the MDA also created an interagency team to guide the program's development and implementation. This team was comprised of individuals from the PCA, BWSR, and DNR. Each of these agencies brought their unique expertise to the table, ensuring the MAWQCP was designed and implemented in a manner that respects each agency's unique role in the state's agricultural arena.

The USDA Natural Resources Conservation Service (NRCS) has also been instrumental in developing the certification program. From the outset, the MAWQCP has partnered with NRCS to fund the installation of on-farm conservation practices, and in 2015, the MAWQCP received a competitive Regional

Conservation Partnership Program (RCPP) award of \$9 million to be disbursed over a period of four years. Through this award, the NRCS has worked seamlessly with MAWQCP staff to create processes and protocols to distribute financial assistance to farmers seeking certification and to jointly promote the program.

The Minnesota interagency team and advisory committee are still active and continue to provide the MDA with key insights on the operation and direction of the certification program. This is critically important to the long-term success of the MAWQCP. The NRCS also continues to play a primary role in delivering the program.

Assessment Process

The MAWQCP's nationally recognized method for identifying and mitigating agricultural risks to water quality has created a commonsense blueprint to recognize, reward, and incentivize farmers in their efforts to protect and improve Minnesota's waters. The MAWQCP's assessment process utilizes comprehensive tools and traditional conservation delivery methods to deliver certification services; however, the program's core service is putting landowners and producers in touch with conservation professionals to create individualized water-focused conservation plans that protect the environment.

The program's assessment process includes utilizing an online risk assessment tool. The tool was developed by MAWQCP staff as a first-of-its-kind method for identifying risks to water quality in every field and on any cropping system. Specifically, the tool analyzes nutrient management, tillage management, pest management, irrigation and water drainage management, and existing conservation practices. Data collected by the tool informs subsequent on-site inspections, ensuring no risks are missed and all are properly mitigated. All farm-level data collected during the assessment process is private and, per the MAWQCP's originating statute, subject to the highest level of data privacy afforded by the State of Minnesota.

The certification process is straightforward and easy for interested producers to navigate.

- **Contact** – A producer seeking certification contacts their local SWCD or participating private retailer and sets up an initial meeting.
- **Assess** – Local certification specialists meet with the producer to learn more about their operation and then begin identifying risks to water quality using the MAWQCP's risk assessment process.
- **Meet** – A certification specialist meets with the producer to go over the results of the initial baseline risk assessment. Together the certification specialist and producer create a plan, which often includes financial and technical assistance components, to mitigate any risks to water quality identified in a manner that works for the producer and the environment.
- **Verify** – The certification specialist conducts a field assessment to verify the results of the risk assessment and ensure that the plan the producer and certification specialist have created mitigates the risks to water quality.
- **Support** – The producer and the certification specialist stay in touch to ensure the producer is able to maintain their certification as they make changes to their operation.

The certification process is producer driven, occurring when a producer has time, and takes less than 10 hours on average for the producer. Importantly, there is no timeline for completing the process. Production agriculture is a complex and costly endeavor and the MAWQCP allows producers to mitigate risks to water quality at a pace, and in a manner, that makes sense for their operation. Most producers sign their certification contract within a few months of beginning the process but some have taken more than a year to complete the process.

Program Operations

The success of the program’s pilot phase led the Legislature to recommend the program begin statewide implementation in 2015, one year ahead of schedule. Through the pilot phase, the MAWQCP realized four crucial lessons:

1. Partnering with Minnesota’s SWCDs is key to the MAWQCP’s long-term success;
2. Each certification is different and needs to be tailored to the producer’s goals and timeline;
3. Crop advisors and retailers are often important sources of information for producers who can also help with the certification process; and,
4. Motivations for pursuing certification vary from producer to producer and should be accounted for when developing outreach and engagement strategies.

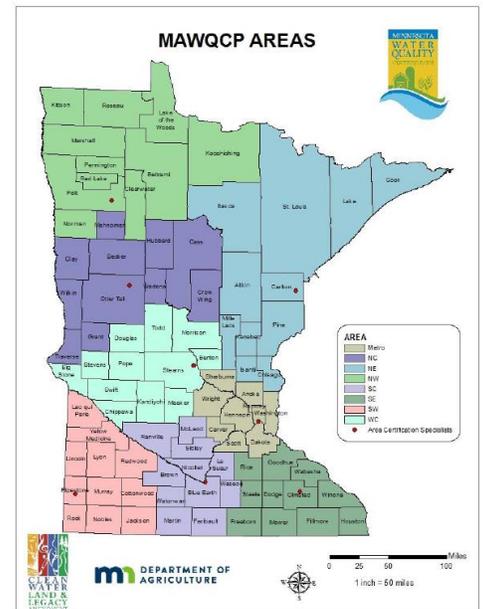


Figure 1: MAWQCP Regions

When the MAWQCP began statewide operations in July 2015, its first order of business was creating a regional structure that allowed local SWCDs to take the lead in delivering certification services (Figure 1). Working in collaboration with BWSR and the Minnesota Association of Soil and Water Conservation Districts (MASWCD), the MAWQCP created eight service regions. Each region consists of 9-12 counties. The regions each have a fiscal agent (either an SWCD manager or joint powers board manager) responsible for disbursing funds to local SWCDs and an Area Certification Specialist (ACS). The ACS is responsible for working with interested landowners and producers, and serving as the regional organizer for the MAWQCP. Each ACS is employed by an SWCD with pass-through funds from the MAWQCP’s annual budget (65% of the MAWQCP’s overall funding is passed through to support local partners and growers). In addition to employing an ACS for each region, the MAWQCP is committed to working with every one of Minnesota’s 88 SWCDs, and every SWCD that participates in promoting or delivering the program may submit invoices for staff time and materials related to program delivery.

The MAWQCP’s ACSs are the backbone of the program. The ACSs are directly responsible for conducting the MAWQCP’s risk assessment and then working with each producer to find a pathway to certification that treats every risk to water quality identified in the baseline assessment, and makes economic and agronomic sense for the producer. ACSs also help producers seeking certification navigate the MAWQCP’s dedicated pool of financial assistance from the USDA NRCS and the MDA’s financial assistance grant. In 2016, the MDA began offering financial assistance grants of up to \$5,000

or 75% cost share to producers seeking to become certified. These grants are designed to work in concert with and supplement financial assistance available from NRCS and SWCDs/BWSR to provide producers with the resources necessary to adopt best management practices that protect and improve water quality. In the two-and-a-half years since the MAWQCP Financial Assistance Grant program’s inception, 150 grants have been awarded to Minnesota farms for a total of \$578,273. With producer contributions and other leveraged financial assistance, these 150 grants are delivering \$1,372,478 in conservation practice implementation.

Aside from their work with interested producers and landowners, the ACSs also coordinate program implementation for the SWCDs in their region. Some SWCDs have taken the lead and are operating the program on their own, while others have opted to take less active roles. In order to provide further assistance to the ACSs and the SWCDs in delivering Certification, as well as to take advantage the experience of some seasoned conservation and agronomy professionals, the MDA has employed up to six certifying agents as Intermittent employees. Having these certifiers with up to 30 years of experience in the field has been of great value to the producers seeking sound agronomic and conservation advice. On the opposite end, the MDA has joined our partnering SWCDs to, at any one time, sponsor two Conservation Corps of Minnesota and Iowa individual placement apprentices to gain well rounded experience at the dawn of their careers in conservation.

By partnering with Minnesota’s SWCDs and creating a risk identification and assessment process that recognizes producers’ existing stewardship, while still incentivizing producers to increase their stewardship, the MAWQCP has created a program that is being embraced by Minnesota’s agricultural community. As of December 31, 2018, the MAWQCP has certified 692 farms (Figure 2), representing 450,696 acres (Figure 3).

Figure 2: MAWQCP Certified Farms

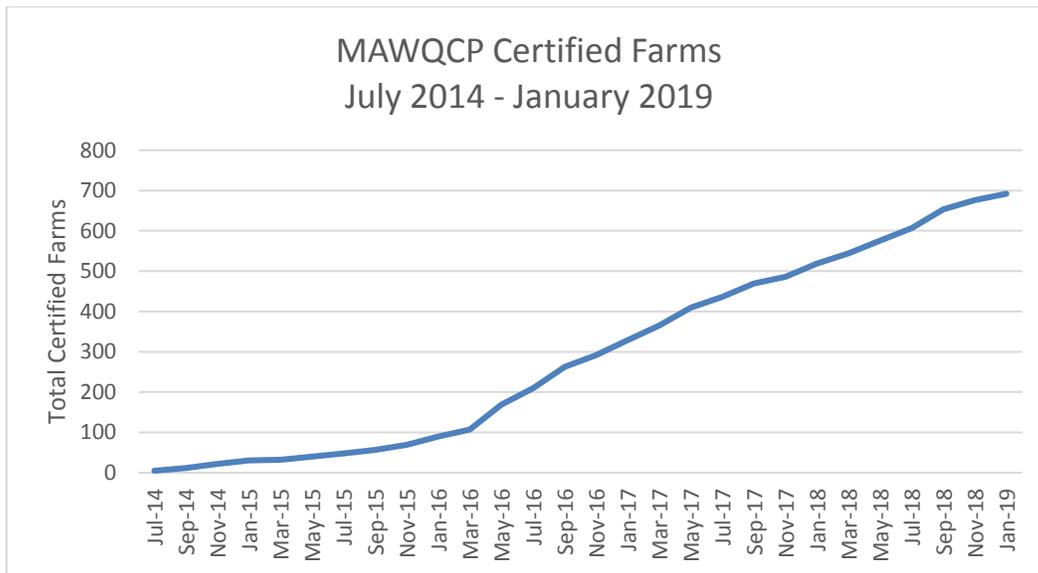
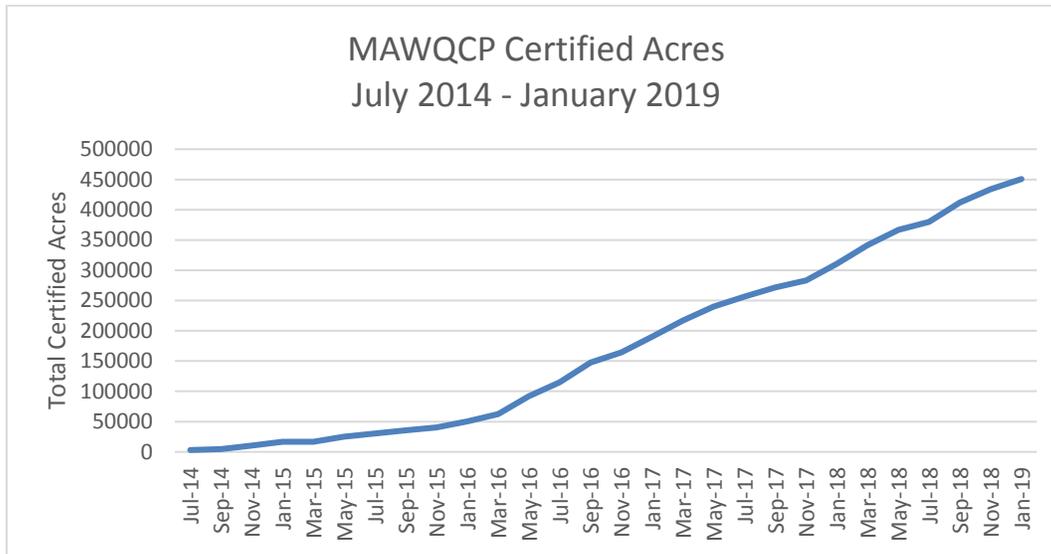
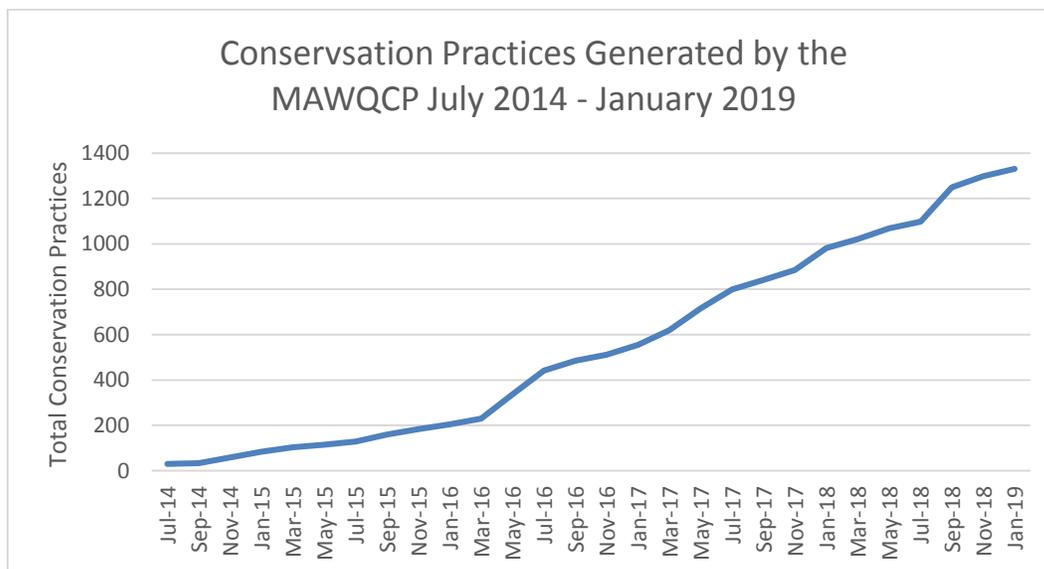


Figure 3: MAWQCP Certified Acres



In addition to tracking enrollment statistics, the MAWQCP also tracks the environmental benefits generated by certified farms. The environmental benefits of the program are calculated by running each new best management practice through BWSR’s pollution reduction estimator². At the close of 2018, the MAWQCP had directly generated 1,328 new conservation practices (Figure 4). To date, these practices are keeping 127 million pounds of soil on Minnesota fields annually, and keeping 50.2 million pounds of sediment and 30,000 pounds of phosphorous from entering Minnesota’s waters every year.

Figure 4: Conservation Practices Generated by the MAWQCP



² BWSR’s pollution reduction estimator is currently unable to calculate the water quality benefit of every best management and conservation practice utilized by the MAWQCP to mitigate agricultural risks to water quality, thus the environmental benefits reported in this section are likely underreported.

Partnerships

Delivering the MAWQCP through Minnesota’s SWCDs has been the single most important act in setting up a robust, viable, and trusted program. However, a program delivered through SWCDs alone does not have the capacity to help Minnesota meet the statewide water quality goals outlined in *The Minnesota Nutrient Reduction Strategy*. Not every farmer in the state utilizes their local SWCD, and SWCD staff time and funding is limited. MAWQCP program staff quickly realized during the statewide rollout that in order to have the ability to certify every interested producer and landowner in Minnesota, the program must be delivered through multiple channels and began aggressively pursuing partnerships with agribusinesses.

In May 2016, the State of Minnesota and Land O’Lakes Inc. signed an MOU establishing a formal partnership between the state and Land O’Lakes to jointly promote the MAWQCP and work together to certify additional producers among the 25,000 Minnesota farms served by Land O’Lakes. Since 2016, Land O’Lakes has assisted farmers with certification in the Minnesota Agricultural Water Quality Certification Program by engaging and educating farmers on benefits, acting as advisors in grant processes, and harnessing existing data collection capabilities. In 2018, Land O’Lakes hired a full-time staff person dedicated to recruiting and engaging Land O’Lakes clientele in the MAWQCP, along with conducting baseline water quality risk assessments. Also in 2018, the partnership between MAWQCP and Land O’Lakes received nationwide recognition with the first-ever public-private partnership award from the National Association of State’s Department of Agriculture (NASDA).



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Figure 5: Awards poster for the first-ever public-private partnership award presented by NASDA, with a photo of the certification presentation at Dorrich Dairy. From left to right: Greg Vold, Richard Vold, Dorothy Vold, Suzanne Vold, Brad Vold, of Dorrich Dairy; Brad Jordahl Redlin, Grant Pearson, of MAWQCP; Holly Kovarik, Pope SWCD.

In 2017, the Cedar River Watershed Project was formed as a collaboration between Land O’Lakes SUSTAIN business unit, the MAWQCP, CFS Cooperative, Mower County SWCD, Environmental Initiative, and Hormel Foods Corporation. Through this partnership, producers in the watershed work with CFS and Land O’Lakes SUSTAIN to implement conservation and agricultural practices to earn MAWQCP certification. The collaboration streamlines the implementation of conservation by

coordinating guidance, services, and resources amongst partners. The success of this partnership has already led to discussions of expansion into other watersheds.

In addition, the MAWQCP became a member of Field to Market: The Alliance for Sustainable Agriculture in 2018. As a member of Field to Market, the MAWQCP collaborates with a diverse group of grower organizations; agribusinesses; food, beverage, restaurant and retail companies; conservation groups; and, universities and public sector partners to focus on defining, measuring, and advancing the sustainability of food, fiber, and fuel production. The MAWQCP looks forward to being part of this national conversation about agricultural supply chain sustainability and the many opportunities for collaboration and innovation.

Support among the MDA's MAWQCP-partner agencies also remains strong. In 2018, the DNR made a commitment to certify all their owned and managed cropland, which totals approximately 15,000 acres. In addition, the MPCA offers certified livestock producers the ability to jump to the head of the permitting line when applying for new feedlot permits, and the BWSR approved the program as an alternative practice for complying with Minnesota's buffer law.

Outreach and Engagement

As a voluntary program, a robust outreach and engagement strategy has been essential to the MAWQCP's success. The MAWQCP has two target audiences: the primary audience is Minnesota's producers and landowners, and the secondary audience is the program's partners, including its partner state agencies and local SWCDs. The program has dedicated significant time and resources in building an outreach and engagement operation that reaches both audiences. The MAWQCP also works closely with the MDA's communications staff to generate press coverage for the certification program.

In January 2018, the MAWQCP conducted a survey of the first 500 certified producers to better understand the group, their motivations, and to inform outreach and engagement efforts. The survey received a high response rate of 50%. Notably, the top three reasons producers participated in the program were: (1) to demonstrate their water quality ethic, (2) to review their farm management practices, and (3) to obtain regulator certainty. Also, 99% said they would recommend MAWQCP to other growers. This information is particularly informative for the program's outreach and engagement efforts, and will continue to be used to frame various messages and approaches.

In 2018, MAWQCP staff conducted three statewide trainings for SWCD field staff (including ACSs), gave more than 24 presentations to various groups, and had a booth or exhibit at 11 different trade shows/conferences³. The trainings organized by the MDA have helped familiarize SWCD staff with the MAWQCP's risk identification and mitigation process, and have provided opportunities for MDA staff to alter the program based on on-the-ground input. The trade show/conference exhibits allowed the MAWQCP to directly interact with producers, landowners, and members of the public, building familiarity with and knowledge of the program.

There were two new communication pieces developed and disseminated in 2018. In January 2018, the MAWQCP launched the MAWQCP Insider, a quarterly e-newsletter that is sent to certified producers,

³ Please note these figures only track engagement and outreach efforts directly organized by MDA staff. Area Certification Specialists and partner SWCDs have also held their own engagement and outreach events that are not included here.

program partners, and individuals interested in the program. The newsletter contains information about the MAWQCP, including certification updates, opportunities, featured producers, events, news articles, and more. In its first year, there were 994 new subscriptions, resulting in a total of 2,322 subscribers at the end of 2018 (the original subscription list included 1,328 individuals). In addition to the MAWQCP Insider, staff developed an infographic that communicates certification data in a visual format that is accessible to a general audience. The infographic is updated monthly and includes the number of certified producers, acres, best management practices, and descriptions of select conservation practices in three regions of the state. This approach was used to provide context to the data and present it in a way that all audiences could understand the information. The infographic is printed as a handout at conferences, trade shows, and meetings, and is shared electronically.

Starting in 2017, the MAWQCP became involved with the We Are Water MN Traveling Exhibit to explore a new way of engaging with audiences statewide. We Are Water MN explores connections between the humanities and water through an exhibit, public events, and educator resources. The project is coordinated by five partner organizations, including the Minnesota Department of Agriculture. The exhibit includes profiles of MAWQCP certified producers which tell the story of their farm, conservation practices, and highlight the producer's certification. These stories will be a part of the exhibit as it travels to eight different communities across Minnesota in 2018 and 2019. Based on previous tours, the 2018-19 We Are Water MN exhibit is expected to receive over 7,000 visitors.

Calculating the exact impact of individual engagement efforts is difficult, but the aggregate impacts have manifested in other ways. The program's name recognition is increasing, and producers seek out certification as opposed to being sought after, as in the early statewide rollout of the MAWQCP.

Looking Forward

The MAWQCP is poised for another year of growth in 2019, including surpassing the milestone of 500,000 certified acres. There will be many more opportunities with Land O'Lakes, especially with their staff dedicated to recruitment for the MAWQCP and a new project aimed at syncing the MAWQCP Assessment Tool with Land O'Lakes' Trueterra system. Additionally, the MAWQCP is looking forward to working with the DNR to certify their approximately 15,000 acres of cropland. The MAWQCP will continue to participate in the Cedar River Watershed Partnership and its expansion, along with supporting Field to Market's national efforts to improve the sustainability of agricultural supply chains.

The MAWQCP will also use 2019 to further its commitment to reducing the per acre average cost of certification. Agricultural conservation, like agricultural production, is expensive. However, the MAWQCP has been able to decrease the average per acre cost of certifying a farm every year it has operated (Figure 6). Using a comparison of all funds appropriated through the life of the program to the acres certified, the initial \$1.5 million received in Fiscal Year (FY) 2014 equaled \$541.52 for the 2,770 acres certified in the program's inaugural year. By FY18, with totals of \$10.5 million across 374,488 acres, the per acre cost was reduced to \$28.04. These costs are well below the average costs for prominent USDA programs operating in Minnesota. The USDA spends more than \$200 million annually in Minnesota on conservation. In Federal FY17, the Conservation Reserve Program paid \$107.69/acre annually over a typically 10-year contract. The Environmental Quality Incentives Program cost \$204 per acre in FY17 in Minnesota. Further reflecting the reality of agricultural conservation

costs, in FY18 the Minnesota Conservation Reserve Enhancement Program (MN CREP) totaled \$49.2 million, or \$8,603 per acre.

Figure 6: Average Cost of Certification per Acre per Year

Fiscal Year	Total Appropriations	Total Acres Certified	Cost Per Acre
FY2014	\$1,500,000	2,770	\$541.52
FY2015	\$3,000,000	26,400	\$113.63
FY2016	\$5,500,000	109,667	\$50.15
FY2017	\$8,000,000	250,400	\$31.95
FY2018	\$10,500,000	374,488	\$28.04

In addition to providing conservation services at a lower cost, the MAWQCP also overcomes two traditional shortcomings of traditional conservation programs. The majority of agricultural conservation programs in the U.S. provide farmers limited-duration payments to employ a particular practice which may or may not be maintained when the short-term payments conclude. These programs also typically address conservation at a single location within a farm or production system rather than assessing and assisting treatment efforts for whole-farm conservation.

As a program that provides certified farms with 10 years of regulatory certainty, the MAWQCP was compelled to create a program that systematically identifies and then mitigates risks to water quality on a field-by-field basis—each and every field in a farm, and each crop grown on each field, must meet the MAWQCP’s criteria to become certified. The certification program’s regulatory certainty provision has also created the opportunity to provide conservation in a more efficient manner. Certified producers are provided with the necessary financial and technical assistance needed to mitigate risks to water quality, and incorporate those actions in their comprehensive farm management system that isn’t dependent upon, and extends beyond, short-term payments for conservation actions.