

Antrim Conservation District Annual Report

Includes: Soil Erosion and Sedimentation Control, Forest and Wildlife Management, Household Hazardous Waste Program in addition to other District programs

Submitted by:

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Executive Summary 2017

This past year the Antrim Conservation District focused on hiring two new employees to expand the function and improve efficiency of the District. This was made possible by gap funding provided by the County (until the millage funds became available in 2018). These staff members focused on the operation of the District and improving and growing District programs.

The District saw an increase in program involvement in 2017, directly serving over 1,200 County residents while continuing to advance the enjoyment and stewardship of Antrim County's natural resources. One of the main programs that saw continued use and growth was the Household Hazardous Waste drop of days. We collected over 35,000 pounds of waste over three events.

In August, the Soil Erosion and Sedimentation Program was audited by the Michigan Department of Environmental Quality (DEQ). This was a three-day event with the DEQ auditor present in the office reviewing paperwork and out in the field reviewing active sites with the Soil Erosion Officer. After the audit, the program made some necessary changes to permit applications along with some other internal operations. After implementation of these changes, the program has been granted approval by the State. This audit and approval is valid for five years, when another audit will be conducted.

Likely the most exciting development in 2017 was the creation of our Natural Resources Education Program. This program is being developed to educate all age groups in the conservation, sustainable use and value of Antrim County's Natural Resources. We received our first opportunity for this program at the Lake Land Elementary School in December. Our staff and board member taught second-grade classes about groundwater and how different substrates affect groundwater movement.

The District looks to continue and expand our Education program widening it to include recreational education and opportunities in Antrim County. Most of our education events will be driven by County residents needs/interests. Right now, we have a Wildlife Habitat and Management talk as well as a Healthy Farms Healthy Profits event on the agenda for 2018. Additionally, we will be putting on an eight-day program at the Ellsworth Highschool as part of their "Lancer Leap" program.

The District Looks forward to continuing to serve Antrim County and its residences and strives to be the first stop for all things Natural Resources and Outdoor Recreation. As always if you have questions, comments or ideas please feel free to reach out to me at the District.

Highlights from 2017

1. Four-year contract signed with the County
2. Hired two full time staff members, District Manager and Conservation Program Manager
3. Collected over 35,000 pounds of household hazardous waste
4. Received a grant for scrap tire collection
5. Acquired 165-acre Cedar Swamp
6. Had contact with/assisted over 1,200 people in Natural Resource and stewardship needs

Financial Position

Year End 2017

The District and its programs received funding from State, Federal and County funding sources as well as sales revenue. The District brought in over \$50,000 in Federal and State funding specifically for invasive species management.

Revenues	
County Allocation	\$20,8657.00
Local/State/Federal Grants	\$61,400.38
Timber and Reforestation	\$14,216.90
Plat Book Sales/Adv. Income	\$3,229.02
Fees for Service	\$40,701.56
Donations	\$21,111.65
Interest Income	\$356.31
Miscellaneous	\$876.00
Total Revenues	\$350,548.8
Expenditures	
Wages	\$16,1820.6
Payroll Taxes and Fringe Benefits	\$46,562.99
CAKE – Operational Expenses	\$55,469.30
Trees/Reforestation Expense	\$12,693.33
Vehicle Expense/Mileage	\$6,992.71
Utilities	\$6,148.14
Supplies/Equipment/ Postage	\$20,772.77
Business Insurance	\$5,243.11
Training	\$538.00
Project Costs	\$5,641.11
Household Hazardous Waste	\$2,077.41
Outreach	\$1,063.46
Annual Meeting	\$56.95
Accounting/Legal	\$2,035.00
Building Supplies	\$375.00
Miscellaneous	\$10,507.17
Total Expenditures	\$337,997.10
Excess (Deficiency) of Revenues over Expenditures	\$12,551.73
Fund Balance - Beginning of Year	\$19,768.28
Fund Balance – End of Year	\$32,320.01

Antrim County Soil Erosion and Sedimentation Control Report Year End Review – 2017

Soil Erosion Program is a State mandated program. Antrim County has also enacted a County wide Ordinance (2008) the Soil Erosion Officer enforces along with the State regulations. Both the State regulations and County Ordinance pertain to any earth work done within 500 feet of a stream, lake or other surface water or earthwork over one acre in size.

In 2017, 225 permits were issued. This netted \$28,935 in revenue to the County.

Our Soil Erosion Program underwent an audit performed by the Department of Environmental Quality in August of 2017; our program was last audited in 2004. This audit consisted of three days of program review. The first day was spent in the office reviewing past and current documentation necessary for the program to meet State requirements. The second and third days were spent in the field reviewing sites for properly permitted and installed soil erosion control measures. The District and County Commissioners were provided a written review summarizing the results of the audit. The District along with the County were informed that the Soil Erosion Program was unsatisfactory and needed to make improvements to several aspects of the program within 60 days to return to compliance status. Program improvements that have now been enacted and approved by the State are:

1. Site visit prioritization matrix
2. Soil Erosion control application
3. Fine escalation policy
4. Inspection tracking template
5. Cease and Desist order
6. System for proper documentation and follow-up
7. Permit template

As of February 21, 2018, the program has passed the State Audit and is now granted “approved” status. The DEQ has an audit cycle every five years.

As it has become a staple of the Soil Erosion Program, a Contractors’ workshop was held in early March with over 30 local contractors attending. The purpose of this annual workshop is to answer any questions about permits, soil erosion control measures or address any other questions contractors may have before the upcoming construction season.

The Soil Erosion Officer also participated in MESCA’s (Michigan Erosion and Sedimentation Control Association) meetings and trainings. The Soil Erosion Officer also hosted a training for 18



2017 Contractors workshop held at the Blue Pelican Inn in Central Lake

AmeriCorps Members as part of the Conservation District's partnership with the Huron Pines AmeriCorps Program.

The Soil Erosion Program is undergoing some changes in 2018. Specifically starting January 1st, 2018, permit fees have been increased 50% at each fee level. This was done to help offset the cost of the program to the County. Also, in 2018, the District will be using BS&A software to improve program effectiveness and allow the program to become paperless.



Group of AmeriCorps Members at the Soil Erosion training put on by the District

Antrim County Forest and Wildlife Management Report Year End Review – 2017

The Forestry Program continues to provide technical services to county parks, natural areas, public forest lands, private landowners, groups, schools and non-profit organizations within Antrim County. This year-end report summarizes the major activities that took place within the Forestry Program over the past year.

NATURAL AREAS

The County owns and is responsible for the management of five (5) designated natural areas, Antrim Creek, Grass River, the Cedar River, Glacial Hills, and the newly named Mohrmann Natural Area.

The Forester is called upon to direct forest management, assist with maintenance issues and provide general assistance to boards, committees and non-profit groups who are using county lands for recreation and/or educational purposes.

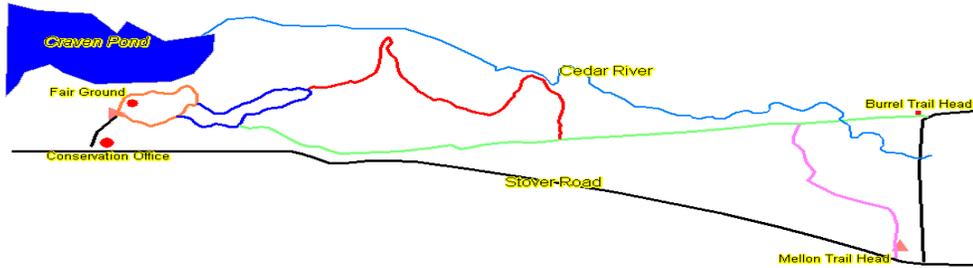
GRASS RIVER

As part of the planning process, the Grass River Board appointed a conservation committee to oversee the writing and implementation of a management plan for the natural resources within the Grass River Natural Area. The forester has been an active member in the planning process through this committee.

CEDAR RIVER

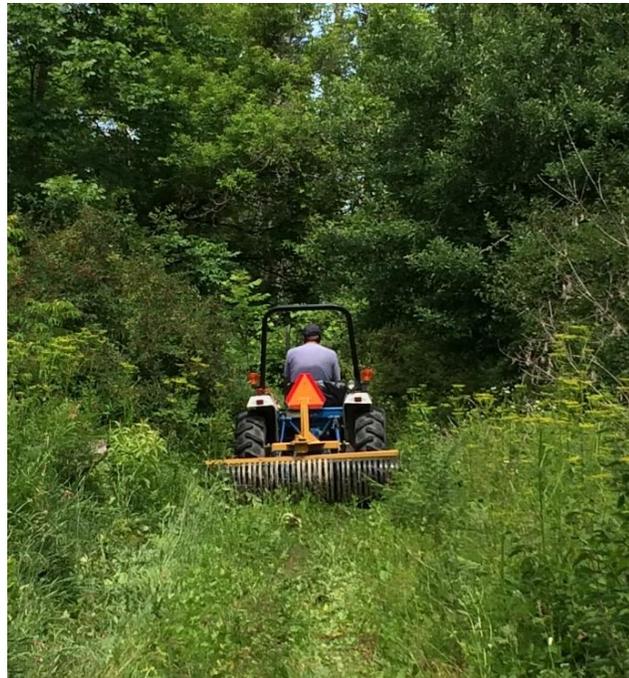
The Antrim Conservation District is responsible for the management and maintenance of this natural area. The Cedar River Natural Area contains 226 acres of forest and recreational lands along the Cedar River. The Cedar River Natural Area is jointly owned by the Village of Bellaire and Antrim County.

The forester manages this natural area for forest ecology, wildlife, fisheries, trail activities and general public land use within the Natural Area.



Map of trails at the Cedar River Natural Area

Trail Maintenance is a constant activity in this natural area, encompassing hazard tree removal, topdressing the trail bed, widening trails, and bridge maintenance. There are three miles of educational trails within the natural area showcasing unique habitats and is listed as a “Sunset Coast Birding Trail”. These trails are used year-round for hiking, cross-county skiing, snow shoeing, and birding. Portions of the trail network were re-designed to accommodate the 5K run held by the Antrim County Fair.



County Forester fixing a damaged bridge from a downed tree at the Cedar River Natural Area (left). County Forester prepping the Cedar River Natural Area trails for the annual Antrim County Fair 5K (right).

LAND DONATION

This year the Boucher family donated 165 acres to the Antrim Conservation District. The Boucher family has been and still are strong supporters of the Conservation District and the natural resources of Antrim County. They have worked with the District and its forester for years to improve their properties’ ecosystems, including their forested lands. The Boucher’s are great citizen conservationists as they have

planted tens of thousands of trees on their properties throughout the years. These plantings not only benefit their properties but also Antrim County's wildlife.

The District plans to establish a low impact hiking trail on the property similar to that of the Cedar River Natural Area.

GLACIAL HILLS

The Glacial Hills Natural Area is part of a larger county owned forested area. This year the forester continued the removal of trees impacted by the emerald ash borer and beech bark disease. Glacial Hills and the adjoining Kirkpatrick Forest Area contains the Glacial Hills Pathway. Forest ecology and hazard tree management continues to be addressed within the natural area and other county forest lands.



Fallen tree over a trail at Glacial Hill. The tree was removed by the County Forester

MOHRMANN NATURAL AREA

Formally known as Mohrmann Park, the Antrim County Commissioners renamed the park area as the Mohrmann Natural Area dedicated to the Mohrmann family in 2017. This Natural Area contains several short trail loops used for walking and hiking. In 2018, the Natural Area trail network will receive much needed trail updates.



One of the bridges that will be repaired in 2018. You can see the bridge starting to bend

ANTRIM CREEK

Antrim Creek is a 160-acre natural area along Lake Michigan in Banks Township. An appointed local board is responsible for oversight of the Natural Area.

Forestry activities at the Antrim Creek Natural Area are primarily addressing tree maintenance issues. The forester routinely removed trees from the trails and boardwalk areas. This year, the forester focused on the removal of dead ash trees from the access road and trails within the natural area.

PARKS

The forester is called upon to assist with the maintenance of park properties owned by the County. County Parks that receive treatments and recommendations from the forester include: Barnes Park, Elk Rapids Day Park, Willow Day Park and the Wetzel Lake Day Park. In addition to County Owned Parks, the forester assists local units of government with tree issues within their local community parks.

ANTRIM COUNTY FOREST LANDS

In addition to the Natural Areas and designated Parklands, the County owns 3,000 +/- acres of lands dedicated as forest land. These acres are managed for multiple recreational activities, forest product production, wildlife habitats, as well as ecological and open space protection. The County Forester is responsible for the forest inventory, forest management and planning, sale administration and monitoring of wood products being sold from County Forest Lands.

Timber harvests and other land management activities are guided by Forest Management Plans written by the County Forester. These management plans include best practices including, when to harvest, what to harvest, protection of wetlands, revegetation and fire management among others. These plans are written and reviewed for every parcel. Reviews are typically done after a harvest event, other changes to the property (invasive species presence) may result in additional reviews.

County lands are also used for environmental educational activities administered by the Conservation District. An array of activities occurred on these parcels this year.

FORESTRY REVENUES

One of the primary benefits of County owned forest land is the ability to generate revenues through sustainable forestry practices. Revenues generated from timber harvesting are used to maintain county forests, allowing for new tree plantings. Forestry revenues are also used as grant matching funds, park and natural area projects and maintenance, legal reviews and opinions.

Revenues from timber harvesting in 2017 – 2018 are \$ 97,470.00 to date.

Leonard Road Timber Sale – Custer Township

This year a forest management harvest was conducted on the County owned Leonard Road parcel. This 80-acre parcel was selectively harvested generating \$ 31,470.00 of revenues. Timber sales conducted on County owned properties are competitive bid sales.



Loading timber for trucking from the Leonard Road property harvest.

Hawk Lake east of Mancelona

The Hawk Lake parcel is a 160-acre parcel of County owned forest land east of Mancelona. In 2016, a commercial harvest was prepared for the parcel. The harvest consisted of the cutting of 25 acres of red pine and the thinning of selected hardwood. Harvesting began on the property in March of 2017 and was completed by the end of May. The revenue for this harvest was \$66,000.00. The harvest was followed up with a reforestation project. This project re-established 20,000 red pine in the fall of 2017. In addition to the red pine, white oak, red oak and spruce were also planted earlier in the spring for wildlife purposes.



Hawk Lake property after 25 acres of red pines were harvested (left). Replanting the Hawk Lake property with red pines. Other tree species were also hand planted (right).

Glacial Hills west of Bellaire

The Glacial Hills Parcel is part of a larger forest land area owned by Antrim County. The Glacial Hills Natural Area and the contiguous Walter Kirpatrick forest are actively managed County forest. Forest management is aimed at producing higher valued forest products, wildlife habitats and reducing tree liabilities for recreational users.

This year 2016 – 2017, 100 acres received forestry treatments that focused on the removal of dead and declining ash and beech species. Following this harvest, over 2,000 red oak, white oak and white pine seedlings were hand-planted in heavily harvested areas. The tree planting was aimed at long term replacement of mast producing trees for wildlife purposes.

Private Land Assistance

Through the County Forestry Program, the Conservation District is able to provide technical assistance directly to private landowners within Antrim County. Technical assistance includes wildlife habitat management, forest management, tree planting, insect and disease identification, management planning, referrals to private sector, referrals to governmental sectors and other conservation goals.

PRIVATE LANDOWNER ASSISTANCE

Contacting the forester – 301

Onsite assistance – 89

Onsite acreage – 2,225

SCHOOLS

The Ellsworth Schools own 140 acres of forested land in Banks Township. This year the forester assisted the school board with long term planning and the implementation of timber harvesting on the parcels. Timber was harvested this year with the revenue going to the school.

Household Hazardous Waste Program Report Year End – 2017

The Conservation District held three Household Hazardous Waste (HHW) collection days in 2017. The first collection event was Saturday, May 13th in Elk Rapids at the DPW station. This event also coincided with Green ER Days, a community cleanup/recycling event. The event was held from 9 am to 1 pm. Waste was collected from 202 residents comprising 14,175 pounds of waste. The second HHW collection was held in Bellaire on Saturday August 5th from 9 am to 1 pm at the County parking lot next to the food pantry. During this 4-hour event there was 13,291 pounds of waste collected from 203 residents. The third and final HHW event for 2017 was held Saturday September 23rd at the Mancelona Family Fare. There were 88 residents who dropped off 9,168 pounds of household hazardous waste. In total over 35,000 pounds of HHW were collected in 12 hours. The majority of the waste collected was latex paint. Almost 20,000 pounds of paint were collected in all three events.



A volunteer loads paint into a “cowboy” for shipping of paint for disposal (left). Bins of pesticides collected at the HHW events for proper disposal (right).

In addition to the County sponsored HHW, the District wrote and received a grant to collect scrap tires at the Elk Rapids and Bellaire HHW events. The District collected 280 tires in May and another 881 tires in August. This is the first time in several years the District has offered scrap tire collection. The District applied for and received another scrap tire grant for 2018 allowing county residents to again safely dispose of scrap tires.

The Household Hazardous Waste events are always appreciated by County residents who use the service but also by those who don’t participate. All residents express their support for the removal of hazardous items from our trash stream and from ending up in our local waters and lands.



The District's 2017 AmeriCorps Member loading tires into a trailer for recycling off site.

Natural Resources Education Program Report

Year End – 2017

The end of 2017 was exciting for the District. We were able to hire a Conservation Program Manager. This position allowed us to begin developing our Natural Resources Education program in December. Shortly after starting to develop this program, Lakeland Elementary school invited the District to teach a lesson on groundwater to their 2nd grade students. The staff and board members provided a hands-on learning experience filled with activities and discussion. Students were able to build their knowledge of how groundwater flows depending on the different ground materials (rock, clay and sand) and their corresponding permeability.

The Natural Resources Education Program will continue to expand in 2018. The goal of the program is to provide education on Antrim County's natural resources to all of Antrim County's residents regardless of age through discussions and hands-on projects focusing on the stewardship of our County's natural resources.



Second graders from Lakeland Elementary school participating in a grow water flow activity. Also pictured are a District board member and teacher.

Hunting Access Program Report

Year End – 2017

In 2017 the DNR and MDARD expanded their Hunting Access Program (HAP) to include counties located in Northern Michigan. As a result, the Antrim Conservation District received a grant from the DNR to administer HAP in Antrim County. The Hunting Access Program originated to coincide with Michigan's strong hunting tradition by providing hunters more access to hunting opportunities. Through enrollment in the Hunting Access Program, private landowners are offered financial incentives by allowing hunters access to their land. Not only are private landowners eligible to receive funds, they are also free of any liability with coverage under enrollment in the Hunting Access Program.

Antrim Conservation District is currently looking to enroll more Antrim County landowners in HAP. The two main requirements to enroll your property into HAP are: properties must be greater than 40 acres and not bordered by State land. Enrolled properties can earn as much as \$25 per acre depending on type of land cover and hunting options selected. The Hunting Access Program is very flexible for property owners giving them the option to choose number of hunters and game species. As the program administrator for Antrim County, ACD is tasked with making sure all regulations are followed by hunters and the property owner. If Antrim County residents are interested in enrolling their property or would like more information on the program, they are encouraged to contact Mike Meriwether (County Forester) at 231-533-8363 ext. 2.

CAKE CISMA Program Report Year End – 2017



CAKE CISMA presenting invasive species management and identification to a group of concerned citizens.

The Charlevoix, Antrim, Kalkaska and Emmet County Cooperative Invasive Species Management Area (CAKE CISMA) is a partnership of federal, state, local and tribal agencies, as well as various interest groups, that manage invasive species in Northern Lower Michigan. The CAKE CISMA was formed in 2015 with a two-year grant awarded by the Michigan Invasive Species Grant Program (MISGP). The goal of the CAKE CISMA is to protect the natural resources, economy and human health of Northern Lower Michigan through collaborative outreach and management of invasive species.

In 2017, the CAKE CISMA continued its cost-share program by helping landowners manage invasive species on their properties. Any landowner (public or private) within the four-county service area is eligible to receive CAKE conducted field site surveys and technical assistance, as well as up to 80% of treatment costs of select priority species. The CAKE CISMA had approximately 37 sites totaling approximately 151 acres across the four-county region participate in the cost-share program in 2017, which included both private residences and municipalities. Of these sites, 19 were located within Antrim county (66 acres), with the majority being phragmites located on the Antrim County's Lake Michigan shoreline. The CAKE CISMA performed an estimated \$2,370 in treatment on these sites within Antrim County via the cost-share program. In addition to treatment, CAKE surveyed both public and private lands for invasive species across its four-county service area. In 2017 a total of approximately 1,248 acres were surveyed for invasive species with 409 acres surveyed in Antrim county alone.

The CAKE CISMA continued to hold several outreach and education events across the four-county region throughout 2017 with over 190 active impressions from attendees. In Antrim County, a volunteer garlic mustard pull was held at Glacial Hills Pathway and Natural Area which saw 12 residents participate alongside local AmeriCorps members. Other Antrim County outreach events included presentations at the Antrim Soil Erosion Officer's Contractors Meeting and the Juniper Garden Club with over 65 active impressions made with attendees. In addition, CAKE CISMA and their partners, led an invasive species pull event with 60 4th grade students from Charlevoix Public Schools. Students learned the threats invasive species pose to ecosystems, specifically garlic mustard, and then learned to identify this invasive species. Students spent 1 hour removing garlic mustard from the North Point Natural Area in Charlevoix. The result was an astounding 1,000+ pounds of garlic mustard removed from the area!

The core functions of the CAKE CISMA will continue through 2018 thanks to a \$60,000 grant awarded via the MISGP. This will allow the CAKE CISMA to continue to be the go-to resource on invasive species in Antrim County and the surrounding service area. Continued active management of invasive species within the CAKE service area into 2018 is contingent upon approval of a grant extension by the MISGP. This extension will be to utilize unspent funds from the previous grant award of \$138,000 on invasive species treatments in the form of continuing the cost-share program and/or forming an invasive species strike team.



CAKE CISMA coordinator and a group of volunteers at a garlic mustard pull at Glacial Hills

Huron Pines AmeriCorps Report Year End - 2017

Since 2012, the Antrim Conservation District has been a host site for the Huron Pines AmeriCorps Program. This program is designed to develop leaders in conservation with host sites all across the state. Our 2017 Huron Pines AmeriCorps member began her service term as our Stewardship Coordinator in January and ended in late October, serving over 1700 hours. As the Stewardship Coordinator, she worked within each of the District's program areas to assist with developing outreach materials, coordinating field projects, building partnerships, and promoting conservation education.

One of the major highlights from the AmeriCorps member was being a part of the Elk River Chain of Lakes shoreline survey project in partnership with Tip of the Mitt Watershed Council. Our member participated in the shoreline surveying of Lake Bellaire, Clam and Torch Lakes and Grass River. The survey was to assess the condition of the shorelines as far as habitat availability, presence of cladophora, vegetative buffers, any erosion and the range of the shoreline development.



The District's 2017 AmeriCorps Member hosting a kid's corner activity. In the sensory box are different tree and wood products for the kids to guess.

Miscellaneous District Programs Report Year End - 2017

The District held its annual Tree Sale again in April. We sold over 20,000 trees to County residents. These trees and shrubs will add to the magnificent nature of Antrim County's natural resources. The District also held its first native plant sale in several years in May. Revenues generated at this event will help fund the Spencer Creek Rain Garden project planned for summer of 2018.

In 2017 our AmeriCorps Member took on the project of restoring and improving the Spencer Creek Rain Garden. The garden was created by the District and other partners in 2008. The garden was created to manage storm water runoff, and its associated pollutants such as fertilizers, road salts and oils. Since the construction of the garden it has become full of sediments making it ineffective at capturing storm water and nutrient runoff. We have designed and began acquiring funding to restore and revamp the garden to increase its efficiency. At the end of 2017 we had submitted two grants for funding of the garden and are also seeking donations. The project is scheduled for a June 2018 install.

The District sponsored and managed the fifth annual Petoskey Stone Festival 5K. We had 36 participants ranging from eight years old up to 70 plus. After the 5K was completed, the District manned a booth that had over 200 contacts of Antrim County property owners. At the booth, the District helped people with natural resource questions including native planting needs and property management for better natural resource usage and conservation.



The start of the 5th annual Petoskey Stone Festival 5k (left). District Staff at their booth during the Petoskey Stone Festival. The booth was full of information packets and native trees and plants for sale.

The District in partnership with NRCS and Shooks Farm held a *Soil Health Field Day* for local farmers and interested residents. At the event experts discussed the best management practices for increasing and protecting soil health. A healthier soil will yield more crops and reduce runoff thus increasing a farmer's profit. One of the subjects presented was cover cropping and its benefits. Another field day is being organized for August of 2018.

The District hosted a *Bioindicators of Water Quality Field Day* in August where interested residents and lake association members experienced a hands-on learning opportunity to understand the role macroinvertebrates play in assessing water quality along with sampling techniques. This field day was led by a Wetland Ecologist from Central Michigan University and the District Manager.



Guest presenter Sasah Bozimowski is pictured hold a water bottle discussing the merits of biological indicators over just collecting water samples, with an attendee. Attendees were also dipping aquatic invertebrates which were later identified.

Board Statement Year End 2017

Through the continued support of the Antrim County commissioners and the passing of the 2016 millage by Antrim County voters, the ACD has a promising future. The district employees and board are working together to help strengthen current district programs, find opportunities for district growth, and raise awareness of the excellent work the ACD staff does and can do for county residents and visitors alike.

District Manager Thomas Clement is doing a wonderful job growing into his role as a leader and executing the ACD vision with thought and care. Forester Mike Merriweather, Soil Erosion Officer Heidi Schafer, and CAKE-CISMA Coordinator Dustin Jordan have continued to perform their work reliably and act as great representatives of the ACD. Meghan Chase, Conservation Program Manager, brings enthusiasm and ambition into this newly created position.

Three newly elected board members joined in late 2016. Each member has a unique background they can draw from to be effective in their board roles to help the district plan wisely for the future.

For 2018, we are looking forward to serving area residents and showing the value that the ACD brings to the county.

Joe Pomerville, Board Chair