



ENVIRONMENTAL STEWARDSHIP DIVISION

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LETTER FROM THE DIRECTOR

This was a hard year for agriculture. Michigan farmers persevered through devastating weather and declining crop prices. Through it all, farmers continue to be great stewards of our land and water, while producing more than 300 different commodities.

The Michigan Department of Agriculture and Rural Development's (MDARD) Environmental Stewardship Division (ESD) is hard at work carrying out our mission to assist resource managers in implementing sound environmental stewardship practices that provide for a safe and healthy environment, a viable natural resource base, and a strong agricultural and forestry economy. It is my pleasure to provide the MDARD ESD 2019 Annual Report.

The 2019 activities continue to address our mission to administer programing that encourages environmentally sound agricultural practices and prevents agriculture-related pollution.

To this end, ESD is responsible for programs related to resource management of Michigan's working lands. The following report summarizes the considerable efforts of ESD's dedicated employees. To meet the challenges of an agricultural community, the division continues to assist with:

- securing movement of storm water in rural and urban settings;
- helping landowners manage privately held forest lands;
- protecting Michigan's tremendous farmland;
- helping producers preserve natural resources;
- minimizing nuisance conditions; and
- ensuring good housing for migrant workers.

I am very proud to be associated with ESD's hard-working staff and all they do to protect consumers, the environment, and the long-term viability of Michigan agriculture.

Jim Johnson
Division Director
Environmental Stewardship Division



Business Unit

PROGRAM MANAGER: Michael Hetherington | 517-284-5603 | Hetheringtonm1@michigan.gov

The Business Unit provides centralized office services within the Environmental Stewardship Division. Office services include budget development and monitoring, grant management, payment processing, procurement, performance measurement scorecards, equipment and technology support, timekeeping, office supplies, travel, coordination of Freedom of Information Act requests, and record retention. The centralized services allow program staff to focus on program implementation and process improvement.

IMPACT FOR MICHIGAN:

Prior to the creation of the Business Unit, operational tasks were distributed between three staff and four managers, all using different procedures and processes with operational redundancy. The Business Unit has standardized Environmental Stewardship Division's (ESD) procedures, thereby increasing quantity, quality, and timeliness within the division. The Business Unit also provides for continuity of operations through cross-training of staff on essential functions.

2019 ACCOMPLISHMENTS:

- Successfully completed closing schedule for the fiscal year while taking on new responsibilities for interagency transactions and asset reporting.
- Provided financial data and reports to program management within the division for strategic planning.
- Successfully originated and administered 119 grants in 17 different categories.
- Cross-trained staff to provide greater bench strength within the unit.

MEASURING SUCCESS:

Metric	2018	2019
Grants		
Specific types	16	17
Originated and processed	186	119
Payments processed	716	516
Spending Plan		
Appropriation line items	7	7
Funds managed – federal	4	4
Funds managed – state restricted	5	5
Staff Supported	66	66
Portion of Budget charged to GF	36.5%	34.5%
Office Management		
Computers Refreshed	3	4
Smart phone updates	10	35

2020 PROGRAM GOALS:

- Continue information management upgrades.
- Develop efficiency gains with the new SIGMA Enterprise software.
- Train grantees to use SIGMA for payment requests and reporting.
- Increase cross-training for bench strength.
- Professional growth for staff.



KEY STAKEHOLDERS

- ESD program managers and staff
- MDARD Budget Office
- Accounting Services Division
- Conservation districts
- Other state agencies
- Federal government

LEGAL AUTHORITY:

- Omnibus Budget Appropriations Bill, Public Act 252 of 1994, as amended



Conservation District Operations

PROGRAM MANAGER: John Switzer | 517-284-5606 | switzerj3@michigan.gov

Michigan's conservation districts are local units of government. They utilize local, state, federal, and private sector resources to deliver conservation programming designed to solve today's agricultural and natural resource problems. Conservation districts are the primary mechanism by which the Michigan Department of Agriculture and Rural Development (MDARD) delivers conservation programs to private landowners. MDARD helps conservation districts operate in a manner consistent with applicable laws and provides program delivery support.

IMPACT FOR MICHIGAN:

Michigan's agriculture and forest products industry is a \$117 billion sector of the state's economy. Conservation districts provide local delivery of the following MDARD programs that help protect and conserve Michigan's natural resources:

- Michigan Agriculture Environmental Assurance Program
- Forestry Assistance Program
- Conservation Technical Assistance Initiative
- Michigan Produce Safety Program
- Michigan Phosphorus Initiative

Conservation programming is most effective when delivered at the local level, by local people, with local technical assistance.

2019 ACCOMPLISHMENTS:

- Partnered with the Michigan Association of Conservation Districts to expand core trainings for conservation districts resulting in 68 board directors and district managers participating.
- Developed new approaches to helping conservation districts.
- Provided 79 instances of capacity development assistance to conservation districts.
- Certified 53 conservation district elections.
- Provided program delivery support to 52 conservation districts that collectively received more than \$8 million in grant funding for the delivery of MDARD programs.

MEASURING SUCCESS:

Metric	2016	2017	2018	2019
Number of conservation districts	77	75	75	75
Number of district managers	73	69	70	70
Total district staff	244	199	282	241
Number of districts receiving ESD grants	61	62	57	52
Total number of ESD grants to districts	124	135	127	94
Value of ESD grants to districts	\$5.9M	\$6.2M	\$6.65M	\$8.08M
ESD grant program progress reviews	323	692*	383	501
Conservation district board meetings attended	172	127	163	152
Conservation district employee search and selection assistance	44	35	40	27
Conservation district capacity building assistance	138	135	52	79
District employee development assistance	67	51	36	20

*Includes financial evaluations from the last quarter of fiscal year 2017 typically counted towards the following fiscal year.

2020 PROGRAM GOALS:

- Improve communication and cooperation with core conservation partners.
- Support ongoing efforts to restore operational funding to conservation districts.
- Complete the update to the conservation districts operations manual.
- Continue to develop new, quality training opportunities for conservation district directors and staff.
- Evaluate new approaches to providing more effective assistance to conservation districts.
- Develop a new method for measuring the impact of MDARD's assistance to conservation districts.



KEY STAKEHOLDERS

- Conservation district directors and staff
- Michigan landowners
- Federal and state partnering agencies
- Users of Michigan's natural resources

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 93 (Soil Conservation Districts), as amended



Farmland Conservation Easements

PROGRAM MANAGER: Elizabeth Brost | 517-243-7949 | broste@michigan.gov

A conservation easement is a voluntary agreement between a landowner and the State of Michigan that keeps land available for agricultural or open space uses. It provides the protection of the quality of farmland and natural condition of land and remains in private ownership. Conservation easement donations are considered a charitable donation and may provide a federal income tax deduction. Property taxes may be reduced based on lowering the assessed value of the land, and land is protected from the uncapping of the taxable value if it is transferred.

IMPACT FOR MICHIGAN:

The availability of permanent conservation easements on agricultural land and open space provides a focal point for local land use planning, zoning, and associated farmland preservation efforts. Agricultural and open space lands are an integral part of the state's economy. More than 26,000 acres of land in conservation easements contributed to the estimated \$104.7 billion of Michigan's annual economy.

2019 ACCOMPLISHMENTS:

- The Conservation Easement Program entered into five new agreements, covering 668 acres in 2019.
- Staff completed on-site monitoring of 137 easements for prohibited land-use changes.
- The Michigan Agricultural Preservation Fund held an application cycle, with \$2 million available to local farmland preservation programs. Nine farmland preservation programs submitted applications that will be scored and awarded in FY2020.

MEASURING SUCCESS:

Metric	2015	2016	2017	2018	2019
New Conservation Easements					
Conservation easements recorded	5	2	2	8	5
Acreage enrolled	656	87	276	480	668
Program Total Conservation Easements					
Conservation easements recorded	129	131	133	141	146
Local conservation easements	11	11	11	11	11
Acreage enrolled	24,758	24,815	25,038	25,518	26,186
Easement Monitoring					
Donated development rights	50	51	53	61	66
State purchase of development rights	50	50	50	50	50
USDA farm and ranch land	21	21	21	21	21
Total	121	122	124	132	137

2020 PROGRAM GOALS:

- Work with the agriculture community, Federal Agricultural Conservation Easement Program, township and county farmland preservation programs to award state grants for farmland conservation easements.
- Collaborate with American Farmland Trust, state land conservancies, townships and counties to help local farmland preservation programs become qualified for the Michigan Agricultural Preservation Fund.



KEY STAKEHOLDERS:

- Michigan farmers
- Local farmland preservation programs
- Consumers of Michigan grown food
- Those who enjoy the open space and farmland

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, as amended, MCL 324.36101 *et seq.*
- Conservation and Historic Preservation Easement Act, Sub Part 11 of Part 21 of the Natural Resources and Environmental Protection Act, 1994 Public Act 451, as amended, MCL 324.2140 *et seq.*
- Public Act 451 of 1994, as amended, MCL 324.36201 *et seq.*



Farmland Preservation

PROGRAM MANAGER: Mark Swartz | 517-284-5605 | swartzm@michigan.gov

The Farmland and Open Space Preservation Program or Public Act 116 (PA 116) Program preserves farmland from being developed for non-agricultural uses. Participating landowners may be entitled to receive a Michigan income tax credit for property tax in excess of 3.5 percent of total household income and exempt from some special assessments. Currently, there are 3.4 million acres of farmland enrolled in PA 116.

IMPACT FOR MICHIGAN:

PA 116 was established in 1975 in response to the loss of farmland associated with high property taxes. Michigan is one of the few states in the nation with market-based property tax assessments. Agricultural lands near developing urban areas were being taxed based on what their land would sell for if converted into housing developments or strip malls. As a result, Michigan was losing cropland at an average rate of six percent per year. Michigan's food and agriculture sector contributes \$104.7 billion to the state's economy.

2019 ACCOMPLISHMENTS:

- Completed conversion of thousands of paper documents to electronic files, thus increasing customer response time for requests.
- Eliminated backlog of requests and currently reviewing all requests within 120 days of receipt.
- Regenerated approximately 400 incomplete historical requests for landowners in new database.
- Developed and distributed customer satisfaction survey to landowners and stakeholders to gauge their experience with clarity of instructions on forms, processes, and communication with office staff for continued program improvement.
- Supported the growing demand for renewable energy and diversifying revenue options for Michigan farmers by allowing commercial solar panels on farmland while ensuring it will continue to be preserved for agricultural use.

MEASURING SUCCESS:

Metric	2015	2016	2017	2018	2019
Applications submitted	529	652	569	500	721
New acreage enrolled	34,910	52,160	45,520	40,000	42,340
Transfer requests processed	687	738	1,674	3,219	1,707
Extension requests processed	1,639	1,457	2,294	2,705	1,666
Expiration requests processed	909	199	712	1,630	961
Total new or modified agreements recorded	3,082	2,725	7,644	9,573	5,937
Tax credits issued in previous year	\$44M	\$53M	\$51M	\$53M	\$60M

2020 PROGRAM GOALS:

- Review all requests within 60 days of receipt and notify landowners if additional information is needed to complete the processing.
- Process complete requests within 60 days of receiving the request in the office.
- Continue working with the Michigan Department of Transportation, Michigan Department of Natural Resources, and Center for Geographic Information to map parcels in the PA 116 Program in a Geographic Information System.
- Continue working with Michigan Department of Treasury on process improvements for the program.
- Update program forms and instructions to provide more clarity, based on feedback from the 2019 customer satisfaction survey.
- Begin developing instructional “how-to” videos to publish on program website.
- Increase outreach to educate stakeholders and promote the benefits of the PA 116 Program.

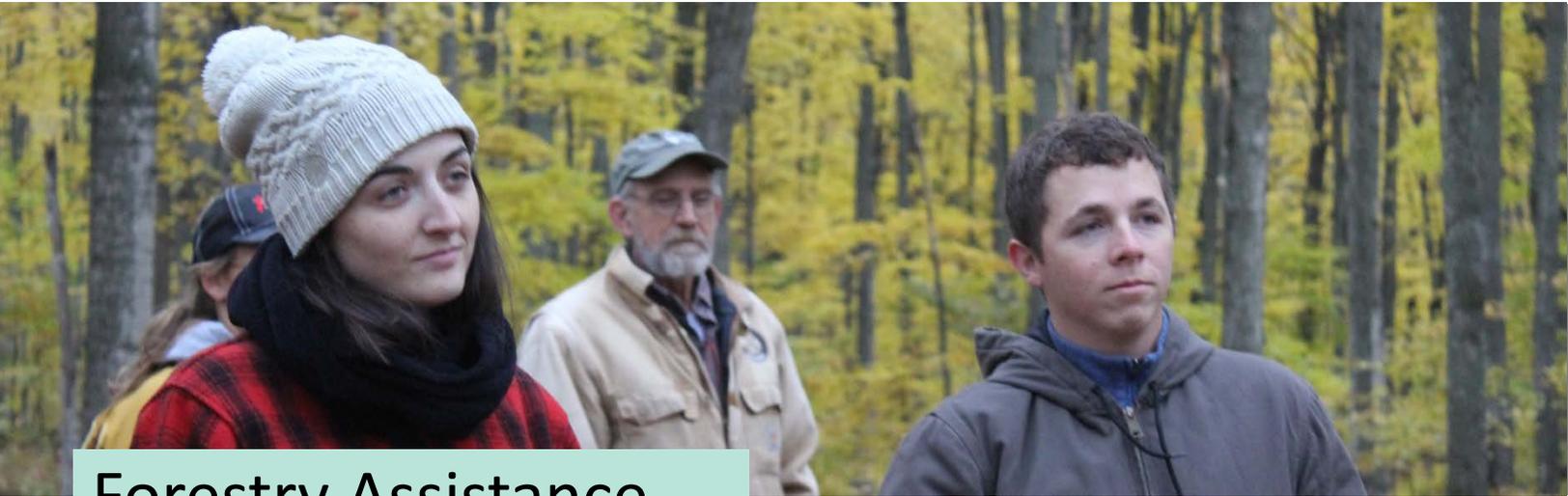


KEY STAKEHOLDERS:

- Michigan farmers
- Agri-businesses
- Consumers of Michigan grown food
- Rural and urban residents who enjoy the open space provided by active farmland

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 361 (Farmland and Open Space Preservation), as amended



Forestry Assistance

PROGRAM MANAGER: John Switzer | 517-284-5606 | SwitzerJ3@michigan.gov

The Forestry Assistance Program (FAP) is designed to help family forest owners manage their forests in an economically beneficial and environmentally sound manner. Conservation district foresters help family forest owners understand the value of actively managed forest resources. They also refer landowners to private sector professionals for management plan development, forest management, timber valuation, and harvests.

IMPACT FOR MICHIGAN:

Nearly 50 percent of Michigan's 19 million acres of forestland is owned by non-industrial private forestland owners (family forest owners). Family forest owners contribute 64 percent of Michigan's timber supply. The forest products industry contributes more than \$20 billion to the state's economy annually with the potential to contribute much more. Only one-third of the growth of timber on private forestlands is currently being harvested.

2019 ACCOMPLISHMENTS:

- Conducted 2,098 landowner site visits.
- Referred \$11.9 million in forest management projects for private landowners.
- Completed 71 risk assessments for the MAEAP Forest, Wetlands, and Habitat system.
- Completed 62 American Tree Farm Inspections.
- Delivered 398 outreach events targeted to family forest owners, foresters, and loggers.

MEASURING SUCCESS:

Metric	2015	2016	2017	2018	2019
Outreach events	346	337	407	368	398
On-site visits to family forest owners	2,012	2,202	2,037	2,007	2,098
Service referrals to the private sector	837	735	864	1,070	1,129
Service referrals to the public sector	627	649	663	907	797
Service referrals for timber harvest	360	295	335	413	426
Estimated value of referrals (\$M)	8.4	9.8	10.1	9.7	11.9
Acres referred to Qualified Forest	81,875	80,851	77,224	55,409	167,883

2020 PROGRAM GOALS:

- Increase awareness and enrollment in Michigan’s Qualified Forest Program.
- Diversify program funding through external grants and partnership agreements.
- Finalize and implement a master plan that identifies strategic objectives for the next 10 years.
- Conduct 2,000 on-site visits to forest properties.
- Conduct 1,500 referrals to the public and private sectors.

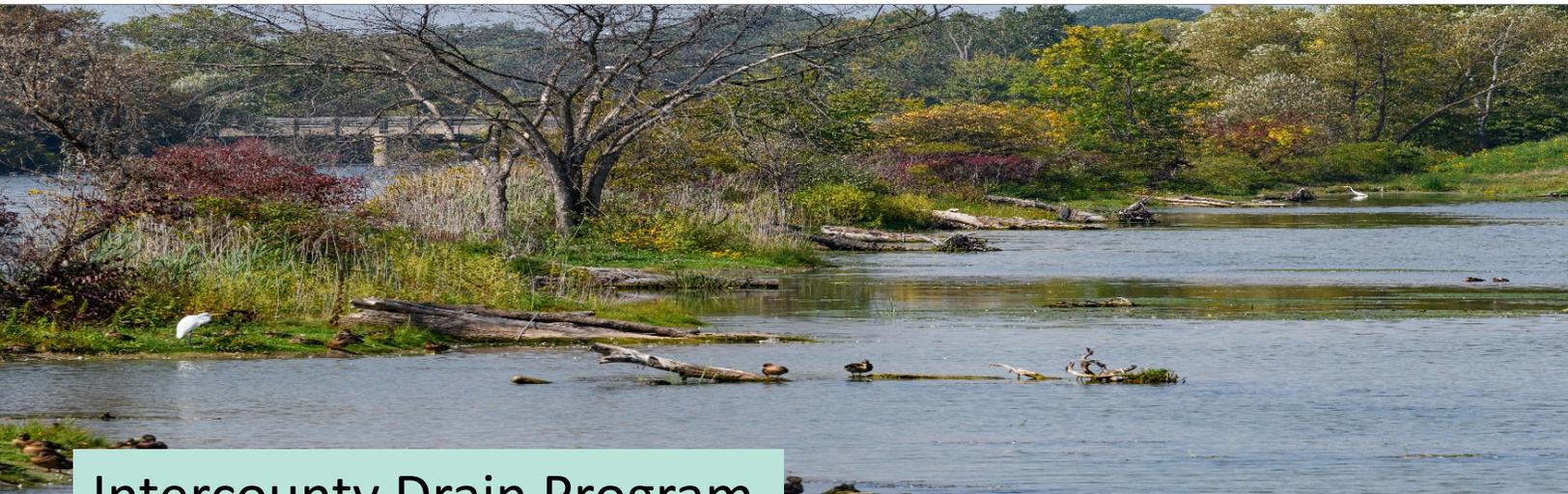


KEY STAKEHOLDERS

- Family forest owners
- Private sector professional foresters
- Michigan’s forest products industry
- Local units of government
- Conservation districts
- Forestry, wildlife, and conservation advocacy groups

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 93 (Soil Conservation Districts), as amended



Intercounty Drain Program

PROGRAM MANAGER: Michael R. Gregg | 517-284-5622 | greggm@michigan.gov

There are more than 1,000 intercounty drainage systems in Michigan with an estimated combined length of more than 6,000 miles, serving approximately six million acres. Each of these drainage systems is governed by a drainage board that administers the proceedings to establish, improve and maintain storm drains and sanitary sewers serving two or more counties under the Michigan Drain Code. The Michigan Department of Agriculture and Rural Development (MDARD) serves as chair for each of these boards.

IMPACT FOR MICHIGAN:

County and intercounty drains are the prerequisite infrastructure for Michigan's economic development. They have played a key role in the development of agriculture, roads and highways, residential, and commercial properties by removing excess soil moisture, reducing flood impacts, and improving public health. Michigan has more than 35,000 miles of legally established "public" drains serving more than 17 million acres of agricultural and urban lands and roadways.

2019 ACCOMPLISHMENTS:

- All program staff completed a weeklong facilitated Lean Process Improvement (LPI) analysis and recommended improvements for intercounty drain maintenance, many of which were implemented.
- Conducted 16 public hearings in response to 13 petitions by property and public corporations with project cost estimates of more than \$95 million.
- Administered 24 new and ongoing drain projects and more than 120 drain maintenance activities, with an estimated combined cost of more than \$140 million.
- Conducted 504 drainage board public meetings in compliance with the Open Meetings Act notice requirements for project management including financing, legal, engineering and construction management.
- Achieved final completion of the \$170 million, 10-year Oakland Macomb Interceptor project that rehabilitated 22 miles of sanitary sewer tunnel and pump station emergency repairs on a system that serves 830,000 residents to prevent catastrophic collapse, basement flooding and discharge of raw sewage to Lake St. Clair.

MEASURING SUCCESS:

Metric	2015	2016	2017	2018	2019
Miles of new or improved drains	122	120	118	104	118
Miles of drains maintained	131	233	241	213	229
Acres affected	785,000	876,000	857,000	825,000	958,000
Public meetings chaired	288	345	439	525	504
Project costs	\$92M	\$102M	\$94M	\$96M	\$139M
Counties served	33	36	41	38	37

2020 PROGRAM GOALS:

- Initiate the development of a project database to conduct and report program output metrics more efficiently and to implement LPI outcomes.
- Implement the memorandum of understanding with State Archivist for the cleaning and digitizing of more than 5,000 current and historic files and thousands of pages of district maps and construction plans.
- Continue to provide oversight and input to Spicer Group for the development of a spatial database and Geographic Information System of all intercounty drains/districts.
- Monitor impacts of historic Great Lakes and inland water levels and provide timely response to protect infrastructure and property flooding in impacted drainage districts.



KEY STAKEHOLDERS

- County drain, water resource, and public works commissioners
- Agricultural, residential, commercial property owners
- Cities, villages, and townships
- County road commissions
- Michigan Department of Transportation
- Michigan Department of Environmental Quality

LEGAL AUTHORITY:

The Drain Code of 1956, Public Act 40 of 1956, as amended, MCL 280.1 et seq.



Michigan Agriculture Environmental Assurance Program

PROGRAM MANAGER: Joe Kelpinski | 517-284-5608 | kelpinskij@michigan.gov

The Michigan Agriculture Environmental Assurance Program (MAEAP) is dedicated to helping Michigan's farmers protect the environment in a manner that is performance based and cost effective. MAEAP brings together training, risk assessment, technical assistance, conservation practice support, engineering, cost-share, and agency verification in an industry lead partnership dedicated to pollution prevention. It is a legislated certainty program with incentives for farmers to become verified under the program.

IMPACT FOR MICHIGAN:

Michigan is surrounded by 20 percent of the world's available freshwater. It is imperative for current and future generations that the most effective water protection strategies are implemented. Michigan's agriculture industry has taken a lead in supporting MAEAP, which is funded primarily by fees on pesticides and agricultural fertilizers.

2019 ACCOMPLISHMENTS:

- Celebrated reaching the goal of 5,000 verifications, which was set in 2011 when the program was codified into law.
- Finished fiscal year 2019 with 5,372 verifications, an 11 percent increase over fiscal year 2018
- Had 533 new verifications in fiscal year 2019
- Additional accomplishments are detailed in subsequent reports
 - Conservation Technical Assistance Initiative
 - Phosphorous Initiative
 - Clean Sweep
 - Education
 - Recycling
 - Spill Response
 - Water Monitoring
 - Water Use
 - Aquifer Dispute

MEASURING SUCCESS:

Metric	2017	2018	2019
Verifications	637	511	533
Completed risk assessments	1,538	1,678	1,852
Sediment stabilized (tons)	163,526	318,337	414,714
Phosphorus contained (pounds)	283,487	547,049	673,535

2020 PROGRAM GOALS:

- Develop new database platform to capture program achievements.
- Implement two new grants to increase producer involvement in Western Lake Erie Basin and Saginaw Bay areas of the state.
- Achieve 500 new verifications and 550 for fiscal year 2020.
- Achieve 6,000 total verifications by end of calendar year 2020.



KEY STAKEHOLDERS

- Farmers and agribusiness
- Michigan Farm Bureau
- Commodity groups
- Conservation districts
- Michigan residents

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 82 (Conservation Practices) and Part 87 (Groundwater and Freshwater Protection), as amended
- Public Acts 1 and 2 of 2011, as amended



MAEAP Conservation Technical Assistance Initiative

PROGRAM MANAGER: Laura Doud | 517-898-4041 | doudl@michigan.gov

The Conservation Technical Assistance Initiative (CTAI) program provides technical assistance to landowners interested in implementing conservation practices on their land. The CTAI program is a partnership between federal, state, and local units of government, working together to assist farmers and rural landowners. The program assists conservation districts in their efforts to help Michigan residents better understand, plan, manage, protect, and utilize their natural resources.

IMPACT FOR MICHIGAN:

The engineering and construction oversight provided by CTAI brought in \$10.8 million in federal revenues into Michigan that otherwise would have been allocated to other states. CTAI supports farmers' efforts to implement the conservation practices needed for verification under the Michigan Agriculture Environmental Assurance Program. The implementation of these practices spurs the local economy through the purchase of materials and the use of local contractors.

2019 ACCOMPLISHMENTS:

- CTAI employees provided assistance on 55 different types of conservation practices.
- 746 conservation practices were designed or implemented across 46 Michigan counties.
- More than \$10.8 million was made available to Michigan landowners by the CTAI program.

MEASURING SUCCESS:

Metric	2015	2016	2017	2018	2019
Counties Served	40	44	51	45	46
Engineering Staff (FTEs)	5	5	5	5	5
Soil Conservationists (FTEs)	9	9	9	9	9
Practices Designed or Implemented	528	644	625	746	975
Federal Cost Share	\$6.5 M	\$6.5 M	\$5.3 M	\$7 M	\$10.8 M

2020 PROGRAM GOALS:

- Continue to work with partners to determine the best placement and types of technical assistance needed across the state.
- Hire 10 program assistants to aide in the delivery of technical assistance.



KEY STAKEHOLDERS

- Farmers
- Agriculture industry groups
- Michigan Farm Bureau
- Commodity groups
- Conservation and environmental groups

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 82 (Conservation Practices) and Part 87 (Groundwater and Freshwater Protection), as amended



MAEAP Phosphorus Initiative

PROGRAM MANAGER: John Switzer | 517-284-5606 | switzerj3@michigan.gov

The Phosphorus Initiative is a cooperative effort between the Michigan Department of Agriculture and Rural Development (MDARD) and the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) to accelerate the implementation of conservation practices that are part of the Great Lakes Restoration Initiative. The objective is to provide technical assistance, conservation planning, practice design and implementation of conservation practices that reduce phosphorus and sediment. The program is funded through a Contribution Agreement between MDARD and USDA NRCS and delivered by local conservation districts.

IMPACT FOR MICHIGAN:

Conservation programming is most effective when delivered at the local level, by local people, with local technical assistance. This program enhances conservation districts' ability to direct local, state and federal resources that increase the adoption of voluntary conservation practices by private landowners resulting in reduced soil erosion, protection of topsoil and improved water quality in priority areas.

2019 ACCOMPLISHMENTS:

- Provided more than 660 landowners with onsite conservation assistance.
- Developed 125 conservation plans covering 50,667 acres.
- Assisted with the development and implementation of 160 new Farm Bill contracts and the continued implementation and maintenance of 296 existing contracts.
- Delivered more than \$3 million in financial assistance to landowners through federal Farm Bill programs.
- All agreement deliverables and accomplishments have been met and exceeded with one year of funding for technical assistance remaining.

MEASURING SUCCESS:

Metric	2018	2019
Conservation District Technical Staff Employed	4	4
Number of Field Visits and On-site Technical Assistance	374	663
Number of Conservation Plans Developed	61	125
Acres Under New Conservation Plans	30,831	50,667
Number of New Farm Bill Contracts Implemented	79	160
Number of Existing Farm Bill Contracts Maintained	132	296
Federal Cost Share Provided	\$901,427	\$3,016,907
Field Days and Outreach Events	15	20

2020 PROGRAM GOALS:

- Support technical staff employed by conservation districts under the Phosphorus Initiative agreement.
- Further exceed the agreement deliverables measuring the delivery of on-site technical assistance, development of conservation plans, and assistance on new and existing Farm Bill contracts.
- Renew/extend the agreement with NRCS to allow for continued, local technical assistance targeting phosphorus and sediment reduction in critical watersheds delivered through Conservation Districts.



KEY STAKEHOLDERS

- Michigan landowners
- Federal and state partnering agencies
- Conservation districts

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 93 (Soil Conservation Districts) and Part 87 (Groundwater and Freshwater Protection), as amended



MAEAP Clean Sweep

PROGRAM MANAGER: Abigail Eaton | 517-284-5612 | eatona@michigan.gov

The Michigan Clean Sweep program helps protect the state's natural resources by facilitating the proper disposal of outdated, unused, or unwanted pesticides. Permanent pesticide drop-off sites operated by local staff and frequently coordinated with local hazardous waste programs have been a key to program success. The state's conservation districts provide technical assistance by arranging special collection events in areas not typically served, expanding the reach of some permanent sites. Pesticide disposal costs are covered by the Michigan Agriculture Environmental Assurance Program.

IMPACT FOR MICHIGAN:

The Michigan Clean Sweep program makes it easier for farmers and other homeowners to dispose of pesticides from old barns, basements, homes, and sheds. Investigations of environmental contamination from chemicals can cost tens of millions of dollars, last for many years, and require remediation that may cost more than the investigation. This program helps ensure that the state and its citizens avoid additional costs of accidents, fires, floods, and other disasters.

2019 ACCOMPLISHMENTS:

- Collected more than 224,922 pounds of pesticide – a program record!
- Continuing upward trend in collection numbers.
- Satellite collections held in 17 counties sponsored by and in addition to permanent counties.

MEASURING SUCCESS:

Metric	2014	2015	2016	2017	2018	2019
Clean sweep permanent sites	18	18	18	18	17	17
Pesticides collected (pounds)	176,970	173,483	179,470	194,039	184,081	224,922
Disposal program costs covered (\$)	240,859	207,520	230,610	200,000	230,952	270,845

2020 PROGRAM GOALS:

- Add 1-2 permanent sites
- Extending reach to surrounding counties through 17 satellite collections
- Collect and dispose 180,000 pounds of pesticides
- Develop additional procedures that reduce per pound collection costs for grantees and vendors

KEY STAKEHOLDERS:

- Agriculture industry groups
- Michigan agri-business
- Greenhouse industry
- Residential pesticide users
- Local hazardous waste program

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 82 (Conservation Practices) and Part 87 (Groundwater and Freshwater Protection), as amended
- Public Acts 1 and 2 of 2011, as amended





MAEAP Education for Farmers and Technicians

PROGRAM MANAGER: Joe Kelpinski | 517-284-5608 | kelpinskij@michigan.gov

The Michigan Agriculture Environmental Assurance Program (MAEAP) is a nationally recognized proactive environmental assurance program serving Michigan's agricultural industry. Interested farmers enter the program through participation in what is known as a MAEAP Phase 1 training event. These local and statewide events provide farmers with information on participation in MAEAP, as well as associated environmental and risk mitigation topics.

IMPACT FOR MICHIGAN:

Phase 1 events cover environmental practices allowing farmers to qualify for continuing education credits for pesticide use licenses. These events are offered by MAEAP partners, technicians, and online.

2019 ACCOMPLISHMENTS:

- Held 155 Phase 1 meetings for farmers across the state.
- Hosted 6,662 farmers at Phase 1 events.
- Enrolled 533 farms that signed up at Phase 1 event.
- Hosted six technician specific trainings.

MEASURING SUCCESS:

Metric	2017	2018	2019
Phase 1 trainings held for farmers	137	140	155
Attendees at Phase 1 events	7,742	13,555	6,662
Farmers/landowners that enrolled in MAEAP	709	623	533
Trainings held for technician	15	11	6

2020 PROGRAM GOALS:

- Restructure training coordination and facilitation
- Increase training opportunities for technicians



KEY STAKEHOLDERS

- Farmers
- MAEAP technicians
- Educational partners

LEGAL AUTHORITY:

Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 82 (Conservation Practices) and Part 87 (Groundwater and Freshwater Protection), as amended, and Public Acts 1 and 2 of 2011, as amended



MAEAP Pesticide Container Recycling

PROGRAM MANAGER: Abigail Eaton | 517-284-5612 | eatona@michigan.gov

The Michigan Department of Agriculture and Rural Development (MDARD), the Michigan Agribusiness Association, the Ag Container Recycling Council, and G. Phillips and Sons LLC form a partnership designed to promote the proper cleaning and recycling of pesticide containers. Information on proper container rinsing techniques and recycling locations is distributed by the partnership to pesticide users. A network of agribusinesses and conservation districts are available for the collection and recycling of properly cleaned plastic containers into appropriate post-consumer products. Containers up to 56 gallons in size are accepted.

IMPACT FOR MICHIGAN:

The Michigan Pesticide Container Recycling Program decreases the likelihood that unclean or improperly stored containers will leach pesticide residue into the environment. It also reduces environmental and human health risks by promoting safe container rinsing practices. Plastics can be recycled or converted to other beneficial uses rather than taking up valuable landfill space.

2019 ACCOMPLISHMENTS:

- In 2019, a total of 280,430 empty, properly cleaned pesticide containers collected and recycled. This is a record for the Michigan program. It exceeded 2018 collections by 64,000 pounds, or 33 percent, and continues the program's upward trend.
- 55 agribusinesses and other pesticide end-users participated.
- 2019 also marked the milestone of 200 million pounds of containers collected nationwide by the partnership since 1992.

MEASURING SUCCESS:

Metric	2015	2016	2017	2018	2019
Pesticide containers recycled (pounds)	66,281	103,989	175,316	216,408	280,430
Agribusinesses collecting containers	23	29	43	43	55

2020 PROGRAM GOALS:

- MDARD will continue outreach to agribusinesses to continue increasing participation with G. Phillips & Sons LLC services.
- Maintain collections at more than 210,000 pounds.
- MDARD and Michigan Department of Environment, Great Lakes, and Energy are researching industry need, feasibility and pilot programs for collection and recycling of other agricultural plastics through a grant from the Michigan Recycling Coalition. These include silage wrap, mulches, and greenhouse covers.



KEY STAKEHOLDERS

- Agriculture industry groups
- Michigan agri-business
- Greenhouse industry
- Conservation districts
- Ag Container Recycling Council

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 87 (Groundwater and Freshwater Protection), as amended



MAEAP Spill Response

PROGRAM MANAGER: Jack Knorek | 517-243-0072 | knorekj@michigan.gov

The Spill Response Program provides technical assistance for agri-chemical and manure spills, including the approval of land application of spilled materials at agronomic rates. Individuals with a pesticide, fertilizer, or manure spill can call the Michigan Department of Agriculture and Rural Development (MDARD) Spill Response line at 800-405-0101. An agreement between MDARD and the Michigan Department of Environment, Great Lakes, and Energy allows for MDARD to take the lead in the state's response to agri-chemicals and manure. This voluntary program allows agricultural producers to minimize or eliminate environmental contamination resulting from a spill incident.

IMPACT FOR MICHIGAN:

Michigan's farmers seek to raise food, feed, and fiber in a cost-effective and environmentally sensitive manner. The Spill Response Program provides support to address both aspects when accidents occur. While rare, accidents involving pesticides and/or fertilizers can present significant environmental risk.

2019 ACCOMPLISHMENTS:

- Responded to and properly mitigated the impacts of seven ag-chemical spills.
- 13,200 pounds of spilled products were safely land applied.

MEASURING SUCCESS:

Metric	2017	2017	2018	2019
Spill incidents reported	8	11	7	7
After action reviews completed	-	-	-	7
Agronomic application of spilled materials (pounds)	480	13,953	72,000	13,200
Landfill/incineration of spilled materials (pounds)	2,185	0	30,000	3,895

2020 PROGRAM GOAL:

- Conduct after-action interviews within two weeks of each incident.



KEY STAKEHOLDERS

- Agricultural suppliers and producers
- Environmental advocates and regulators
- Michigan consumers

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Parts 83 (Pesticide Control) and 85 (Fertilizers)



MAEAP Water Monitoring

PROGRAM MANAGER: Robert Pigg | 517-284-5611 | piggr@michigan.gov

The Water Monitoring Program is the only program in Michigan routinely testing water quality in privately-owned (non-community) water wells. Samples are analyzed for pesticides, volatile organic compounds, and nitrate contamination. Well owners with results indicating a water quality problem are provided with information on risks and steps to take to verify water quality safety. If a groundwater contamination problem is identified, the program works with local landowners to determine the extent and severity of the problem. In some cases, financial assistance can be provided for alternate water supplies.

IMPACT FOR MICHIGAN:

Pesticide contamination of groundwater has been detected at 104 of 4,764 sites sampled by the program in Michigan, or 2.2 percent of the sites sampled. Elevated nitrate levels have been identified at 17 percent of private sites tested for nitrate, and half of these contain nitrates above public drinking water standards. Contaminant concentrations in groundwater indicate the need for improving pesticide and fertilizer management by both homeowners and agriculture.

2019 ACCOMPLISHMENTS:

- Continued work on a privately funded multi-year research study evaluating the impact of the newly registered pesticide isoxaflutole.
- Took part in the federal and state multi-agency Michigan Water Quality Workgroup.
- Provided the US Environmental Protection Agency with information to be used in 20 pesticide registration reviews.

MEASURING SUCCESS:

Metric	2015	2016	2017	2018	2019
EGLE or MDARD Analytical Lab Analysis					
Wells Sampled	130	84	94	114	116
Pesticide Detections	1	1	3	1	0
Pesticide > Drinking Water Standards	0	0	0	0	0
Nitrate Elevated between 5 and 10 ppm	8	5	7	8	10
Nitrate over Drinking Water Standard of 10 ppm	8	5	8	4	8
Screening with Test Strips					
Water Screenings	707	932	567	825	778
Nitrate Elevated between 5 and 10 ppm	53	44	33	69	59
Nitrate over Drinking Water Standard of 10 ppm	46	67	47	54	39
*Households Notified of Drinking Water Risks	116	122	98	136	116

- Equals the total of pesticide detections and all nitrate detections over five parts per million (ppm)
- Nitrate levels reported as NO3-N (Nitrate as N)

2020 PROGRAM GOALS:

- Conduct at least one online and one in-person training in well monitoring procedures.
- Work with state colleagues and supervisors, growers, and other stakeholders to evaluate monitoring for neonicotinoid pesticides in Michigan groundwater.
- Report pesticide monitoring and detection information to EPA for use in pesticide reregistration reviews.



KEY STAKEHOLDERS:

- Domestic well owners and users
- Pesticide and nitrogen fertilizer users
- Pesticide registrants
- Local health departments
- State and federal partner agencies

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 87 (Groundwater and Freshwater Protection), as amended



MAEAP Water Use Reporting

PROGRAM MANAGER: Abigail Eaton | 517-284-5612 | eatona@michigan.gov

The Water Use Reporting Program requires all water users having a capacity to withdraw water quantities of 100,000 gallons per day or greater to report their use on an annual basis. Agricultural users report to the Michigan Department of Agriculture and Rural Development at no cost. All other industries report to the Michigan Department of Environment, Great Lakes, and Energy for a fee. Water users are required to submit their annual reports to the State of Michigan by April 1 of the following year.

IMPACT FOR MICHIGAN:

On December 13, 2005, the Great Lakes Governors and Premiers signed the Great Lakes-St. Lawrence River Basin Water Resources Compact (Annex 2001), implementing agreements to provide unprecedented protections for the Great Lakes-St. Lawrence River Basin. Annex 2001 stipulates that within five years of the effective date, each state will create a program for the management and regulation of new or increased large withdrawals to ensure an effective and efficient water management program. The Water Use Reporting Program is Michigan's solution to meeting Annex 2001.

2019 ACCOMPLISHMENTS:

- Managed reporting for the 2018 season for 1,919 user accounts, representing 3,767 farms that own or lease water use from more than 10,551 large capacity pumps.
- Worked with the Michigan Department of Technology, Management and Budget to troubleshoot issues with the rollout of a new database and to assist users with the transition.

MEASURING SUCCESS:

Metric	2014	2015	2016	2017	2018
Users submitting water use on-line	1,452	1,457	1,463	1,430	1,225
Pumps reported	7,996	8,207	8371	8637	7593
Withdrawal from groundwater (%)	77	76	77	77	77
Withdrawal from surface water (%)	23	24	23	23	23
Irrigated acres reported	553,889	566,112	595,576	598,311	512,838
Water withdrawal (billion gallons)	98	105	127	129	113
Water withdrawal (acre feet)	302,120	322,651	385,460	399,490	347,923

2020 PROGRAM GOALS:

- Improve interface used by agricultural large water quantity user to enter data.
- Reduce backlog of pump transfer requests and edits not be addressed in the previous reporting system.
- Increase the number of agricultural water users using the on-line system to report as required.



KEY STAKEHOLDERS

- Agricultural large quantity water use operations
- State governors and premiers of Canadian provinces in the Great Lakes Basin
- Great Lakes Commission
- Agriculture industry groups
- International Joint Commission
- Conservation Districts

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 327 (Great Lakes Preservation), as amended



MAEAP Aquifer Dispute Resolution

PROGRAM MANAGER: Abigail Eaton | 517-284-5612 | eatona@michigan.gov

The Aquifer Dispute Resolution program allows small quantity well owners to file complaints with the Michigan Department of Environment, Great Lakes, and Energy (EGLE) or the Michigan Department of Agriculture and Rural Development (MDARD) if their wells fail to furnish their normal water supply or provide potable water. Agricultural related complaints are investigated by MDARD. The investigation is intended to determine if there is a scientifically-based cause-and-effect between the pumping of the high capacity well and the failure or impairment of the small quantity well. If the high capacity well is found to be the cause, the State of Michigan will propose a remedy to resolve the dispute equitably.

IMPACT FOR MICHIGAN:

The program establishes a process for small quantity well owners to file a complaint with the State of Michigan to investigate when they feel their water supply has been compromised by drawdown from a high capacity well. Without the program, the only recourse is through the courts, under Common Law/Riparian Doctrine. The burden of proof in these legal cases can be expensive and lengthy.

2019 ACCOMPLISHMENTS:

- One complaint filed did not meet program requirements.
- Closed one case that carried over from the previous year.
- Developed an informational brochure to be distributed to local health departments.
- Lack of complaints filed reflects the exceptionally wet weather year experienced throughout Michigan.

MEASURING SUCCESS:

Metric	2016	2017	2018	2019
Complaints files	8	3	12	1
Informally facilitated remedies	1	0	0	0
Resolved/closed conflicts	3	1	11	1
Open complaints	4	1	1	0
Unresolved/disputed complaints	0	0	0	0
Number of invalid complaints	1	1	2	1
Cost to producers for resolution	\$12,441	\$8,000	\$31,590	0
Wells replaced or improved	4	11	8	0

2020 PROGRAM GOALS:

- Improve aquifer dispute resolution tracking process.
- Train more staff to respond to program related complaints.
- Continue to work with EGLE to develop better methods of obtaining information on potential drawdown impacts of large quantity withdrawals (requiring Geographic Information System) to better meet required response timeline.



KEY STAKEHOLDERS

- Small capacity drinking water well owners
- Large capacity irrigation well operators
- Private well drillers and pump installers
- Michigan Department of Environmental Quality

LEGAL AUTHORITY:

- Natural Resources Environmental Protection Act, Public Act 451 of 1994, Part 317 (Aquifer Protection and Dispute Resolution), as amended



Migrant Labor Housing

PROGRAM MANAGER: Majed Ghussaini | 517-284-5621 | ghussainiM@@michigan.gov

The Migrant Labor Housing Program is designed to ensure the safety of housing occupied by five or more migrant agricultural workers. Licensure indicates safe water supplies, fire and structural safety, proper sanitation facilities, proper food preparation, storage facilities, and waste treatment and disposal.

IMPACT FOR MICHIGAN:

Migrant workers play an important role in the planting, cultivating, harvesting and packaging of 38 labor-intensive crops grown in Michigan. These crops generate \$2.3 billion in farm gate revenues each year. Quality housing is needed to retain Michigan's reputation as a good place to work and attract this much needed seasonal workforce.

2019 ACCOMPLISHMENTS:

- Inspectors identified and ensured the resolution of housing violations and reviewed water sample results directly affecting human health, safety, and welfare of occupants.
- There were no reported housing related injuries in 2019.
- Worked with farms and local municipalities on migrant labor housing and local zoning issues.
- Assisted local municipalities in drafting and updating zoning ordinances to foster the establishment and operation of agricultural labor camps that comply with both Part 124 and local requirements.
- Staff developed and tested an electronic inspection system for use in 2020 licensing season.
- Effective partnership engagement with U.S. Department of Labor and other regulatory partners.

MEASURING SUCCESS:

Metric	2014	2015	2016	2017	2018	2019
Applications						
Not Opening	50	76	43	200	77	83
Opening	784	798	833	853	871	870
Inspections						
Licensing	971	1,014	1,136	1,132	1,110	1097
H2A	88	157	305	608	752	919
CAP-Follow up	108	357	480	558	510	535
Occupancy	713	718	820	830	843	829
Enforcement	4	3	12	10	2	6
Plan Review	44	84	154	180	111	82
Total*	1,771	1,934	2,401	2,443	2,236	2181
Licensing						
Camps	772	774	801	811	840	815
Units	3,836	3,944	4,147	4,046	4,278	4052
Capacity	23,583	24,100	24,862	25,054	26,166	25,215

* Inspections cover multiple components of camp operation. The total is less than the sum of the individual components.

2020 PROGRAM GOALS:

- Update electronic inspection system.
- Improve model housing plans supporting reduce cost/modular building technologies.
- Continue effort on document management to automate and expedite licensing.
- Update and improve program webpage.
- Work with partner agencies on understanding zoning laws to promote transparent unbiased application of zoning ordinances impacting agricultural labor housing in Michigan.



KEY STAKEHOLDERS

- Fruit and vegetable growers
- Migrant farm workers and advocates
- Consumer of fresh fruits and vegetables
- H2A guest workers program

LEGAL AUTHORITY:

- Public Health Code, Public Act 368, 1978, Part 124, as amended.



Migrant Labor Housing: H2A Guest Worker Housing

PROGRAM MANAGER: Majed Ghussaini | 517-284-5621 | ghussainiM@@michigan.gov

The Migrant Labor Housing Program is designed to ensure the safety of housing occupied by five or more migrant agricultural workers. Licensure indicates safe water supplies, fire and structural safety, proper sanitation facilities, proper food preparation, storage facilities, and waste treatment and disposal.

IMPACT FOR MICHIGAN:

The H-2A program allows U.S. employers or agents who meet specific regulatory requirements to bring foreign nationals to the United States to fill temporary agricultural jobs. Housing used by H2A guest workers in Michigan requires that they meet applicable standards seasonal workforce as part of the documentation of the H2A application. H2A workers play a vital role in the planting, cultivating, harvesting and packaging of 38 labor-intensive crops grown in Michigan that generate \$2.3 billion dollars in farm gate revenue each year.

2019 ACCOMPLISHMENTS:

- Met the growing H2A demands, including providing inspections and paperwork to support timely visa approvals.
- Staff met with farmers for consultations; held extensive communications with agents, farm labor contractors and the Foreign Labor Certification Office; planned reviews, inspections and established new camps and files that related to that procedure (infrastructure, zoning, local governments, etc.).
- The Program has absorbed these responsibilities with the same number of staff with no additional funding.

MEASURING SUCCESS:

Metric	2014	2015	2016	2017	2018	2019
Camps	52	90	135	257	346	437
Inspections	88	157	305	608	752	1005
Units Licensed	299	585	870	1,504	1,875	2,085
Licensed Capacity	1,623	3,293	4,879	8,880	11,383	13,116

2020 PROGRAM GOALS:

- Continue partnering with the State of Michigan Foreign Labor Certification Office (FLCO) and explore ways to improve the efficiency of inspection reporting delivery and communication.
- Continue to engage with stakeholders and regulatory agencies to better understand the ever-changing federal laws relevant to the H2A guest worker program.
- Provide timely inspections and plan reviews for growers and farm labor contractors seeking H2A workers.



KEY STAKEHOLDERS

- Fruit and vegetable growers
- Migrant farm workers and advocates
- Consumer of fresh fruits and vegetables
- H2A guest workers program

LEGAL AUTHORITY:

- Public Health Code, Public Act 368, 1978, Part 124, as amended.



Qualified Forest Program

PROGRAM MANAGER: John Switzer | 517-284-5606 | switzerj3@michigan.gov

The Qualified Forest Program (QFP) provides a property tax exemption for private landowners who actively manage their forestland for commercial harvest. The goal of the program is to fuel regional economies through timber harvest and individual tax savings.

IMPACT FOR MICHIGAN:

More than 10 million acres of forested land in Michigan is owned by “non-industrial” private landowners. These lands are currently harvested at one-third the rate of forest growth. Consequently, millions of dollars of timber that could be harvested is going unutilized. By helping landowners manage their forestland, it is estimated that the QFP will stimulate more than 900 additional forestry-related jobs, \$195 million in business revenue, and \$44 million in labor income.

2019 ACCOMPLISHMENTS:

- Enrolled 167,883 new acres, bringing total participation to 665,628 acres.
- Public Act 672 of 2018 increased the limitation of 1.2 million acres of qualified forest property that can be exempted to 2.5 million; eliminated the 640-acre cap on the number of acres that may be enrolled per local unit of government and landowner; clarifying the intent and improving the administration of the program. The legislative changes created additional opportunity for forest landowners to enroll in the program, further supporting the forest products industry.
- Streamlined and improved queries and functionality of the current database to provide meaningful data to partners in forestry.
- QFP and Forestry Assistance Program are continuing collaborative marketing efforts to landowners that may be eligible for program enrollment, based upon acreage and property classification. Targeted efforts resulted in a 10 percent response rate from potential QFP landowners.

MEASURING SUCCESS:

Metric	2014	2015	2016	2017	2018	2019
Applications Submitted	637	702	704	681	617	614
Forest Management Plans Received	669	647	547	587	546	604
Acres from Commercial Forest (DNR)	8,557	8,191	1,227	1,772	1,512	1,676
New Acreage Enrolled	73,065	81,875	80,851	77,224	55,409	167,883
Cumulative Acres Enrolled	217,223	299,099	367,593	427,959	483,368	665,628
Harvested Wood Products (cords)	19,585	67,091	381,401	112,298	275,402	93,347
Harvested Timber Value (dollars)	600,000	2,885,998	3,706,610	3,143,995	5,636,097	3,890,722
Revenue Received from 2 Mill Fee	131,687	203,142	278,775	342,114	414,437	-n/a-

n/a- Revenue received in 2019 does not reflect summer tax distributions which are collected in 2019.

2020 PROGRAM GOALS:

- Increase enrollment in the QFP by 100,000 acres for the 2021 tax year.
- Continuous improvements with QFP database to capture provisions set forth in PA 672, and to improve efficiencies in the processing time of applications and data management.
- Continue working with Forestry Assistance Program staff and other marketing partners toward the development and implementation of new and existing targeted marketing campaigns to raise awareness of the benefits of the QFP.
- Meet with forestry stakeholders and other groups (i.e., local units of government) to develop relationships, discuss the QFP and its benefits, and encourage collaborative efforts between the public and private sectors.



KEY STAKEHOLDERS

- Private forestland owners
- Forest plan writers
- Commercial foresters
- Conservation districts
- Forest products industry

LEGAL AUTHORITY:

- MCL 211.7jj[1] (general provisions)
- MCL 211.1033 (recapture tax imposition)
- MCL 211.1034 (recapture tax rate)
- MCL 324.51305 (private forest land enhancement fund)
- MCL 324.51306 (qualified foresters)
- MCL 380.1211 (exemption of qualified forest property)
- MCL 211.1091-211.1101 (transitional qualified forest)



Right to Farm Complaint Response

PROGRAM MANAGER: Ben Tirrell | 517-284-5618 | tirrellb@michigan.gov

The Right to Farm (RTF) program responds to nuisance complaints involving farms. Program staff evaluate farm activities to decide whether a farm is following the Generally Accepted Agricultural and Management Practices (GAAMPs). GAAMPs are guidelines for good farm management that also help promote a positive image of Michigan agriculture.

IMPACT FOR MICHIGAN:

Right to Farm Complaint Response assists in resolving nuisance issues related to farming operations. This promotes environmental protection, improved quality of life for non-farm rural residents, and a strong and stable agricultural industry.

2019 ACCOMPLISHMENTS:

- Conducted a record high of 193 new complaint response investigations.
- Developed new communication materials to help involved parties understand the complaint response process.

MEASURING SUCCESS:

Metric	2017	2018	2019
New complaints received	107	176	193
Initial inspections conducted within seven business days	85%	90%	86%
On-farm investigations	168	251	227
Complaint cases closed	88	250	173

2020 PROGRAM GOALS:

- Assess customer service through the deployment of surveys.
- Improve customer service and communication.
- Implement a new inspection data handling system.
- Attempt 100 percent of initial inspections within seven business days, with an average response of three days or less.
- Work with all stakeholders to understand and promote the Right to Farm Act, as well as implementing GAAMPs on Michigan farms.

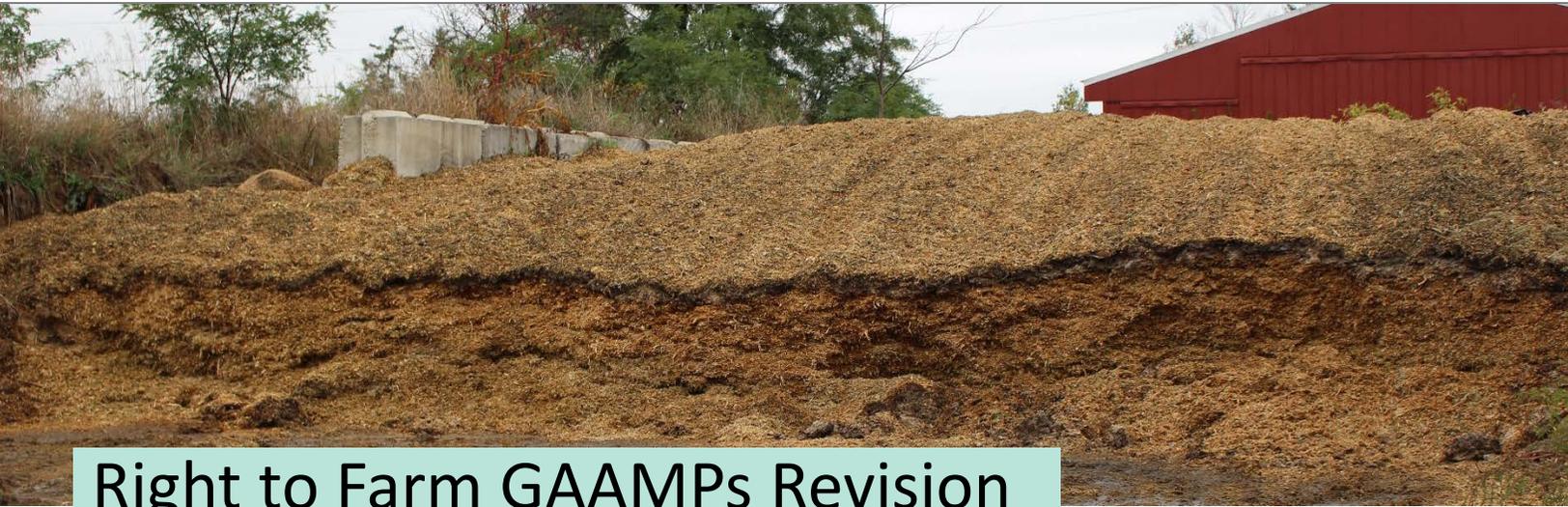


KEY STAKEHOLDERS

- Michigan farmers
- Non-farm rural residents
- Local governments
- Commodity organizations
- State and federal conservation and environmental agencies

LEGAL AUTHORITY:

- Michigan Right to Farm Act, Public Act 93 of 1981, as amended



Right to Farm GAAMPs Revision

PROGRAM MANAGER: Ben Tirrell | 517-284-5618 | TirrellB@michigan.gov

The Michigan Right to Farm Act provides broad definitions of a farm, its operations and products as well as a process for the development and adoption of Generally Accepted Agricultural and Management Practices (GAAMPs). GAAMPs are developed by technical advisory review committees and presented to the Michigan Commission of Agriculture and Rural Development for review and approval. The GAAMPs cover the following:

- Manure Management and Utilization
- Pesticide Utilization and Pest Control
- Nutrient Utilization
- Care of Farm Animals
- Cranberry Production
- Site Selection and Odor Control for New and Expanding Livestock Facilities
- Irrigation Water Use
- Farm Markets

IMPACT FOR MICHIGAN:

GAAMPs define socially and environmentally responsible farming practices used as the basis for conformance under the Right to Farm Act. Conformance with GAAMPs can be used as an affirmative defense against nuisance litigation. The number of task force meetings on each set of GAAMPs provides an indicator of the frequency of use as well as updates needed.

2019 ACCOMPLISHMENTS:

- Initiated annual reviews of all eight GAAMPs.
- Piloted a virtual training meeting for committee chairpersons.
- Revised the GAAMPs documents, including formatting enhancements.
- A public input meeting was conducted on October 22, 2019, to receive feedback and input on all draft GAAMPs.

MEASURING SUCCESS:

Review Meetings Held	2015	2016	2017	2018	2019
Manure Management and Utilization	3	2	1	2	2*
Pesticide Use and Pest Control	0	0	0	0	0*
Nutrient Utilization	2	0	0	0	0
Care of Farm Animals	0	1	1	1	1
Cranberry Production	0	0	0	0	0
Livestock Site Selection	5	5	2	4	2
Irrigation Water Use	0	0	0	1	0
Farm Markets	0	0	0	0	1

*Committee collaborated remotely or using virtual meeting technologies

2020 PROGRAM GOALS:

- Solicit additional public input with greater specificity via an online comment form.
- Increase consistency between the GAAMPs documents.
- Continue to improve facilitation of the review process by offering additional trainings, information, and technical support to the review committees.



Generally Accepted Agricultural and Management Practices for Site Selection and Odor Control for New and Expanding Livestock Facilities

January 2020
Michigan Commission of Agriculture & Rural
Development
PO BOX 30017
Lansing, MI 48909



KEY STAKEHOLDERS

- Michigan farmers and commodity organizations
- State and locally elected officials
- Michigan State University and AgBioResearch
- State and federal conservation and environmental agencies

LEGAL AUTHORITY:

- Michigan Right to Farm Act, Public Act 93 of 1981, as amended



Right to Farm Proactive Review

PROGRAM MANAGER: Ben Tirrell | 517-284-5618 | TirrellB@michigan.gov

The Right to Farm Program can assist farms of all sizes by reviewing the farm operation's conformance with Generally Accepted Agricultural and Management Practices (GAAMPs). The most intensive portion of this activity is in the siting of livestock facilities. This service is designed to help farmers properly plan, site, build, and maintain new and expanding livestock facilities. The Michigan Department of Agriculture and Rural Development works with the farm to evaluate all applicable management practices and facility designs, as well as the proximity to non-farm neighbors and existing land use considerations.

IMPACT FOR MICHIGAN:

On-farm production agriculture is the foundation of Michigan's \$104.7 billion food and agriculture industry, with livestock facilities generating more than \$8.2 billion in annual cash receipts. Yet, there are increasing social and environmental concerns regarding agricultural production in Michigan, especially animal agriculture. Right to Farm proactive reviews allow the industry sector to grow in a responsible way that minimizes nuisance to non-farm neighbors.

2019 ACCOMPLISHMENTS:

- Continued lean process improvement initiative, including launch of revised application materials.
- Processed 72 total applications, including six for livestock production facilities.
- Responded to 52 applications from small/non-livestock operations, a new record high.
- Proactive reviews approved in 2019 will annually generate:
 - \$65.3 million in economic activity
 - \$11.7 million in earnings for farm households
 - 659 ongoing full-time jobs
 - \$3.18 million in additional tax revenues

MEASURING SUCCESS:

Metric	2014	2015	2016	2017	2018	2019
New Site Selection Requests	58	46	50	49	15	6
New facilities	22	13	25	25	7	2
Expanding facilities	36	33	25	24	8	4
Final Approvals by Species						
Dairy	23	19	10	22	4	2
Swine	18	8	20	17	6	7
Poultry	7	16	18	9	3	5
Beef	6	3	1	0	2	0
Other	3	0	1	2	0	0
Small/Non-Livestock Reviews	10	37	23	30	49	52

2020 PROGRAM GOALS:

- Complete initial reviews for all new proactive requests within 20 business days.
- Development helpful management plan templates for small/non-livestock proactive reviews.
- Create a process for review and adoption of innovative odor control technologies for new and expanding livestock production facilities.
- Increase education, outreach, and guidance to the agricultural industry on GAAMPs, including those for Site Selection and Odor Control for New and Expanding Livestock Facilities.



KEY STAKEHOLDERS

- Michigan farmers
- Non-farm rural residents
- Local governments
- Commodity organizations

LEGAL AUTHORITY:

- Michigan Right to Farm Act, Public Act 93 of 1981, as amended



Right to Farm Biosolids

PROGRAM MANAGER: Steve Mahoney | 517-930-2966 | mahoneys@michigan.gov

Biosolids are nutrient-rich organic materials resulting from the controlled treatment of sewage sludge. Because of that treatment, biosolids can be safely recycled and applied to farm fields for crop production as fertilizers. While regulated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE), the Michigan Department of Agriculture and Rural Development provides education and technical assistance to farmers, locally elected officials, and other stakeholders on the use of biosolids as fertilizer for crop production.

IMPACT FOR MICHIGAN:

The land application of biosolids at agronomic rates saves Michigan farmers more than \$10 million each year in fertilizer costs. It also reduces municipal sewage treatment waste disposal costs by \$7.9 million each year.

2019 ACCOMPLISHMENTS:

- 64,000 dry tons of biosolids were applied over farmland, with a fertilizer value of \$6.4 million.
- Created banners for biosolids displays.
- Planned and attended the 2019 Michigan Biosolids Conference.
- Conducted a demonstration plot at the 2019 Agro Expo.

MEASURING SUCCESS:

Metric	2015	2016	2017	2018	2019
Biosolids applied (dry tons)	76,000	105,000	120,000	65,000	64,000
Biosolids application area (est. acres)	21,000	26,600	29,550	21,500	21,300
Nitrogen used as fertilizer (est. tons)	3,250	4,500	4,800	2,780	2,560
Phosphorus used as fertilizer (est. tons P ₂ O ₅)	3,795	5,290	6,900	3,220	3,170
Potassium used as fertilizer (est. tons K ₂ O)	330	456	600	282	278
Farm value as fertilizer (approx. N-P ₂ O ₅ -K ₂ O)	\$10M	\$14M	\$15M	\$8.5M	\$6.4M
Biosolids Conference Participants	80	60	-n/a-	105	155

*No conference in 2017

2020 PROGRAM GOALS:

- Provide education and information to conservation district technicians on the benefits of biosolids. Technicians can then provide education and targeted technical assistance to farmers and local officials in their districts.
- Participate in Michigan Water Environment Association's (MWEA) biosolids committee meetings, activities, and the biosolids conference subcommittee to plan the 2020 Michigan Biosolids Conference.
- Display Biosolids Education materials at the Michigan Townships Association Annual Conference, Agro Expo, and the Michigan Association of Conservation Districts Summer and Winter Conferences.
- Work with AgroLiquid staff to establish and maintain a biosolids demonstration plot.
- Work with Michigan State University Extension, MWEA, EGLE, and Michigan Farm Bureau to promote the beneficial use of biosolids.
- Develop new educational materials.

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, PA 451 of 1994, Part 24 Rules and Part 31, as amended

KEY STAKEHOLDERS

- Michigan Water Environment Association
- EGLE
- Michigan Farm Bureau
- MSU Extension
- Michigan Townships Associations
- Conservation Districts
- Local Crop Producers

