

Division Information

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Environmental Stewardship Division
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- Mission Statement:** The Environmental Stewardship Division (ESD) administers the Michigan Department of Agriculture and Rural Development's (MDARD) many programs that encourage environmentally sound agricultural practices and prevent agriculture-related pollution. ESD seeks to enhance commercial agriculture activities in Michigan, while protecting the environment and public health.

Background

Michigan Department of Agriculture and Rural Development
Environmental Stewardship Division

January 2014

Program	Contact	Telephone
Agri-chemical Spill Response	Jack Knorek	517-243-0072
Anaerobic Digester Operator Certification	Michelle Crook	517-284-5625
Conservation Easement Donations	Elizabeth Juras	517-284-5629
Conservation Reserve Enhancement	Stephen Shine	517-284-5606
Conservation Technical Assistance Initiative	Michelle Crook	517-284-5625
Farmland and Open Space Preservation	Rich Harlow	517-284-5627
Intercounty Drains	Michael Gregg	517-284-5622
Forestry Assistance	Stephen Shine	517-284-5606
Local and Designated Open Space Easement	Rich Harlow	517-284-5627
Michigan Agriculture Environmental Assurance	Jan Wilford	517-284-5608
Michigan Agriculture Environmental Assurance – Technical Assistance	Jan Wilford	517-284-5608
Michigan Agricultural Preservation Fund – Local Purchase of Development Rights	Elizabeth Juras	517-284-5629
Michigan Biosolids Land Application	Steve Mahoney	517-284-5620
Michigan Clean Sweep	Abby Eaton	517-284-5612
Michigan Conservation Districts	Stephen Shine	517-284-5606
Michigan Pesticide Container Recycling	Abby Eaton	517-284-5612
Michigan Turfgrass Environmental Stewardship	Jan Wilford	517-284-5608
Michigan Water Stewardship Program – Residential	Jan Wilford	517-284-5608
Migrant Labor Housing Inspection and Licensing	Majed Ghussaini	517-284-5621
Qualified Forest	Rich Harlow	517-284-5627
Right to Farm Environmental Complaint Response	Wayne Whitman	517-284-5618
Right to Farm Site Selection Verification	Wayne Whitman	517-284-5618
Soil Survey Program/Soils Interpretation	Erik Johnson	231-357-4323
State Purchase of Development Rights	Elizabeth Juras	517-284-5629
Urban Agriculture	Rich Harlow	517-284-5627
Water Monitoring	Bob Pigg	517-284-5611
Water Withdrawal Reporting	Abby Eaton	517-284-5612

Program: Agri-Chemical Spill Response

Coordinator: Jack Knorek, 517 - 243-0072, KnoreK@michigan.gov

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

Established: June 1995

Stakeholders and Key Representatives:

- Michigan farmers
- Agri-chemical suppliers
- Agri-chemical users
- Michigan consumers
- Michigan citizens

Purpose and Description of Program:

The Agri-Chemical Spill Response Program provides technical assistance with agri-chemical spills and oversees the 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. The information provided is relayed to non-regulatory MDARD staff with both hazardous materials and agronomic training. MDARD staff then provides guidance on the containment, collection, and disposal of the spilled materials. The land application of recovered materials saves millions of dollars in disposal costs without increasing environmental risks.

Deliverables and Outcomes

- 15 - 20 spill response events per year
 - 30% farmers
 - 55% commercial turf
 - 15% commercial applicators
- 350 agri-chemical spills since the beginning of the program
- 180,000 pounds of pesticides recovered
- 615,000 pounds of fertilizers recovered
- 1.2 million pounds of manure recovered

19 spills were successfully resolved in FY13, including 9 commercial turf companies, 6 private applicators, and 4 commercial agri-businesses. Michigan agri-chemical users realize that immediate reporting to the MDARD can be a real benefit to them in dealing with any pesticide, fertilizer, or manure release.

Program: Anaerobic Digester Operator Certification

Manager: Michelle Crook, P.E., 517-284-5627, CrookM@michigan.gov

Legal Authority: General Property Tax Act, Public Act 206 of 1893, as amended

Established: 2007

Stakeholders and Key Representatives:

- Farmers
- Michigan food processors
- Ethanol producers
- Michigan agri-businesses and construction companies
- USDA - Natural Resources Conservation Service

Purpose and Description of Program:

In December 2006, the General Property Tax Act was amended to allow for a property tax exemption for the on-farm production of methane from agricultural by-products. In order to receive the exemption, a producer must be verified under the Michigan Agriculture Environmental Assurance Program (MAEAP) and the operator of the system must be certified by the Michigan Department of Agriculture and Rural Development (MDARD) as “qualified” to operate the system. The MDARD is required under the Act to work with the Michigan Department of Environmental Quality (MDEQ) and Michigan State University (MSU) to develop the training program. A training manual and classroom program has been developed and peer reviewed. The complete training program was offered in 2010 and had 22 attendees. This is currently the only on-farm digester operator program in the United States. The U.S. Environmental Protection Agency (EPA) is in the process of reviewing the program for endorsement under the U.S. EPA AgSTAR Program. MSU has received requests from other states to perform the training program.

Recent Trends and Current Concerns:

This program should allow for continued successful operation of anaerobic digester systems and promote the development of new agriculture based digester systems. It is anticipated that the program will provide a level of assurance to the regulatory authority for the systems that are certified under this program. To date, Michigan has one farm that has met all the requirements of the program and qualified for the property tax exemption.

Program: Conservation Easement Donations

Coordinator: Elizabeth Juras, 517-284-5629, JurasE@michigan.gov

Legal Authority: Subpart 11, Conservation and Historic Preservation Easement of Part 21 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL Section 324.2140, *et seq.*

Stakeholders and Key Representatives:

- Private landowners
- Internal Revenue Service
- State Certified Appraisers
- Agricultural lenders

Purpose and Description of Program:

The Conservation Easement Donation Program permanently preserves valuable working lands and natural areas through landowner donations of their development rights. The State of Michigan enters into permanent conservation easements with landowners to restrict the use and development of prime and unique agricultural and natural areas. The easements are monitored on an annual basis and enforced by the State.

Program Outcomes:

- 37 easements held by the State of Michigan
- 5,359 acres of land preserved in perpetuity.

Recent Trends and Current Concerns:

IRS 2006 rules governing tax credits for donation of conservation easements changed in several ways to benefit those donating conservation easements. The allowable deduction was increased from 30 percent to 50 percent of adjusted gross income, and qualifying farmers could deduct up to 100 percent of their taxable income. The carry forward period for tax deductions was increased from 6 to 16 years. Congress continues to extend this benefit on a yearly basis.

**Michigan Department of Agriculture and Rural Development
Environmental Stewardship Division**

January 2014

- Program:** Conservation Reserve Enhancement Program
- Manager:** Stephen Shine, 517-284-5606, ShineS@michigan.gov
- Legal Authority:** Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 82 (Conservation Practices), as amended
- Established:** October 2000

Stakeholders and Key Representatives

- Farmers in CREP watersheds
- Pheasants Forever
- Ducks Unlimited
- Michigan United Conservation Clubs
- Land Conservancies and Land Trusts
- County Drain Commissioners
- U.S. Department of Agriculture
- U.S. Fish and Wildlife Service
- Department of Environmental Quality
- Department of Natural Resources
- Local Conservation Districts
- Michigan Farm Bureau

Purpose and Description of Program:

The Conservation Reserve Enhancement Program (CREP) was created to implement conservation practices on agricultural land to improve water quality, reduce soil erosion, and enhance and increase wildlife habitat. CREP is available in 4 priority watersheds including the Saginaw Bay, River Raisin, Lake Macatawa, and the Western Lake Erie Basin. Participants received enhanced cost-share and in some cases enhanced land rental rates. CREP is administered through a contractual agreement with the United States Department of Agriculture (USDA). Technicians employed through the Conservation Districts were a key part of promoting enrollment.

Program Metrics and Outcomes:

- 6,231 contracts established
- 73,887 acres of conservation practices
 - 35,377 acres in corridor practices
 - 20,865 acres in wetland restoration practices
 - 1,773 acres in field windbreaks
 - 15,872 acres of highly erodible land into cover crops
- \$15.2 million in federal cost-share to Michigan farmers

Recent Trends and Current Concerns:

- Commodity prices have had a direct impact on program enrollment. Until they had returned to a lower level more recently, enrollment in the program had declined.
- The CREP interagency partnership is working with USDA to expand CREP into the St. Joseph River Watershed covering an additional 5,000 acres.

Program: Conservation Technical Assistance Initiative

Manager: Michelle Crook P.E., 517-284-5625, CrookM@michigan.gov

Legal Authority:

- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 87 (Groundwater and Freshwater Protection), as amended
- The Farm Security and Rural Investment Act of 2008 (Farm Bill of 2008)

Established: 2005

Stakeholders and Key Representatives:

- Farmers
- Michigan agri-businesses and construction companies
- United States Department of Agriculture - Natural Resources Conservation Service
- Conservation Districts

Purpose and Description of Program:

Over the last several years, Congress has appropriated significant financial assistance to Farm Bill programs in Michigan. However, the revenue for technical assistance has not kept pace. Farmers and rural landowners have to wait for years for the technical assistance to implement their conservation practices and gain access to federal cost-share revenues. The Conservation Technical Assistance Initiative (CTAI) Program is designed to open the bottleneck in engineering and technical assistance; increase implementation of conservation practices; reduce risks to groundwater quality; and help farms obtain verification in the Michigan Agriculture Environmental Assurance Program (MAEAP).

Outcomes and Deliverables:

- 50 counties with enhanced engineering and technical assistance
- 5,449 conservation practices implemented to date
- 50 different types of conservation practices implemented
- \$61 million in federal cost share accessed
- \$139 million in farm investments in conservation practices

Key Issues:

At the beginning of FY 2014, the CTAI Program was temporarily suspended. This resulted in some staff being hired under a temporary contract with NRCS and other staff leaving for positions outside the program. A new agreement is scheduled to be signed with NRCS on July 1, 2014. This will reauthorize the program for one year with 14 positions, 5 engineers and 9 soil conservationists. The temporary loss of the program resulted in a lack of data for the time period of October 1, 2013 – June 30, 2014.

**Michigan Department of Agriculture and Rural Development
Environmental Stewardship Division**

January 2014

Program: Farmland and Open Space Preservation

Manager: Rich Harlow, 517-284-5627, HarlowR@michigan.gov

Legal Authority: Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 361 (Farmland and Open Space Preservation), as amended (PA 116)

Established: 1974

Stakeholders and Key Representatives:

- Fulltime Farmers
- USDA NRCS Farm and Ranchland
- Title Insurance Offices
- Agricultural lenders
- Township Officials
- County Planning Commissioners
- Conservation Districts
- Landowners
- Department of Treasury

Purpose and Description of Program:

The Farmland and Open Space Preservation Program (PA 116) preserves agricultural and open space land to provide for current and future needs of citizens of the state. The State of Michigan enters into agreements and easements with landowners to restrict the use and development of land. Agreements last between 10 and 90 years, with a 7 year minimum extension. Parcels with 40 acres or larger, between 5 to 40 acres with certain income requirements, or 15 acre specialty farms with \$2,000/acre/year income, are eligible for enrollment. In exchange, the State of Michigan offers the landowner the opportunity to claim a tax credit for the amount by which the property tax exceeds 3.5 percent of the landowner's household income. In addition, the state offers exemption from special assessments for sewer, water, lights, and non-farm drainage.

Program Outcomes:

- 3.25 million acres enrolled (33% of Michigan farmland)
- 43,900 PA 116 agreements in place
- 19,000 landowners participating

Recent Trends and Concerns:

Funding for operation of the program is received when an owner withdraws their land from the program. This counterintuitive funding source no longer supports program operations. In FY13, staff was reduced from 8 to 3 FTE's. Without passage of a funding bill early in FY14, the program will need to be closed down. Eventually the impact will be an estimated \$44 million per year increase in taxes paid by full time farmers in Michigan and a commensurate loss of farmland due to the state's market value property tax assessment model.

Program: Intercounty Drains

Manager: Mike Gregg, 517-284-5622, GreggM@michigan.gov

Legal Authority: The Drain Code, Public Act 40 of 1956, as amended

Established: 1923

Key Stakeholders:

- County drain commissioners
- County road commissions
- Cities, villages, and townships
- Rural and urban landowners and developers
- Department of Transportation

Purpose and Description of Program:

Whenever two or more counties share drainage infrastructure, an intercounty drainage board is created to balance the interests of the counties involved. Drain commissioners from each county serve on the intercounty drainage board with the Michigan Department of Agriculture and Rural Development serving as chair, and casting the deciding vote when commissioners are in opposition. An extensive and complex procedure in the Drain Code assures public participation. This procedure greatly reduces litigation and provides an expedient process for the management of drainage infrastructure. That infrastructure provides public health benefits while protecting property from damage, improving agricultural yields, and allowing the economic development of poorly drained lands. Engineering, legal, financial, and construction services are performed by private sector consultants and contractors. Project costs are specially assessed to benefiting public corporations and landowners including the counties for county roads and the Michigan Department of Transportation for state highway benefits.

Program Scope and Outcomes:

- 1,100 intercounty drains
- 10,000 miles of drains
- 6 million acres of land drained
- 150 - 225 maintenance projects per year
- 20 - 30 petition projects per year
- \$75,000,000 drainage infrastructure investment in 2013

Recent Trends and Current Concerns:

Loss of general fund revenues has resulted in a 50 percent reduction in staff, compromising the ability to deliver the expected services. At the same time, demand for drain maintenance projects and regulatory requirements have increased. Above average rainfall over the last several years has initiated major maintenance and rehabilitation projects to protect farmland and to prevent urban flooding. Foremost among these is the \$170 million Oakland Macomb Interceptor rehabilitation project which is in its fifth year of a seven year implementation plan.

Program: Forestry Assistance Program

Manager: Stephen Shine, 517-284-5606, ShineS@michigan.gov

Authority: PA 59 of 2013

Established Date: The program was reestablished in its current form on October 1, 2012. However, Conservation Districts have been doing similar work at various levels for over thirty years.

Stakeholders and Key Representatives:

- Non-Industrial Private Forestland owners (family forest owners)
- Private sector consulting foresters
- Michigan's wood products industry
- Local governments (county, township, etc.)
- Forestry, wildlife, and conservation advocacy groups

Purpose and Description of Program:

The Forestry Assistance Program is designed to promote the economically, socially, and environmentally sound management of privately owned forest resources. Conservation District foresters work with private landowners to increase the understanding of the value of actively managed forest resources, refer landowners to private sector foresters for management plan development, silvicultural practice implementation, timber valuation, and harvests.

Participation increases protection of the state's soil, water, plant, and animal resources. A key benefit is landowner understanding of the economic and environmental value of their forest resources. Communities also benefit by having a local forester resource to provide assistance with residential tree health and replanting urban areas extremely valuable in dealing with exotic invasive species such as Emerald Ash Borer, Asian Long-Horned Beetle, Oak Wilt, and general forest health issues.

FY13 Program Magnitude and Outcomes:

- 17 Conservation District foresters
- 42 Michigan counties covered by their services
- 16,381 inquiries from landowners regarding forestry responded to
- 1,599 landowners receiving on-site forestry assistance
- 172,321 acres of private land covered by on-site assistance
- 14,000 acres referred to the private sector for harvest
- 78,000 acres of private forestland currently covered by forest management plans

Program: Local and Designated Open Space Easements

Manager: Rich Harlow, 517-284-5627, HarlowR@michigan.gov

Legal Authority: Natural Resources and Environmental Protection Act (NREPA),
Public Act 451 of 1994, Part 361, as amended (PA 116)

Established: 1974

Stakeholders and Key Representatives:

- The Nature Conservancy
- Local Land Conservancies
- Township Officials
- Planning Commissioners
- Realtors and homebuilder
- Landowners

Purpose and Description of Program:

The Local and Designated Open Space Easement Program preserves farmland and open space through restrictive covenants, and provides tax incentives for participation in the program. Eligible lands include undeveloped and national historic registry or historic sites, riverfront on state designated natural rivers, and areas under Part 323 (Shorelands Protection and Management) of NREPA.

Under a Designated Open Space Easement, the State reimburses landowners for property taxes on development rights and provides an exemption from special assessments for sanitary sewer, water, lights, non-farm drainage. In the Local Designated Open Space Program, the local unit of government forgives the portion of the property taxes that are attributable to the development rights value of the land.

Program Outcomes and Deliverables:

- 10,000 total acres
- 16 designated open space easements
- 45 local open space easements
- \$35,000 in payment in lieu of taxes (PILT)

Recent Trends and Current Concerns:

Both programs are used on a relatively limited basis. Local open space easements are little used in Michigan because local units of government are reluctant to participate due to the loss of tax revenue.

General fund support for PILT is no longer available, and the staff operating the program are part of the PA116 unit which will be laid off if a funding bill is not passed early in FY15.

**Michigan Department of Agriculture and Rural Development
Environmental Stewardship Division**

January 2014

- Program:** Michigan Agriculture Environmental Assurance Program
- Manager:** Janice Wilford, 517-284-5608, WilfordJ9@michigan.gov
- Legal Authority:** Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 82 (Conservation Practices), as amended Public Acts 1 and 2 of 2011
- Established:** 2000

Stakeholders and Key Representatives:

- Michigan producers
- State and federal agencies
- Michigan commodity and agricultural organizations
- Michigan State University
- Conservation and environmental partners and supporters
- Michigan businesses supporting agriculture's environmental stewardship efforts

Purpose and Description of Program:

The Michigan Agriculture Environmental Assurance Program (MAEAP) is a holistic approach to environmental protection. It assists farmers to evaluate their entire operation and make sustainable management decisions balancing society's needs, the environment, and economics. MAEAP is a partnership effort that aims to protect natural resources and build positive communities by counseling Michigan farmers that operate farms of all sizes and all commodities on environmentally responsible agricultural production practices. Public Acts 1 and 2 of 2011 codified MAEAP into law, providing incentives and structure.

To become verified in MAEAP, farmers must complete three comprehensive steps: educational seminars, a thorough on-farm risk assessment and development and implementation of an action plan addressing potential environmental risks, and an on-farm inspection. The Michigan Department of Agriculture and Rural Development (MDARD) conducts the on-farm visit to verify program requirements related to applicable state and federal environmental regulations, including applicable environmental GAAMPs. To retain MAEAP verification, a farm must repeat the risk assessment and MDARD inspection every three years.

MAEAP partners and supporters include over 75 industry, university, state and federal agency, local government, and conservation and environmental groups. The initial MAEAP industry and government partnership was signed by the directors of the MDARD and the Department of Environmental Quality in 1998.

Livestock System:

The Livestock System was implemented in 2000 and verification began in April 2002. The Livestock*A*Syst tool, targeting small and medium sized livestock operations, was introduced in 2008 as an equivalent risk assessment tool to the Comprehensive Nutrient Management Plan. Livestock System verifications using the Livestock*a*Syst criteria began in 2010. Currently, 579 farms have been verified in the Livestock System.

Farmstead System:

The Farmstead System was implemented in 2002 and verification began September 2003. Currently, 698 farms have been verified in the Farmstead System.

Cropping System:

The Cropping System was implemented in 2004 for traditional row crops and vegetables and in 2006 for the Nursery industry (including Christmas trees) and Orchards and Small Fruit. The Greenhouse edition, which covers both Cropping and Farmstead System risks, was introduced in early 2008. A special risk assessment, Grape*A*Syst for juice and wine grape growers, was introduced in 2009. Cropping System verification began in June 2005. Currently, 611 farms have been verified in the Cropping System.

Fiscal year 2013 saw a 59 percent increase in Farmstead System verifications over the prior year, and a 67 percent increase in Cropping System verifications. Livestock System verifications were only slightly behind the prior year's record high.

Number of producers participating:

- Over 10,000 have attended the educational sessions since 2000.
- Between 50 and 75 local meetings take place each year.
- Almost 1,900 farm verifications have been completed, in addition to over 800 re-verifications.

Number of Farms Affected: Targets all farms, all size, and all species

Accomplishments:

- Annually, an average of 5,000 Michigan farmers attend educational sessions geared toward environmental stewardship and MAEAP verification.
- Currently, over 10,000 Michigan farms have begun the MAEAP verification process with almost 1,900 Michigan MAEAP farm initial verifications completed.
- **In FY 13, over 1,600 farmers completed initial risk assessments.**
- Annually, over \$1,200,000 is spent for practice implementation by farmers working toward MAEAP verification.
- Verified nutrient management plans are in place on over half a million acres of Michigan farm land.
- Every year, the erosion-reducing aspects of MAEAP verification have kept almost 347,620 tons of farming soil where it belongs, in farm fields; that's 30,900 10-yard dump trucks of soil not reaching streams and lakes *every year*.

- Through MAEAP, annual phosphorus delivery to lakes and streams through sedimentation is reduced almost 600,000.
- Nitrogen delivery to ground and surface waters through MAEAP is reduced over 1,350,000 pounds per year.
- Phosphorus and nitrogen delivery reduced over the last three years on MAEAP farms could have grown enough algae to cover over 75 percent of Houghton Lake at ¼" depth. (Houghton Lake is 7.5 square miles.)
- Over 730,000 acres receiving pesticides have approved pest management plans over the last three years.
- Almost 13,000 acres of filter strips have been installed and almost 2,300 gullies have been stabilized, improving water quality.

- Program:** Michigan Agriculture Environmental Assurance Program
Technical Assistance
- Manager:** Jan Wilford, 517-284-5608, WilfordJ9@michigan.gov
- Legal Authority:** Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 87 (Groundwater and Freshwater Protection), as amended
- Established:** 1995

Stakeholders and Key Representatives:

- Pesticide and nitrogen fertilizer users
- Michigan agri-businesses, commodity and agricultural organizations
- State and federal agencies
- Michigan State University Extension
- Conservation and environmental partners and supporters
- Michigan businesses supporting agriculture's environmental stewardship efforts

Purpose and Description of Program:

Funded through legislation established in 1995, the Michigan Agriculture Environmental Assurance Program (MAEAP) Technical Assistance delivers on-farm technical assistance, using farm specific risk assessments, education, and conservation plan development to implement practices and coordinate local, state, and federal agency resources to help reduce identified environmental risks and make progress toward MAEAP verification. The assistance is funded through fees assessed on the sale of pesticides and nitrogen fertilizers, general funds, and through several secured grants.

Technical assistance is addressed through a variety of distinct programs, including Agricultural, Engineering Assistance, Clean Sweep, Pesticide Container Recycling, Agri-Chemical Spill Response, Water Monitoring, Golf Courses (Michigan Turfgrass Environmental Stewardship), and Residential. The MAEAP technical assistance is available locally through conservation districts. In FY2013, 65.5 technician positions were funded in conservation districts.

MAEAP standards are in conformance with applicable environmental Right to Farm Generally Accepted Agricultural Management Practices (GAAMPs) and the U.S. Department of Agriculture Natural Resources Conservation Service standards, and address state and federal environmental regulations. The primary means for identifying on-farm environmental risks are with the assessment tools – Livestock*A*Syst, Farm*A*Syst, and various Crop*A*Syst.

The A*Syst evaluation is conducted by conservation district technicians who work one-on-one with farmers to identify environmental risks, create a plan to eliminate the risks, identify potential funding sources to address the identified risks, and provide the technical assistance needed to implement the plan.

Over the past 17 years, almost 17,300 Farm*A*Syst, 2,700 Crop*A*Syst, and 800 Livestock*A*Syst evaluations (Livestock*A*Syst began in 2008) have been completed, which reassure the public that producers are using environmentally sound practices and are helping to foster positive community and neighbor relations. When identified environmental risks have been eliminated, farmers are eligible for MAEAP verification in the Livestock, Farmstead, and Cropping Systems.

In addition, conservation district water technicians offer technical assistance to develop Farm Emergency Plans, which provide farmers a plan to mitigate on-farm emergencies and emergency first-responders information on the location of on-farm hazardous materials. Technicians also work with farmers to create emergency spill kits that provide a quick way to contain and clean up spills of pesticides and fertilizers.

Number of Grants in Effect FY2013:

- MAEAP Water Stewardship Techs – 36
- Conservation Technical Assistance Initiative – 18
- Strategic Watershed Action Teams – 6
- Great Lakes Restoration Initiative – 5.5

2013 Accomplishments:

- 7,917 on-farm risk reductions (pesticide storage security, anti-backflow device installation, drift management plans, triennial water testing, pesticide container triple-rinsing, etc.) implemented
- 744 Farm*A*Systs, 567 Crop*A*Systs and 300 Livestock*A*Systs completed
- 828 New Farm Emergency Plans implemented, including pesticide, manure and silage considerations. 260 plans were revised.
- 166 emergency spill kits created
- 29 abandoned wells were decommissioned

Michigan Department of Agriculture and Rural Development Environmental Stewardship Division

January 2014

Program: Local Purchase of Development Rights

Coordinator: Elizabeth Juras, 517-284-5629, JurasE@michigan.gov

Legal Authority:

- The Michigan Agricultural Preservation Fund and the Agricultural Preservation Fund Board were established in 2000 under Part 362 of the Natural Resources and Environmental Protection Act, (MCL 324.36201 to 324.36207).
- Farm Security and Rural Investment Act of 2002 (Farm Bill) USDA Farm and Ranchland Protection Program.

Established: 2000

Stakeholders and Key Representatives:

- USDA NRCS
- The Nature Conservancy
- MSU Land Policy Institute
- American Farmland Trust
- Title Insurance Offices
- Agricultural Lenders
- Township Officials
- Planning Commissioners
- Conservation Districts
- Michigan Farm Bureau
- Realtors and homebuilders
- Agricultural Preservation Boards

Purpose and Description of Program:

The Local Purchase of Development Rights (PDR) Program expands farmland preservation efforts in Michigan by facilitating the establishment of local farmland preservation programs. Grants to local units of government offered are used to promote the enactment of farmland preservation ordinances, comprehensive land use planning, intergovernmental coordination, and local financial support for farmland preservation. Agricultural conservation easements acquired utilizing grant funds are jointly held by the local unit of government and the State.

Program Outcomes and Deliverables:

- 24 qualifying communities
- \$26 million in applications received
- \$2.7 million in grants awarded
- \$1.0 million federal funds leveraged
- 11 parcels funded

Recent Trends and Current Concerns:

Funding for the PDR Program comes from revenue received through the Farmland and Open Space Preservation Program (PA 116). Given this funding mechanism, 40 acres have to leave the PA 116 Program to protect one acre under this program. Additionally, the staff operating this program are part of the PA 116 unit which will be laid off if a funding bill is not passed early in FY15.

- Program:** Michigan Biosolids Land Application
- Coordinator:** Steve Mahoney, 517-284-5620, MahoneyS@michigan.gov
- Legal Authority:** Natural Resources and Environmental Protection Act, PA 451 of 1994, Part 24 Rules and Part 31, as amended
- Established:** June 1998

Stakeholders and Key Representatives:

- General public
- Municipally-owned wastewater treatment facilities that land apply biosolids
- Farmers that accept biosolids for land application
- Rural residents near the land application of biosolids
- State, county, and township elected officials

Purpose and Description of Program:

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 as fertilizers for their nutrient value. The Michigan Department of Environmental Quality, Water Resources Division, regulates the land application of biosolids in Michigan. However, the Michigan Department of Agriculture and Rural Development provides farmers with education and technical assistance on the use of biosolids as fertilizers.

Current program activities include an annual conference, distribution of a quarterly newsletter, and annual displays at Michigan State University Ag Expo, as well as, the Michigan Townships Association Annual Conference. In a typical year, 170 waste water treatment plants generate over 87,000 dry tons of biosolids which are applied to approximately 18,000 acres of agricultural land.

Nutrient Value:

The total nutrient value of biosolids that were land-applied in FY13 was approximately:

- 300 tons of potassium
- 3.6 million pounds of phosphorus
- 7.4 million pounds of nitrogen
- **\$10 million** in fertilizer costs saved through the judicious use of biosolids

Increasing energy and fertilizer costs continue to add value to the nutrients made available for crop production by the on-farm utilization of biosolids.

- Program:** Michigan Clean Sweep
- Coordinator:** Abigail Eaton, 517-284-5612, EatonA@michigan.gov
- Legal Authority:** Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 87 (Groundwater and Freshwater Protection)
- Established:** 1995

Stakeholders and Key Industry Representatives:

- Pesticide and nitrogen fertilizer users
- Farmers and homeowners
- Turfgrass industry
- Michigan agri-businesses
- Michigan Department of Environmental Quality
- Michigan counties, townships, and cities

Purpose and Description of Program:

The Michigan Clean Sweep Program helps protect the state's natural resources by facilitating the proper disposal of outdated, unused, or unwanted pesticides. The operation of pesticide drop-off sites and coordination with local hazardous waste programs have been key to program success. Drop off sites are staffed locally and disposal costs are offset by groundwater fees on pesticides and nitrogen fertilizers. Technical assistance providers through the Conservation Districts conduct special collection events in areas not typically served by permanent sites. In partnership with Michigan Department of Environmental Quality, the infrastructure established in the program has also been used to collect materials containing mercury and pharmaceuticals. Since its inception, Clean Sweep has eliminated the risks associated with over two million pounds pesticides.

FY2013 Program Outcomes:

- 18 permanent sites
- \$231,993 disposal costs
- 127,400 pounds of pesticides
- 1,475 pounds of mercury
- 15 satellite collections

Recent Trends and Current Concerns:

- In the past 3 years, 5 counties have expressed an interest in establishing new Clean Sweep permanent site locations. Depending on the infrastructure needed and potential integration with household hazardous waste programs, this typically costs between 15 and 50 thousand dollars.

- In the fourth quarter of FY13, uncertainty about the availability of restricted revenues resulted in the suspension of collections for that year. The Michigan Department of Agriculture and Rural Development is working to stabilize revenues available to the program and has budgeted \$242,500 in pesticide disposal costs in FY14. .

Program: Michigan Conservation Districts

Manager: Stephen Shine, 517-284-5606, ShineS@michigan.gov

Legal Authority: Part 93 (Soil Conservation Districts) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended

Established: 1937

Stakeholders and Key Representatives:

- Conservation districts
- Michigan counties
- Michigan landowners
- Business owners
- Michigan citizens
- Conservation organizations

Purpose and Description of Program:

The Michigan Department of Agriculture and Rural Development (MDARD) provides program direction, oversight, and assistance to Michigan's 78 conservation districts. It also administers over \$5.0 million annually in state and federal grants to conservation districts.

Conservation districts work to identify local resource needs and then to develop and implement programs to address those needs. Because of the local nature and leadership of conservation districts, they serve as an excellent vehicle for the delivery of programs for the Quality of Life departments, including the Conservation Reserve Enhancement Program, Michigan Agriculture Environmental Assurance Program, Conservation Technical Assistance Initiative, Forestry Assistance Program, Strategic Watershed Action Teams, 319 Watershed Programs, Hunter Access Program, Pheasant Restoration Initiative, and Great Lakes Restoration Initiative Grants.

Michigan's conservation districts are the delivery point for the Federal Farm Bill. Conservation district staff provide forest and farm landowners administrative and technical assistance, accessing the significant financial assistance available. Over the last 10 years (on average), Michigan has received over \$30,000,000 in Farm Bill financial assistance committed to contracts for Michigan landowners.

Number of acres of land affected:

- Private forestland – 11 million acres
- Agricultural land – 10 million acres

Recent Trends and Current Concerns:

Conservation districts were eliminated from the state's budget in 2008. The absence of base funding is causing a dire financial situation for conservation districts. In some

places, conservation districts may not have the capacity to carry out MDARD program priorities or provide the delivery of other services to the private landowners.

Program: Michigan Pesticide Container Recycling

Coordinator: Abigail Eaton, 517-284-2612, EatonA@michigan.gov

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

Established: 1995

Stakeholders and Key Industry Representatives:

- Pesticide and nitrogen fertilizer users
- Turfgrass industry
- Michigan agri-businesses
- Michigan State University Extension
- Conservation districts
- Michigan counties and cities

Purpose and Description of Program:

The Pesticide Container Recycling Program reduces environmental and human health risks by promoting the proper rinsing and recycling of pesticide containers. It operates as a partnership between the Michigan Department of Agriculture and Rural Development (MDARD), the Michigan Agri-Business Association, the Ag Container Recycling Council (ACRC), Clean Tide/IBC North America, agri-chemical dealers, and pesticide users across Michigan. Through a network of agri-businesses and conservation districts, growers are able to return their used, properly cleaned plastic containers for recycling.

Program Metrics and Outcomes:

- 1.33 million pounds recycled to date
- 47,989 pounds in FY 2013
- 30 agri-businesses participating

Recent Trends and Current Concerns:

The traditional Pesticide Container Recycling Program in Michigan has splintered as new local vendors for plastic have entered the market. MDARD continues to work with the vendor contracted by ACRC, Container Services Network of South Carolina. In addition, MDARD will also promote collection through a Michigan based company, Clean Tide, a subsidiary of IBC North America in Clarkston. This will offer more options for agri-businesses and producers to recycle their plastic, while at the same time providing challenges in collecting information on the pounds of plastic collected overall.

The A*Syst evaluation is conducted by conservation district technicians who work one-on-one with farmers to identify environmental risks, create a plan to eliminate the risks, identify potential funding sources to address the identified risks, and provide the technical assistance needed to implement the plan.

Over the past 17 years, almost 17,300 Farm*A*Syst, 2,700 Crop*A*Syst, and 800 Livestock*A*Syst evaluations (Livestock*A*Syst began in 2008) have been completed, which reassure the public that producers are using environmentally sound practices and are helping to foster positive community and neighbor relations. When identified environmental risks have been eliminated, farmers are eligible for MAEAP verification in the Livestock, Farmstead, and Cropping Systems.

In addition, conservation district water technicians offer technical assistance to develop Farm Emergency Plans, which provide farmers a plan to mitigate on-farm emergencies and emergency first-responders information on the location of on-farm hazardous materials. Technicians also work with farmers to create emergency spill kits that provide a quick way to contain and clean up spills of pesticides and fertilizers.

Number of Grants in Effect FY2013:

- MAEAP Water Stewardship Techs – 36
- Conservation Technical Assistance Initiative – 18
- Strategic Watershed Action Teams – 6
- Great Lakes Restoration Initiative – 5.5

2013 Accomplishments:

- 7,917 on-farm risk reductions (pesticide storage security, anti-backflow device installation, drift management plans, triennial water testing, pesticide container triple-rinsing, etc.) implemented
- 744 Farm*A*Systs, 567 Crop*A*Systs and 300 Livestock*A*Systs completed
- 828 New Farm Emergency Plans implemented, including pesticide, manure and silage considerations. 260 plans were revised.
- 166 emergency spill kits created
- 29 abandoned wells were decommissioned

Program:	Michigan Turfgrass Environmental Stewardship Program
Manager:	Jan Wilford, 517-284-5608, WilfordJ9@michigan.gov
Legal Authority:	Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 87 (Groundwater and Freshwater Protection), as amended
Established:	1998

Stakeholders and Key Representatives:

- Michigan Turfgrass Foundation
- Michigan State University
- Michigan Department of Environmental Quality
- Michigan Golf Course Owners Association
- Golf Association of Michigan
- Michigan Golf Course Superintendents Associations

Purpose and Description of Program:

The Michigan Turfgrass Environmental Stewardship Program (MTESP) is a voluntary, proactive initiative designed to protect groundwater and surface water resources by advancing turfgrass management practices, preventing pollution, and increasing regulatory compliance within the golf industry. MTESP is intended to organize efforts of the turfgrass industry, state agencies, Michigan State University (MSU), and environmental advocacy groups to advance the environmental stewardship of the turfgrass industry and to recognize environmental achievements. The program was developed at MSU with support from the Michigan Turfgrass Foundation, Michigan Golf Course Superintendents Association, Golf Association of Michigan, Michigan Golf Course Owners, Michigan PGA, Michigan Department of Environmental Quality, Michigan Department of Agriculture and Rural Development and the Michigan Department of Natural Resources.

The program represents a unique partnership and offers the following services:

- Identification of state and federal laws affecting the golf industry related to drinking water and irrigation wells, fuel storage, pesticides and fertilizers, and emergency response plans;
- On-site visits and workshops providing compliance assistance, technical assistance, pollution prevention and “green” purchasing information;
- Updates on pending legislation impacting the golf industry;
- Buffer strips to increase surface water protection and wildlife habitat; and
- Public recognition for stewardship achievements.

Number of Participating Golf Properties: 255

Number of Certified Golf Properties*: 84

*Golf courses that are certified in the program have met specific standards for natural resource protection and gained compliance with environmental regulations.

Recent Trends and Current Concerns:

Michigan turfgrass encompasses 1.89 million acres of land. The MTESP has been used as a model for other voluntary, industry-based environmental programs in Michigan. Strong interest exists in expanding this program into additional segments of the green industry by the Michigan Sports Turf Managers Association, professional lawn care companies, parks, and municipalities.

The MTESP was significantly restructured in FY 2006. Permanent positions held for field work and administrative support were eliminated. The Michigan Turfgrass Foundation has contracted with two people to conduct field work and assist with additional program activities. The MTESP has identified several areas for expansion including Water/Irrigation Best Management Practices (BMPs), Environmental Management Systems, Native Species/Habitat, and Nutrient BMPs. Currently, the MTESP is developing on-line modules which would greatly increase access to program information and flexibility for users.

Program: Michigan Water Stewardship Program - Residential

Manager: Jan Wilford, 517-284-5608, WilfordJ9@michigan.gov

Legal Authority: Part 87 (Groundwater and Freshwater Protection) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended

Established: 1995

Stakeholders and Key Representatives:

- Residential users of pesticide and nitrogen fertilizer
- Residential youth
- Educators statewide
- Conservation districts
- Agencies interested in water quality improvement

Purpose and Description of Program:

Residential Water Stewardship - The Michigan Water Stewardship Program (MWSP) - encourages Michigan residents to be more aware of the water around them, how they impact it, and what steps they can take to improve water quality. Residential technical assistance is delivered through a web-based interactive program designed to assist adoption of stewardship practices that reduce environmental risks to water and other related natural resources through education and outreach materials. The MWSP is voluntary, locally driven, and funded through fees that are assessed on sales of pesticides and nitrogen fertilizers. The interactive website, www.MiWaterStewardship.org, is continuing to expand with more free online courses, activities for students and youth, and teaching resources for educators.

Program Outcomes:

- 22,000 visits to the website to date
- 12,000 web site visits in FY13
- 1,600 referrals (31%) from United States Environmental Protection Agency

Program: Migrant Labor Housing - Inspection and Licensing

Manager: Majed Ghussaini, (517) 284- 5621, GhussainiM@michigna.gov

Legal Authority: Public Health Code, Public Act 368 of 1978, Part 124, as amended

Key Stakeholders:

- Fruit and Vegetable Growers
- Migrant Farm Workers & Advocates
- Consumers of fresh fruits and vegetables
- Workforce Development Agency- H2A Guest Worker Program

Deliverables:

- Inspections 1,600
- Sites 760
- Housing Units 3,700
- Housing Capacity 22,000
- Crop Value \$2.3 Billion

Description and Purpose of Program:

- Migrant labor housing is typically provided by farmers who need migrant workers to harvest or process their crops. 38 of Michigan's agricultural crops are dependent on labor intensive hand-harvesting or processing.
- The Migrant Labor Housing (MLH) Program is designed to ensure the safety of housing occupied by five or more migrant agricultural workers. Compliance with Part 124 housing rules means safe water supplies, proper sanitation facilities, proper food preparation and storage facilities, proper waste disposal, fire and structural safety.
- Quality living conditions is essential for the health of migrant workers and their families, improves worker productivity, and reduces the risk of food borne illnesses.
- Migrant workers play an important role in the planting, cultivating, harvesting, and packaging of numerous labor-intensive crops grown in Michigan. These crops generate \$2.3 billion in farm gate revenues each year.
- The Michigan Department of Agriculture and Rural Development staff provides field support for Michigan Works! job placement for the H2A guest worker visa program. Provision of multiple State of Michigan services via MLH staff reduces overall costs and ensures requirement consistency.



Program: Qualified Forest Program

Manager: Rich Harlow, 517-284-5627, HarlowR@michigan.gov

Legal Authority: Michigan Tax Code MCL 211.7jj(1), *et. seq.*

Established: 2006, revised and transferred to MDARD 2013

Stakeholders and Key Representatives:

- Private Forest Landowners
- Consulting Foresters
- Wood Products Industry
- Conservation District Foresters
- Local property tax authorities
- Michigan Department of Treasury

Purpose and Description of Program:

The Qualified Forest Program (QFP) encourages the development and implementation of forest management plans on privately owned forest land. This is intended to improve forest product yield on 11 million acres of private forest land and grow Michigan's wood products economy in a sustainable and environmentally sound manner. In exchange for agreeing to implement forest management and harvest practices defined in their forest management plan, landowners can realize 18 mills of school operating tax reduction and have the option to keep taxable values capped in the event of a sale. The foresters hired under the Forestry Assistance Program promote participation, verify participant eligibility, and refer landowners to private consulting foresters.

Program Metrics and Outcomes:

- 1,100 landowners participating
- 2,350 affidavits generated
- 145,000 acres of private forest land participating

Recent Trends and Concerns:

On June 6, 2013, Governor Snyder signed legislation transferring the Qualified Forest Program (QFP) from the Michigan Department of Natural Resources (DNR) to the Michigan Department of Agriculture and Rural Development (MDARD). From 2006 to 2012, approximately 93,000 acres of land were enrolled in the QFP by DNR. In 2013, major changes were made to the program that reduced the repayment charged when leaving the program and also moved the program to MDARD for administration. Approximately 50,000 acres were enrolled in the QFP during the first three month application cycle in FY13. It is expected that a similar trend will occur in 2014.

Michigan Department of Agriculture and Rural Development Environmental Stewardship Division

January 2014

Program: Right to Farm Environmental Complaint Response

Manager: Wayne Whitman, 517-284-5618, WhitmanW@michigan.gov

Legal Authority: Michigan Right to Farm Act, Public Act 93 of 1981, as amended

Established: 1989

Stakeholders and Key Representatives:

- Michigan farmers
- Residential farm neighbors
- Michigan counties
- Township officials
- Department of Environmental Quality
- MSU Extension (MSUE)
- Natural Resources Conservation Service (NRCS)
- Michigan conservation districts

Purpose and Description of Program:

The Right-to-Farm Program provides a common sense and cost-effective approach to investigate and resolve environmental and nuisance complaints involving farms in Michigan. Individuals with concerns about specific farming operations may file a complaint with the Michigan Department of Agriculture and Rural Development (MDARD). These complaints typically involve odor, noise, or concerns about potential environmental impacts. MDARD then investigates farm conditions relative to a set of Generally Accepted Agricultural and Management Practices (GAAMPs). Farmers may also request a pro-active evaluation of their conformance with GAAMPs. The GAAMPs are developed by a technical advisory panel and must be approved by the MDARD Commission to address both nuisance and key environmental conditions. Eight specific sets of GAAMPs cover: Manure Management, Pesticide Utilization/Pest Control, Nutrient Utilization, Care of Farm Animals, Cranberry Production, Site Selection and Odor Control for Livestock Facilities, Irrigation Water Use, and Farm Markets.

If the farm is found to be operating in conformance with the applicable GAAMPs, then that determination can be used as an affirmative defense by the farm operation should the complaint elevate to become a nuisance law suit. If deficiencies are found, farmers are guided toward technical assistance opportunities through MSU Extension, NRCS, Conservation Districts, and private consultants. Typically, these conflicts and the associated complaints are resolved well before they reach the court system. Potential contamination issues and apparent environmental code violations are coordinated with the Michigan Department of Environmental Quality (MDEQ) with each agency taking the lead based on their area of regulatory authority.

Program Metrics and Outcomes FY13:

- 156 new environmental complaints
- 165 follow-up inspections conducted
- 18 requests for pro-active inspection

Recent Trends and Concerns:

In recent years, increasing numbers of individuals are expressing an interest in raising livestock in urban settings. The associated GAAMPs are being reevaluated.

Program: Right to Farm Site Selection Verification

Manager: Wayne Whitman, 517-284-5618, WhitmanW@michigan.gov

Legal Authority: Michigan Right to Farm Act, Public Act 93 of 1981, as amended

Established: June 2000

Stakeholders and Key Representatives:

- Michigan farmers
- General public
- Elected officials
- Michigan Department of Environmental Quality
- Michigan State University Extension
- Natural Resources Conservation Service
- Michigan conservation districts
- Agriculture Industry groups
- Michigan Farm Bureau

Purpose and Description of Program:

The Right to Farm Site Selection Verification Program is designed to help farmers properly plan, site, build, and maintain new and expanding livestock production facilities. A set of Generally Accepted Agricultural and Management Practices (GAAMPs) for Site Selection and Odor Control for New and Expanding Livestock Production Facilities has been established. They include a comprehensive set of construction standards, odor evaluation, manure management planning, and farm management practices. Farmers wishing to build new or expand livestock facilities go through a formal siting process. They contact the Department with a construction or expansion proposal. MDARD works with the farm to evaluate management practices and facility designs. The proximity to neighbors and land use considerations are evaluated. An “odor footprint” is estimated based on design and local weather patterns. Finally the suitability of a particular site is determined. If approved, ways to enhance neighbor relations are agreed upon. Basically this program works pro-actively with livestock producers to effectively manage nutrients, control odors on their farms, and address the environmental and social concerns of their non-farm neighbors.

Outcomes to date:

- 410 livestock and poultry farm operations have completed the verification process
 - 50% dairy farms
 - 35% swine facilities
 - 10% poultry barns
 - 5% beef cattle operations
- \$420 million in new infrastructure has been invested

Most of the site verifications for dairy farms are for expansions, while most of the swine facility verifications are for new livestock production facilities. Several poultry, equine, and beef operations have also participated in the program.

FY 2013 Accomplishments:

- 40 new and expanding farm facilities completed the verification process
- 21 new livestock facilities were built
- 19 farm facilities expanded
 - 12 dairy,
 - 4 swine,
 - 3 beef
 - 2 equine
- A Comprehensive Nutrient Management Plans (CNMP) or Manure Management System Plan (MMSP) was developed and implemented on each of these 40 new / expanded farm animal production facilities

Recent Trends and Current Concerns:

There are increasing social and environmental concerns regarding animal agricultural production in Michigan and across the nation. This is especially the case with the siting and management of large-scale livestock production facilities, which are often referred to as concentrated animal feeding operations (CAFOs). To date, approximately 65 percent of the estimated 218 CAFOs in Michigan have completed the Right to Farm Site Selection verification process. There is also a recent trend of locating livestock and poultry in highly populated urban and suburban settings and the need to identify the role of Site Selection GAAMPs in these situations.

Program: State Purchase of Development Rights

Coordinator: Elizabeth Juras, 517-284-5629, JurasE@michigan.gov

Legal Authority:

- Natural Resources and Environmental Protection Act , Public Act 451 of 1994, Part 361 (Farmland and Open Space Preservation), as amended (known as PA 116)
- USDA Farmland and Ranchland Protection Act

Stakeholders and Key Representatives:

- Natural Resource Conservation Service
- State Certified Appraisers
- American Farmland Trust
- Title Insurance Offices
- Agricultural lenders
- Michigan Farm Bureau
- Realtors and homebuilders

Purpose and Description of Program:

The State Purchase of Development Rights (PDR) Program permanently preserves valuable agricultural and open space land to provide for current and future needs of citizens of the state. On behalf of the State of Michigan, the Michigan Department of Agriculture and Rural Development (MDARD) enters into permanent conservation easements with landowners to restrict the use and development of prime and unique agricultural and open space lands. The easements are monitored on an annual basis and enforced by the State.

Program Outcomes:

- 68 easements
- 16,194 acres
- \$26.5 million in PA 116 revenue used
- \$5.0 million federal revenue leveraged

Recent Trends and Current Concerns:

Part 362 of the Natural Resources and Environmental Protection Act was amended in 2000, shifting funding from the State of Michigan to run the PDR Program to providing grants for local PDR programs. The grant based approach is intended to promote favorable local land use policy and leverage local investments in agriculture. The MDARD is not currently accepting applications for the State PDR Program but does accept donated conservation easements on working lands and for natural areas.

Program: Water Monitoring

Coordinator: Bob Pigg, 517-284-5611, PiggR@michigan.gov

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

Established: 1989

Stakeholders and Key Representatives:

- Michigan landowners
- Michigan citizens
- Michigan counties, townships, and cities

Purpose and Description of Program:

The Water Monitoring Program samples wells, primarily individual domestic wells, across the state for general chemistry, pesticides, and volatile organic compounds to meet state and federal program objectives. The Water Monitoring Program provides data on domestic drinking water well quality to retain pesticide product registrations where those products can be used without negative impacts on groundwater quality. The program provides data on nitrate and pesticide concentrations to well users, investigates the nature and extent of pesticide contamination at contaminated sites, coordinates information on potential health impacts from the use of contaminated water supplies, and provides alternate water supplies including well replacement for domestic well owners with pesticide levels above public drinking water standards. The Water Monitoring Program is unable to accept sampling requests from the general public. However, the program coordinator can provide technical guidance for using public or private labs, as well as confirmation monitoring of previous detection sites.

Program Outcomes:

- 31,426 wells screened for atrazine and/or nitrate with test kits
- 4,658 number of wells tested using EPA laboratory methods

Recent Trends and Current Concerns:

In 2011, the enabling legislation was amended, allowing the program to sample surface water for the first time.

Emerging issues include the chemistry and toxicity of pesticide metabolites, the toxicity of mixtures of pesticides, nitrate contamination of vulnerable aquifers, and determining the impacts of best management plans on water quality.

Program: Water Withdrawal Reporting

Coordinator: Abigail Eaton, 517-284-5612, EatonA@michigan.gov

Legal Authority: Natural Resources and Environmental Protection Act, Public Act 451 of 1994

Established: August 2006

Stakeholders and Key Representatives:

- Large Agricultural Water Use Operations
- Great Lakes Governors and Premiers

Purpose and Description of Program:

The Great Lakes Governors and Premiers signed the Annex 2001 on December 13, 2005, implementing agreements that will provide unprecedented protections for the Great Lakes-St. Lawrence River Basin. These agreements include a ban with limited exceptions on new diversions of water outside the Basin. Each state is required to create a program for the management and regulation of new or increased large withdrawals to ensure an effective and efficient water management program. As part of the Michigan solution, the Water Withdrawal Reporting Program requires that all water users having a capacity to withdraw 100,000 gallons per day must report their use on an annual basis. Agricultural users report to the Michigan Department of Agriculture and Rural Development. Non-agricultural users report to the Department of Environmental Quality.

Program Outcomes and Deliverables (2012):

- 1,412 agricultural operations reporting
- 7,283 individual pumps in use

Recent Trend and Current Concerns:

A new on-line system has been developed for agricultural users to report their annual water use. The 2012 reporting season was the first year for producers to file their reports on-line, with an option to file by paper still in place. As of 2013, all agricultural users are required to submit reports using the on-line system for all large capacity water withdrawals.