

Eaton Conservation District 2014 Annual Report



ECD 2014 Photo Contest: J. Malcuit

The mission of the Eaton Conservation District is to promote and encourage cooperation with other individuals, groups, organizations, or agencies in an organized effort to conserve and improve the natural resources in Eaton County.

Eaton Conservation District

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Introduction

The Eaton Conservation District was created as an entity of state government to develop and carry out programs to reduce erosion, protect water quality and encourage wise land management. In recent years land use patterns have changed dramatically. Pressures on natural resources have continued to mount with erosion problems due to development without proper conservation measures in place as well as other non-point source pollution occurring due to the actions of the many new land users in rural and suburban areas. Priority issues today include land use, urban sprawl, water quality, loss of wetlands, forestry and wildlife management, and nutrient management.

The Eaton Conservation District (ECD) is a legal entity of State Government organized under provisions of Act 297, P.A. 1937, as amended. ECD is a locally controlled resource management agency, created by concerned landowners and administered by publicly elected boards of directors.



The locally elected five-member board of directors makes all planning decisions regarding the District's programs and activities. The directors hire qualified staff to conduct and carry out the programs and activities. These programs provide technical help, information and awareness to assist people in the District to properly manage their natural resources. There are 78 Conservation Districts that are generally organized along county boundaries.

The Michigan Department of Agriculture and Rural Development (MDARD) are responsible for assisting and coordinating the activities of local districts. The Environmental Stewardship Division of MDARD also has administrative responsibilities to ensure each district is operated and maintained as a governmental entity.

District funding sources include state appropriations, county and other governmental appropriations, federal and state grants, and other locally initiated and conducted fund raising activities. Conservation District directors are responsible for developing funding sources for the operation of the Conservation District and for the conduct of programs focused on solving resource issues.

Conservation Districts partner with many local and statewide groups and organizations. The two main agencies that assist with Conservation Districts are the Michigan



Department of Agriculture and Rural Development and the USDA Natural Resources Conservation Service. There are also three main non-profit organizations that support Districts: The Michigan Association of Conservation Districts, the Michigan Association of Conservation District Employees and the National Association of Conservation Districts. ECD partners with many local and regional organizations as well: Resource Conservation and Development, Michigan State University Extension, Eaton County Parks, Pheasants Forever, Quality Deer Management Association, Center for Regional Food Systems, Great Lakes Bay Sail, Michigan Food and Farming Systems, US Fish and Wildlife Service, County Schools and Tri-County Regional Planning.

Financial Report

INCOME	
Deferred Income	61,000.00
Federal Grants	129,286.00
Contributions from Local Units	119,576.00
State Grants	132,875.00
Charges for Services	1,932.00
Interest and Rentals	357.00
Tree Sale	30,999.00
Other Revenue	385.00
Total Income	415,410.00
281 Operations	86,609.00
282 MWSP Agricultural	60,000.00
289 Arbor Day	45,245.00
285 River Restoration	71,000.00
294 Tree Sale	21,000.00
299 MWSP Website	11,375.00
319 Watershed	27,000.00
295 Impact Grant	19,000.00
CMI Monitoring	10,000.00
Total Expenses	412,229.00
Difference	3,181.00

Land Use

ECD recognizes the importance of land use patterns on protecting natural resources. ECD is dedicated to serving as a resource for local planning officials. The Greening Mid-Michigan Project is a local effort to develop and implement a vision for green space and conservation efforts. This year, the Greening Mid Michigan committee partnered with the Tri-County Planning Commission, Urban and Rural Services Management Committee, The Mid-Michigan Program for Greater Sustainability, and the US Department of Housing and Urban Development to host the 2nd annual Ultimate Mid-Michigan Bus Tour. The theme of the tour was “Our Farmland and Our Cities: Shaping



our Economy & Livelihood”. Participants visited 11 sites throughout Clinton, Eaton, and Ingham Counties including: Danford Island Park in Dimondale, Country Mill, Peckham Farms, Allen Market place, and more. Eaton Conservation District staff attended to promote the MAEAP verified farms, explain the types of practices that MAEAP requires, and discuss water quality initiatives in the region.

New in 2013, the Qualified Forest Property Program (QFP) was transferred to the Michigan Department of Agriculture Rural Development (MDARD) and increased the role of the Conservation Districts in provision of assistance to private forestland owners, including administration of QFP. ECD has promoted the new opportunities to landowners through events, news releases, and one-on-one assistance. To date, ECD has reviewed three applications for stocking and productivity of the forestlands.

ECD staff serve on the Eaton County Farmland Preservation Board and review and approve PA 116 applications for farmland agreement. In 2014, the board of directors reviewed and approved 5 applications for PA 116 for 498.90 acres.

ECD is co-located with the USDA Natural Resources Conservation Service. As part of this partnership, ECD staff provide outreach and technical assistance to landowners to encourage conservation practices and participation with Farm Bill conservation programs.

Water Quality & Quantity

The Eaton Conservation District is dedicated to protecting water quality and quantity in Eaton County. Multiple programs focus on identifying and reducing risks to protect our waterways. ECD serves on planning committees for the Charlotte Wellhead Team, Statewide MAEAP advisory team, Middle Grand River Watershed, Thornapple River Watershed Committee, and Battle Creek Restoration Project.

MAEAP

The Michigan Agriculture Environmental Assurance Program (MAEAP) is an innovative, proactive program that helps farms of all sizes and all commodities voluntarily prevent or minimize agricultural pollution risks. In 2014, District staff worked with 39 land owners to complete 52 environmental risk assessments, discuss best management practices and develop emergency plans on farms. In 2014 there were 28 MAEAP verifications/reverifications and 239 risk reductions to reduce point and nonpoint source pollution.





Our ECD MAEAP technician was featured in three different radio spots this year. She was interviewed twice by Michigan Farm Radio’s Nicole Heslip for MAEAP Minutes and once by WKAR’s Mark Bayshore for Morning Edition. During the interviews, Silveri discussed what farmers and MAEAP technicians can work on during the winter months, how MAEAP can be used to engage

customers at farmers markets and some of the challenges faced by new and beginning farmers trying to enter the agriculture industry.

Staff worked directly with producers to review management practices covering 4896 acres of farm land (522 ac. pasture & 4372 ac. cropland). This included revising and creating drift management plans, pesticide inventories, 13 manure management plans (8 revisions of existing plans), 15 farm emergency plans, and mapping 4896 acres of crop and pastureland to highlight sensitive areas and monitor erosion from soil loss. Of the 35 wells that staff monitored for nitrates and bacteria, zero contamination was found.

ECD partnered with the Eaton and Ingham Farm Bureaus to secure marketing grants to promote participation in MAEAP and NRCS programs among Farm Bureau members. This resulted in the creation of a MAEAP Water Quality 101 booklet and a cover crops and soil health field day for the annual fall tour.

Don’t Farm Naked Field Day Overview

This year’s annual fall field day was made possible through local partnerships and an educational grant from Michigan Farm bureau. The Grant was used to bring in nationally renowned guest speaker, Dr. Hans Kok, an Indiana based agriculture consultant who uses an innovative approach to teach producers about the importance of managing soils the benefits of cover crops. The event was hosted by The Country Mill and Upright Farms of Charlotte in September. The Country Mill provided a great location for over 40 attendees to listen to speakers while enjoying cider and donuts on a chilly fall day at a MAEAP Verified Farm. In the afternoon we walked across the street to explore a soil pit on Paul Uprights farm with NRCS biologist Jim Marshall. Paul’s farm was one of the first farms in the county to become MAEAP verified. He has been practicing no-till and implementing cover crops into his crop rotation for several decades. The field day also



featured an unmanned aerial vehicle (UAVs or drones) demonstration by MSU Associate Professor Bruno Basso. Bruno, recruited to join the field day by long time friends Holly Schaffer and Ken Poff, joined us to demonstrate his work using UAVs to model water and nutrient cycling in relation to agro-ecosystems through development of SALUS, a model that integrates crop productivity with water, carbon, and nutrient fluxes in a spatially explicit manner.

MGROW Partnership

Water is a vital and essential resource for human life and community sustainability. Without clean water we cannot expect our communities to thrive. Whether our communities value agriculture, access to food, public green space, recreation, fishing, industry, health or energy, water is a piece of it all. In the past year we have been working with the Middle Grand River Organization of Watersheds (MGROW) to engage community members in collaborative projects that promote and celebrate our water. Part of our work with MGROW focusses on education and skill building to create a foundation that a volunteer led nonprofit can grow from. Throughout this project many questions have been asked. Perhaps the most important question is how will we create change? Community brainstorming sessions were held, surveys were sent and lessons learned from existing organizations were shared. As a result, the following strategies were created:

Pollution Isn't Pretty

This strategy focusses on reducing nonpoint source pollution through education and brand identity.

Celebrate our Water

This strategy focuses on telling the story of the Middle Grand River Watershed, home to the Maple, Grand, Red Cedar and Looking Glass rivers, through promotion of community events and projects.

Get out and Paddle

The strategy focusses on promoting recreation (including adaptability and access), river expeditions and heritage water trails.



Team building at the Capital City Dragon Boat Race. The Mighty Tridents of the Middle Grand took the silver medal in the Fire Phoenix division.



Make an Impact

This strategy focusses on working together to create a diverse network of individuals passionate about protecting and promoting our water, and investing in the development of MGROW through resource building.

Our work with MGROW continues into 2015 as we help them create change through the above strategies. To learn more about MGROW visit their website, www.mgrow.org and follow them on Facebook and Twitter.

Water Quality

How clean is our water? That is a question we have been working hard to answer this year. We are not worried so much about drinking water, rather the water flowing through our rivers and streams that we fish, boat, swim and play in. Sampling for E.coli is one way we can measure how clean our water is. Why E.coli? E.coli is a fecal indicator bacteria found in the gut of all warm blooded animals that is also linked to human health problems like viral and bacterial gastroenteritis and hepatitis A. How does it get into our water? Failing septic tanks and drainfields and animal waste such as horses and cows are a couple sources.

Beginning in August of 2014 we sampled for E.coli in portions of Sandstone, Frayer and Sebewa Creeks, Winchell and Union Drain and Cryderman Lake Drain. This area eventually drains into the Grand River and not been previously monitored for E.coli. We collected over 450 water samples and are currently analyzing the results provided by the State of Michigan Drinking Water Laboratory.

Another way we assess the health of our water is taking a look at what critters are living in it. Specifically we sample for aquatic macroinvertebrates which are water bugs that make their homes in rocks, leaves and sediment in stream beds. Aquatic macroinvertebrates are good indicators of water quality as some are tolerant or intolerant to different levels of pollution. This year we helped Mid-Michigan Environmental Action Council assess local streams.



Jennifer Hunnell, ECD, helps volunteer look for aquatic macroinvertebrates.



Michigan Water Stewardship Program Residential Website

Through a grant with the Michigan Department of Agriculture and Rural Development, ECD oversees promotion and updating/editing for a statewide water quality website called the Michigan Water Stewardship Program, which can be found at www.miwaterstewardship.org. The website includes games, lesson plans, tools for homeowners, conservation courses, and more.

Promotional efforts in FY 2014 aimed to make as many residents aware of the website's existence as possible, and they seem to be paying off. This year 18,320 people visited the site and reviewed 49,716 pages. Since the website's launch in 2011, 42,005 people worldwide have visited, for a grand total of 158,049 pages viewed. One of the most popular features of the website is the Virtual Water Cycle Model. This model provides students with a visual, animated, interactive view of the water cycle, both above and below the ground, and how our actions can impact our water. Over 6,600 people have used the model so far, with more to follow.



Science Adventure Camp

This year was the 2nd year of the Science Adventure Camp, held at Bennett Park in Charlotte. This event invites 4th and 5th graders to a weeklong camp to get excited about Science. Presenters engage students with hands-on experiments and take-home projects. ECD partners with Eaton County Resource Recovery, the City of Charlotte, and local community volunteers to pull off this fun week.

Stream Improvement

In 2014, Eaton CD partnered with the Michigan Department of Natural Resources, Eaton County Road Commission and the US Fish and Wildlife Service to replace an undersized culvert on Fairview Hwy. This new culvert will allow for increased fish passage and improve habitat in Butternut Creek, a tributary to the Thornapple River.



Wildlife and Habitat

Creating Habitat for wildlife is a core goal of many district and USDA NRCS programs. ECD promotes habitat management through annual tree sales, native plant sales, workshop, information, newsletters, and opportunities. We provide trees and educational trunks to local schools to learn more about natural resources.

Michigan Arbor Day Program

The Michigan Arbor Day Program is run out of the ECD office from a grant from the MDNR. At this year's state Arbor Day Celebration we had 50 classes of 2nd and 3rd graders from 21 schools participate (1,098 students). Through the Go Green Youth Challenge program and sponsorships, we were able to complete 6 community tree plantings totaling 123 trees. The City of Charlotte was included in these community plantings for the first time this year. Through a partnership with Michigan State University Federal Credit Union (MSUFCU), 7 trees were planted around the West Side Fire Station to enhance the grounds as well as celebrate the opening of a MSUFCU branch location in the city. As part of the Go Green Youth Challenge planting program, we also provide mini-grants to communities. In 2014, projects approved for funding included Hartland Township, and the Cities of Zeeland and Chelsea. In addition, the Go Green Youth Challenge program incorporated a Creative Writing Contest for the second time this year. K-12 students were encouraged to express their opinions of trees and use their imaginations to explain what trees meant to them. First place winners received an award to plant a tree at their school in addition to other prizes. Since it began in 2011, the Go Green Youth Challenge program has planted 940 trees across Michigan!



Tree & Native Plant Sales

The Spring Tree/Shrub Sale and Native Plant sales continue to be a success. In total, ECD sold just over 29,500 trees and shrubs at low-cost to encourage habitat. Some of our species are available every year (examples: White spruce, Sugar maple, Dogwoods and Black walnut) while we rotate new species to increase diversity. Some of the special offerings this year were Buttonbush, Hackberry, Bella Apples, and American elderberry. Information about the habitat and water quality benefits of each species is included on our website and in the order catalog. We also work with landowners that are working on USDA Conservation habitat installations or want to target creating habitat for a species

(turkeys, pheasants, etc). The Native Plant sale sold 179 perennial plants (such as Trillium, Black-eyed susans, Big blue stem). This sale is a great opportunity to learn more about the benefits of native plants. Plants are sold individually, or in special purpose gardens such as a raingarden or hummingbird garden.

Hunter Access Program

ECD continued the partnership with the DNR to assist landowners in the Hunter Access Program and monitor the contract agreements. This provides hunting access to the public and provides a rental payment to the landowner. Eaton County has 2 sites enrolled (up from 0 in 2010) for a total of 161 acres. DNR will begin accepting new enrollments in 2015, so if you are interested in learning more, please contact our office.



Habitat Promotion

Every March, ECD staff hosted the annual wildlife workshop with speakers from USDA NRCS, MDNR, Pheasants Forever, Quality Deer Management, and Ducks Unlimited. This provides the public with the opportunity to learn about a variety of programs and activities. This year's guest speaker was Adam Bump from the Michigan Department of Natural Resources. His presentation was an overview of the Wolf Hunt debate, and the species management considerations.

Pheasants Forever partners with ECD to rent out a Truax no-till drill for native grass plantings. This drill rents for \$12/ acre and is available by calling the office. The District also rents out tree planters for planting high quantities of seedlings.

ECD partners on several community wildflower plantings, including: Maple Valley Conservation Area, Charlotte Raingarden, ALIVE's PRESERVE project, General Motors LDT Garden, and more. These sites serve to increase pollinator habitat, protect water quality, and be demonstration sites for landowners.

Newsletters, events, and workshops are a great opportunity to educate the public about wildlife habitat and invasive species. In 2014, ECD sent 3 paper newsletters, 13 e-newsletters, and published over 24 news releases. We partnered to help organize the Charlotte River Conservation Day and Thornapple River Clean-ups and with volunteer help picked up trash, planted trees, and pulled invasive species.



Organization Sustainability

In order to be a sustainable organization, ECD has identified the following strategies: 1) Recruit and train board members, 2) Provide continuing education for staff, 3) Increase and diversify funding sources, 4) Provide opportunities for volunteer involvement, and 5) Engage stakeholders.

These 5 core strategies are crucial to the strength of our organization. In 2014, staff and board members attended trainings on the Food Safety Modernization Act and the MI Safe Risk Assessment Tool, Forage Management for Sheep and Goats, Drip irrigation, Michigan Family Farms conference, Northern Michigan Small Farm Conference, Great Lakes Fruits and Vegetable Expo, Michigan Alliance for Environmental and Outdoor Education Conference, Invasive Species Management, and Program evaluation. Board and staff continue to seek additional and diverse funding mechanisms including tree and material sales, foundation and local funding support, State and Federal Grants, and partnerships with businesses.

MSU Student Projects

This year we helped to facilitate two different MSU student projects that focused on local agriculture. The first was journalism student Kelsey Block, who was interning for Lansing NPR radio station WKAR. Kelsey was working to compile a story, interviewing local farmers, about how they felt agriculture had changed over the years. ECD introduced her to several local growers, whom she interviewed about changing technology, regulations and traditions in Agriculture. The story will air on WKAR this winter.

ECD staff also worked closely with Julie Cotton's MSU graduate student class, Sustainable Agriculture and Food Systems: Integration and Synthesis. Students were taught about the overlap between water quality practices, like those outlined in MAEAP, and best practices for on farm food safety in fruit and vegetable production. The group was tasked with finding a way to market MAEAP and managing farms for water quality as a pathway to begin preparing for new on farm food safety regulations coming down as part of the Food Safety and Modernization Act. They updated some existing resources and created a great promotional piece to reach out to producers and alert them to existing services.

Outreach

Reaching stakeholders through a variety of events and outreach is important to the Conservation District. ECD continues to utilize the internet to inform the public and promote programs through our website, facebook, twitter, and e-newsletters. Our e-newsletter subscribers increased from 725 to 1077 people in 2014. The Michigan Arbor



Day Alliance program also produces two e-newsletters each month. One of these specifically targets Michigan's educators and contains educational events and trainings, funding opportunities, and fun hands-on activities to use in their classrooms. Our website at www.eatoncd.org has been a great resource, with over 3,020 users and 8,835 page views this year. The most popular pages are the topics of plant sales, programs, events and announcements.

NRCS Accomplishments **Tim Redder, District Conservationist**

The year of 2014 was a year of uncertainty and change for NRCS due to the passing of the Agricultural Act of 2014 (also known as the Farm Bill) in February. The bill was signed by President Obama nearby in East Lansing on the MSU campus. The passing of this legislation has created revisions to most programs and eliminated some as well. Eaton County producers should be happy knowing that Agricultural Conservation funding is stable now for the next four years! Some of the programs available now are the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP) and the Agricultural Conservation Easement Program (ACEP). Stop in to get more information on how one of these programs may benefit your farm.

There were numerous conservation practices implemented with assistance from the Natural Resources Conservation Service (NRCS) in Eaton County in 2014. NRCS had the privilege of working with a diverse group of landowners across the county to address resource concerns on different land uses such as: pasture, cropland, grassland, forestland and farm headquarters. Below is a list of the practices that were completed by landowners in Eaton County with assistance from NRCS in FY 2014:

Grazing Practices:

- Grazing Plans written (3 no.)
- Fence (1,780 feet)
- Rotational Grazing (35 acres)

Cropland Practices:

- Conservation Crop Rotation (85 acres)
- Nutrient Management (595 acres)
- Pest Management (1,775 acres)
- Cover Crop (202 acres)



- Microirrigation Installation (1 no.)

Farm Headquarter Practices:

- Composting Facility (1 no.)
- Agrichemical Containment Facility (1 no.)
- Fueling Facility (1 no.)
- Seasonal High Tunnel (Hoop House) (1 no.)
- Microirrigation Installation (1 no.)
- Heavy Use Protection (1.5 ac.)

Wildlife Habitat Practices:

- Noxious Weed control (78 acres)
- Brush Management (85 acres)
- Tree Planting (410 acres)
- Wetland Restoration (175 acres)
- Riparian Cover Planting (3.5 acres)
- Forest Management Plans Completed (2 no.)
- Conservation Reserve Program (CRP) plans written (3 no.)

The Eaton Conservation District and the Natural Resources Conservation Service would like to thank all the landowners in Eaton County who have applied conservation practices either on their own or through a program to help protect and sustain our natural resources. For more information on the above conservation practices or conservation programs that are available, please call the office at (517) 543-1539 ext 3.

