

**Lenawee Conservation District**  
**Resource Assessment**  
**2018 – 2023**

**Mission Statement**

*To guide the locally led process with urban and rural harmony, for the protection of soil and water resources through education and technical assistance, creating a quality environment.*

**Executive Summary**

Lenawee Conservation District is located in the Adrian Field Office of the USDA Service Center and is governed by a five member Board of Directors, which assemble on the third Monday each month. District Manager oversees the day-to-day operations of the District and supervises six District staff. The District Manager, Education/Marketing Coordinator, and Field Technician comprise the base district staff. A Farm Bill Biologist works on the Conservation Reserve Program (CRP) and the Michigan Pheasant Restoration Initiative (MPRI) covering Lenawee, Monroe, Washtenaw and Hillsdale Counties. There are three Michigan Agriculture Environmental Assurance Program (MAEAP) technicians. The USDA Natural Resources Conservation Service (NRCS) provides a District Conservationist, two Soil Conservationists, a Soil Conservation Technician, and a Farm Bill Program Assistant. Since the Adrian field office is a training facility, at times one or two Soil Conservationist trainees are assigned for two or three years of service duty. Currently two (2) NRCS staff work at the Adrian USDA Service Center full-time providing technical assistance to the Conservation District.

Lenawee Conservation District staff work in partnership with state, local and federal government agencies to address resource concerns. Citizens within the Conservation District boundaries are provided with assistance, resolutions, or referrals of conservation and environmental issues to the natural resources in the county.

**District Overview**

Established in 1946, Lenawee Conservation District is an independent county level resource assisting residents, producers, and communities to help resolve natural resource concerns. The District is self-funded, serving the public with revenue obtained through an annual tree sale, grants, and County appropriations.

As a result of the Dust Bowl in the 1920s from severe erosion due to negatively impacting farm practices, Congress established the NRCS, which directed money toward programs that would help protect natural resources and empower landowners to become better stewards of the land. But with no delivery approach for the federal programs, Congress realized that a local level organization was needed to help promote conservation programs that were available to agricultural landowners. Thus, a Conservation District Law was established, allowing communities to elect their own county conservation district boards, which would partner with the federal agencies and serve as the storefront and information center for available conservation programs and assistance.

The District is administered by a publicly elected, five-member board of directors. The board makes all decisions regarding the District's programs and activities. The Directors hire qualified staff to conduct and carry out the programs and activities that have been approved.

### **Lenawee County Overview**

Lenawee County was established in May 1824, in the southeastern part of Michigan. The county is rectangular in shape; about 30 miles from east to west and 25 miles from north to south. Total land area is 754 square miles, or 482,560 acres. Adrian is the county seat.

By executive order Governor Cass laid-out and defined the boundaries of Lenawee County on March 28, 1820. The boundaries of Lenawee County were described therein as follows: "All the country included within the following boundaries: beginning on the principal meridian, where the line between the townships numbered four and five, south of the base line, intersects the same, thence south to the boundary line between the territory of Michigan and the state of Ohio; thence with the same east to the line between the fifth and sixth ranges east of the principal meridian, thence north to the line between the townships numbered four and five, south of the base line; thence west to the place of beginning, shall form a County to be called the County of Lenawee." Thus it will be seen that the County as then formed was-in extent and according to boundaries the same as it is today, although it was fully understood at that time that the southern boundary included the "disputed strip" that later was given to Ohio by a legislative compromise in Congress. What is now Lenawee County was a part of Wayne County from the organization of the latter in 1815, until July 14, 1817, when it became a part of Monroe and so remained until erected as an independent division as above described.

The first settlement in Lenawee County was made on May 21, 1824, on the present site of the village of Tecumseh. On March 2, 1833, there was an appropriation, for continuing road from Detroit toward Chicago, in the territory of Michigan, \$8,000.

The word Lenawee comes from the Native American Shawnee word meaning "men" or "the people". Lenawee County contains several cities and villages, with the largest being Adrian and the second largest being Tecumseh. The northwest part of the county known as "The Irish Hills," is a very popular tourist destination, with over 50 lakes that are perfect for recreation. The lake area has been a hot spot since the 19<sup>th</sup> century, and was created by the retreat of the glaciers that covered most of North America 10,000 years ago.

Population in 1890 was 48,448 and in 2010 it was 99,892. Agriculture encompasses nearly 85% of the land area. Agriculture is an important industry in the county with farm income derived from field crops to livestock production. The majority of crops produced include corn, soybeans, wheat, hay, vegetables, fruit, and specialty crops. Much of the agricultural land is protected by PA 116. Local farmland protection efforts have met opposition from developers. Non-farm workers are engaged in manufacturing and service occupations. Most manufacturing companies have transferred from the area making agriculture the foremost economic industry in the county.

Urban sprawl and development has fragmented the agricultural land, wildlife habitat, and threatened endangered species. Conservation Reserve Enhancement Program (CREP) had helped to bring back some ecological balance, but zoning and land use planning are needed to preserve prime farmland and the more sensitive areas in the county.

Water quality has been identified as a major resource issue in the county. Local agencies work in partnership to protect surface and groundwater. Water quality is vital for human existence, consumption, aesthetics, recreation, and wildlife in the county. The River Raisin Basin and Maumee Basin are major watersheds in the county, with 1,500 miles of streams and tributaries flowing into the two basins. Two communities in Lenawee County use the River Raisin as a source of drinking water. Other municipalities and rural homes utilize wells to supply potable water.

There are 154 distinct types of soils in Lenawee County that are grouped into 53 different soil series. These soils range from well-drained sandy loams to poorly drained clays. The glacier left the topography in the county varying from rolling in the northwestern portion to level and undulating in the east and southeast.

Soil quality and water quality issues are addressed with a variety of programs. Environmental Quality Incentives Program (EQIP), Conservation Reserve Program (CRP), 319 grants, and special grants helped to fund Best Management Practices (BMPs). Conservation tillage practices are promoted to diminish the effects of runoff in highly erodible cropped fields.

### **Purpose of Assessment**

In order to accomplish the District's mission of educating and assisting the people of the County with conservation and management of natural resources, the issues and concerns related to those natural resources need to be identified. Every five years, the District conducts an assessment for this purpose. The procedure used to create this assessment started with contacting stakeholders to gather input on resource issues, concerns, and prepare resource assessment document which summarizes the information obtained and identifies the District's priority issues for the next five year period.

As a result of this resource assessment process, the prioritized major natural resource/environmental issues identified were: **Forest & Trees, Land Use, Water Quality, Wetlands, and Wildlife & Habitat.**

The District has tried to be comprehensive in developing this assessment, but certainly not all issues or concerns may have been identified. Such a task requires constant awareness and cooperation among the many public and private agencies, groups and organizations, the public, as well as education and assistance to the individuals and groups wanting to take action. Since the District does not have the resources to impact all of these issues identified, it must assist many other public and private agencies and organizations within the County, and rely upon their strengths to get the job done. This role of collaboration and coordination is possibly the most important opportunity for the District, to address the identified resource issues.

This resource assessment will be used by the District to update the current long-range strategic plan. Annual plans of work will then be prepared which identify actions the District will take to address the priority issues outlined in the resource assessment.

### **Stakeholders**

The survey was emailed to constituents and could be completed at the District website. Stakeholders include: Lenawee County Drain Commission, MSU-E, Lenawee County Health Department, County Commissioners, farmers, landowners, state legislative representatives, educators, business owners, wildlife organizations, construction contractors, health workers, and urban and rural residents. Survey responses were ranked by number responses and rankings were evaluated by the Board of Directors, district staff and NRCS District Conservationist.

### **Survey**

A resource assessment survey was developed which listed issues and specific concerns related to the general issues generated from the previous assessment, plus some additional new issues that have become of more concern in recent years. See Appendix A for a copy of the survey.

Survey respondents were asked to rank their top three resource issues and also rank their top three concerns for each of their top three issues. The priority of the concerns was determined by the total number of responses received for each concern. Respondents also had the opportunity to add other issues and concerns not listed.

The survey was distributed using the following methods:

- Internet based survey launched via email message or email newsletter
- Direct link to survey from the District website home page

36 survey responses received.

### **Results**

Those completing the resource assessment survey were asked to rank their top three natural resource/environmental issues using a 1, 2, 3 ranking with 1 being the most important issue. The overall priority for these issues was determined by the total number of responses received for each issue.

Survey respondents were also asked to rank their top three concerns for each of their top three general issues. The overall priority of concerns was also determined by the total number of responses received for each concern.

Following tabulation of responses, the prioritized major resource issues were: **Water Quality, Wildlife & Habitat, Land Use, Wetlands, and Forest & Trees**. Each issue is briefly described below.

### **Water Quality**

The quality of our surface and ground water is affected by many factors, including point and non-point sources of contamination. Soil erosion and sedimentation, fertilizer and pesticide use, road runoff, septic systems and other sources all impact water quality. Surface and groundwater in Lenawee County is used for drinking, recreational, and aesthetic purposes. Maintaining good water is vital to the health and quality of life in the County.

### **Wildlife & Habitat**

The presence of wildlife in Lenawee County is an asset that is enjoyed by many residents, but also poses negative impacts when wildlife damages agricultural crops and livestock, causes traffic accidents, or is displaced from natural habitat by man's activities and developments. Destruction of habitat for wildlife by land fragmentation and development increases the conflicts between man and wildlife, are becoming more commonplace.

### **Land Use**

Land is a basic resource. Wise land use planning, whether for agriculture, urban/residential, commercial/industrial, recreation or other uses is critical. Unplanned development creates urban sprawl and fragmentation that is not conducive to the best use of the land resource. The loss of agricultural land to urban use is a concern of many County residents, groups, townships, County agencies and the District. While development is not bad in and of itself, planning of that development for the optimum use of the land resource is more important.

Individual townships and municipalities are responsible for planning and establishing zoning within their jurisdiction, which is not consistent throughout the county. Development in the townships has reduced prime farmland on some of the counties more fertile soils obligating farmers to raise crops on highly erodible lands or soils that are not conducive to agricultural production.

### **Wetlands**

Wetlands are important for wildlife habitat, storage of storm water, cleansing of water, and groundwater recharge. The destruction and filling of wetlands for development, sedimentation of wetlands for agricultural and urban land uses, and invasion of invasive land species seriously impact the ability of wetlands to provide the benefits noted.

### **Forest and Trees**

The rural forest and woodlands of Lenawee County contain quality hardwood species. Early logging by high grading, where most, if not all the best quality trees were removed have left many timber stands in poor condition, with lower-quality and lower-valued trees. Limited forest management efforts on private lands, and public properties as a result of tight budgets, have not allowed for adequate management of the forest resources on private lands, as well as in local municipalities.

## **Priority Concerns**

The priority concerns identified for each major natural resource/environmental issue include:

### **Major Resource Issue #1: Water Quality**

1. Groundwater supply management & protection
2. Agricultural fertilizer/pesticide use/management
3. Failed septic systems
3. Agricultural cropland drainage concerns

### **Major Resource Issue #2: Wildlife & Habitat**

1. Destruction of wildlife habitat
2. Restoration & improvement of habitat
3. Invasive plant species control

### **Major Resource Issue #3: Land Use**

1. Loss of farmland from urban sprawl
2. Natural areas and open space preservation
3. Adequate planning/zoning for growth

### **Major Resource Issue #4: Wetlands**

1. Restoration & management of existing wetlands
2. Preservation of connected natural systems
3. Loss of wetlands by construction or filling

### **Major Resource Issue #5: Forest & Trees**

1. Invasive plant species control
2. Tree diseases, insects or species decline
3. Woodlots needing management

### **Other Issues or Concerns Identified**

Listed below are other issues and concerns identified by survey respondents. These will be considered by the Conservation District in updating its strategic plan and annual plans of work. They have been listed according to major resource issues and are listed in no particular order. The views expressed are not necessarily shared by the District.

#### Comments:

- Lead pipes in the water system. I have been told that the EPA water reports are FAKE.
- Erosion
- Lead in drinking water
- Soil erosion and sedimentation
- Loss of wetlands
- Forest diseases and insects

**Other Survey Responses**

Survey respondents were also asked to rate how their natural resources/environmental issues were being addressed by local conservation/environmental groups, and county and State government agencies. The results are listed below.

*How well do you think your top three general issues are currently being addressed by the following groups?*

<b>GROUP</b>	<b>Very Well</b>	<b>Adequately</b>	<b>Poorly</b>	<b>No opinion</b>
<b>Local conservation or environmental groups?</b> <i>(Ex.: watershed councils, land conservancies, wildlife groups, etc.)</i>	22.22% (8)	55.56% (20)	8.33% (3)	13.89% (5)
<b>County level government agencies?</b> <i>(Ex.: Environmental Health, Parks &amp; Rec., Water Resources, etc.)</i>	0.00% (0)	61.11% (22)	27.78% (10)	11.11% (4)
<b>State level government agencies?</b> <i>(Ex.: Dept. of Nat. Res., Dept. Env. Quality, Dept. of Ag &amp; Rural Dev., etc.)</i>	0.00% (0)	45.71% (16)	45.71% (16)	8.57% (3)

Note: Numbers below percentages are the number of responses received for each rating category.

**What the Conservation District Can Do**

Survey respondents were also asked several questions about the Conservation District and what it can do to address the natural resources/environmental issues they identified, over the next 5 years. An option to provide other responses was also provided. Results are listed below.

*How familiar are you with the Lenawee Conservation District and its programs and services?*

<b>Answer Choices</b>	<b>Responses</b>
Very familiar	25.71% (9)
Somewhat familiar	62.86% (22)
Not familiar at all	11.43% (4)

Note: Numbers below percentages are the number of responses received for each rating category.

*What actions do you think the Lenawee Conservation District could take over the next 5 years with respect to the natural resource and environmental issues you identified in this survey? (Please select your top 1.)*

<b>Answer Choices</b>	<b>Responses</b>
Create new, or expand existing partnerships with local conservation groups to work on resource issues identified.	19.44% (7)
Offer educational meetings and workshops to help landowners with the resource issues identified.	27.78% (10)
Expand/update the District website to include information on the resource issues identified.	5.56% (2)
Expand existing and/or create new programs to work on resource issues identified.	16.67% (6)
Publicize who we are, what we do and what we offer.	8.33% (3)
Develop programs to enlist and involve volunteers in working on resource issues identified.	2.78% (1)
Investigate ways to assist businesses in serving their customers with the resource issues identified.	0.00% (0)
Look for ways to assist townships and other municipalities in addressing identified resource issues in their communities.	16.67% (6)

Note: Numbers below percentages are the number of responses received for each rating category.

Comments:

- Replacing LEAD WATER pipes throughout the county and in ALL Buildings.

***Are there other natural resource or environmental issues that were not identified in this survey that you think will be of concern in Lenawee County over the next 5 years?***

***Please specify:***

<b>Answer Choices</b>	<b>Responses</b>
Yes	30.00% (9)
No	70.00% (21)

Note: Numbers below percentages are the number of responses received for each rating category.

Comments:

- Possible issues with the oil industry. (Leaks, spills, air pollution.)
- Lead in drinking water supply systems.
- Farmers tearing out fence rows. Where do the birds nest etc.
- The state has a law requiring Television manufacturers who sell in Michigan to accept for return old televisions at no charge. The state does not enforce this law. This law covers most electronic devices but since it is not enforced, they end up along the road or other unwanted locations.
- Oil and gas drilling
- Decrease in grassland habitat acres
- Public education about the issues.
- Stop farmers from stripping back field lines. There is no wildlife habitat left for the birds and deer
- Amish practices

***Do you have any additional comments you would like to share with us?***

Comments:

- Continue to educate the children so they grow up realizing the possible problems so they can alter their way of thinking as they grow up. By showing the consequences of run off and helping them learn new ways to landscape might help.

**Demographic Questions**

Finally, survey respondents were asked the following demographic or categorical questions:

***Describe the setting in which you live?***

<b>Answer Choices</b>	<b>Responses</b>
Urban (city or village)	27.78 % (10)
Suburban	5.56% (2)
Rural/Farm	66.67% (24)

Note: Numbers below percentages are the number of responses received for each rating category.

*Please check the one category which best applies to you:*

<b>Answer Choices</b>	<b>Responses</b>
Farmer	16.67% (6)
Homeowner/Property Owner	75.00% (24)
Rental Resident	5.56% (2)
Other, specify	2.78% (1)

Note: Numbers below percentages are the number of responses received for each rating category.

### **Summary**

The major natural resources/environmental issues, **Water Quality, Wildlife & Habitat, Land Use, Wetlands, and Forest & Trees**, and the associated key concerns will be the basis for updating the Conservation District's strategic plan. The plan will identify each issue and concern, specific actions the District has the ability, expertise, and resources available to take or consider implementing.

For the next five years, the District's annual plan of work will incorporate these action items. The desired results will be the focus of the District's efforts, so that positive actions and improvements can be taken toward addressing the resource issues and concerns for the welfare and benefit of the residents of Lenawee County.

Additional information garnered from the resource assessment survey will also be helpful in development of the District's strategic and annual plans. The results of questions asked as to what the District can do and the many comments on other issues and concerns provided will be valuable in honing in on what actions the District should continue, expand, or start in order to address the identified resource issues.

### **APPENDIX**

2016 Resource Assessment Survey

#### **Reference:**

Lenawee County Soil Survey

Southeast Michigan River Basin Study

History of Lenawee County Michigan [www.lenaweehistory.com](http://www.lenaweehistory.com)