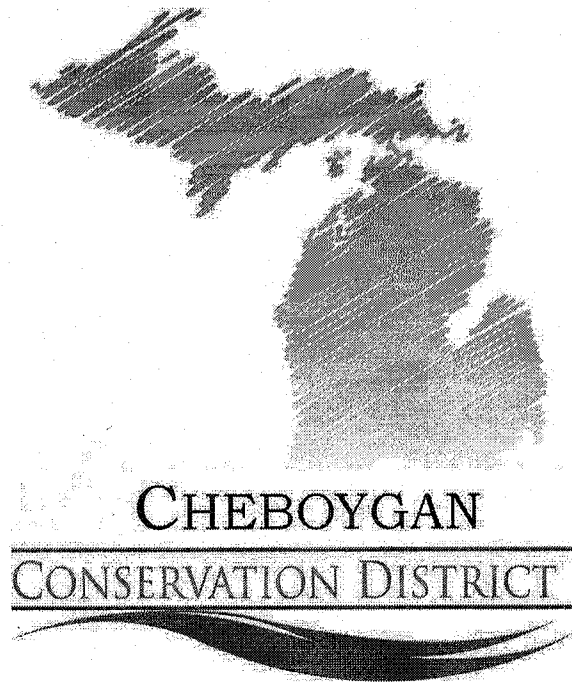


# CONSERVATION NEEDS ASSESSMENT

## CHEBOYGAN CONSERVATION DISTRICT



**2021 - 2026**

**MISSION STATEMENT:** The Cheboygan Conservation District is dedicated in assisting the citizens of Cheboygan County by promoting wise use of our natural resources through education, technical assistance and community service

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## **District Overview**

The Cheboygan Conservation District, whose boundaries are those of Cheboygan County, is a local unit of state government organized by the people within the District boundaries under provisions of The Soil Conservation District Law, Act 297 of Public Act 1937, as amended. In 1994, the Conservation District Law was made part of The Compiled Environmental Code. It is now Part 93 of 451 of 1994, as amended.

The Cheboygan Conservation District was organized in 1948 through the process of petition, hearing and referendum under the leadership of local landowners who realized the importance of our soil and water resources. As such, the District is a locally controlled resource management agency, created by concerned landowners and administered by a publicly elected, five-member board of directors. The board makes all decisions regarding the District's programs and activities.

The mission of the District is to assist the citizens of Cheboygan County by promoting wise use of our natural resources through education, technical assistance and community service.

## **District Personnel**

### **Board of Directors**

Carl Reimann, Chairperson  
Leroy L. Ormsbee, Secretary-Treasurer,  
Steven Fitzner, Member  
John Studer, Member  
William Neelis, Member

### **District Staff**

Peggy Bannatyne, District Manager  
Brittany VanderWall, District Forester -  
Home Office Presque Isle District  
Chris Anderson, MAEAP Water  
Stewardship Technician – Home  
Office Charlevoix District

**USDA Natural Resources Conservation Service**  
Boyd Byelich, District Conservationist (Onaway, Michigan)

## Geography

Cheboygan County is at the northern end of Michigan's Lower Peninsula, south of the Straits of Mackinac that connects Lakes Michigan and Huron, and is traversed by I-75 and US-23. It is bordered by Charlevoix and Emmet Counties on the west, Presque Isle on the east, and Montmorency and Otsego Counties on the south. The county has a total land area of 796.2 square miles or 509,588 acres and is in the heart of tourist country. Thus, much of the economy depends on the service industry and retail trade. Several state parks and the Straits of Mackinac shoreline offer abundance of outdoor recreation activities as well. Once a logging area, Cheboygan County also offers vast water resources. The 40-mile inland waterway connects rivers to lakes between Cheboygan, Indian River and Alanson.

## County Resources

### EXISTING LAND USE

The Michigan Resource Information (MIRIS) land cover/use data was compiled by the Michigan Department of Natural Resources in early 1980's using 1978 aerial photographs. In 1998, this computerized land cover/use information was updated using 1987 and 1992 aerial photography and extensive field inspections. This information is the most current land use information available.

### 1998 Land Use – Cheboygan County

<u>Land Use</u>	<u>Acres</u>	<u>% of Total</u>
Residential	14,582	2.9%
Commercial	1,031	0.2%
Industrial	3,868	0.8%
Institution/Recreation	2,088	0.4%
** Agricultural (see new figures below)	32,152	6.3%
Non-Forest	54,468	10.7%
Upland Forest	237,074	46.5%
Lowland Forest	87,999	17.3%
Wetlands	26,312	5.2%
Beaches	77	0.02%
Surface Water	49,937	9.8%
Total	509,588	100%

**Source:** 1998 update of 1978 MIRIS Land Cover/Use Inventory by Wade-Trim.

**Note:** Data does not include the City of Cheboygan or the Village of Mackinaw City.

**\*\* Agricultural Lands** – According to the **2017 Census of Agriculture** there were 44,024 acres of land in agriculture. Total number for farms were 330 with the average size farm being 133 acres.

### POPULATION

The population of Cheboygan County as reported by the U.S. Census Bureau:

<u>Year</u>	<u>Population</u>
1980	20,649
2000	26,448
2010	26,152

## TOPOGRAPHY

Cheboygan County has five distinct kinds of surface features. These features are moraines, till plains, outwash plains, lake plains and deltas, all of which formed as a result of the complex action of glaciers and postglacial lakes. The highest elevation in the county is about 1,300 feet above mean sea level and is located in Wilmot Township. The lowest elevation is at 577 feet above mean sea level is at the shoreline of Lake Huron which forms the northern boundary of Cheboygan County.

## SOILS

Most of Cheboygan County consists of gently rolling to steep moraines and bedrock, steep and very steep pitted outwash plains, channeled uplands, ancient shorelines, nearly level lake terraces and deltas. There are 10 soil associations in Cheboygan County. They are: 1.) *Roscommon-Charity-AuGres Association*; 2.) *Tawas-Lupton Association*; 3.) *Rudyard-Bruce-Ontonagon Association*; 3.) *Rudyard-Bruce-Ontonagon Association*; 4.) *Detour-Brevort Association*; 5.) *AuGres-Rubicon-Roscommon Association*; 6.) *Rubicon-East Lake Association*; 7.) *Grayling-Rubicon Association*; 8.) *Cheboygan-Blue Lake Association*; 9.) *Rubicon-Blue Lake Association* and 10.) *Fairport-Onaway Association*. \*\*\*Soil information for Cheboygan County is now online at: [www.mi.nrcs.usda.gov](http://www.mi.nrcs.usda.gov)

## WATER RESOURCES

Cheboygan County contains numerous rivers and inland lakes. Inland lakes cover 10% (51,358 acres) of the county's total surface area. Three of the largest lakes in Michigan are in Cheboygan County: Burt Lake (17,335 acres), Mullett Lake (17,260 acres) and Black Lake (eastern part of Cheboygan County, 10,130 acres). There are 51,348 acres of lake surface, 420 miles of streams and 38 miles of Lake Huron shoreline. Of the 182 miles of inland lakeshore, 46 miles are publicly owned.

## CLIMATE

The Cheboygan weather station recorded the average temperature in the summer months at 65 degrees, while the winter average is 19 degrees (date from NOAA; 1960 through 1990). The annual average temperature for Cheboygan County is 52 degrees, although variations occur. Historical data illustrates the highest recorded temperature of 104 degrees (08/06/47) and lowest recorded of 38 degrees below zero (02/06/95).

The Great Lakes and inland lakes of Michigan have a direct effect on the climate of Cheboygan County. The lakeshore region of the county may have a growing season as long as 140 days, whereas the interior portions of the county have a shorter season of around 70 to 80 days. Precipitation is well distributed through the year with the growing season, May to October, receiving an average of 17.3 inches, 61% of the total annual average. The average annual snowfall for Cheboygan is 81.8 inches, but can vary considerably throughout the county.

## **Purpose of Assessment**

Every five years, the District conducts a resource assessment. The purpose of the assessment is to ensure that conservation efforts address important local resource needs. The completed resource assessment will help to develop a plan of work to direct the districts efforts for the next five years.

## **Linking & Scanning of Stakeholders**

The process of identifying and contacting stakeholders about natural resource/environmental concerns is referred to as "linking and scanning". Contacts or "links" are made with the stakeholders and they are surveyed or "scanned" for resource issues and concerns.

The district distributed a survey by mail, email and on the district website asking survey respondents to rank their top three resource issues, and rank their top three concerns for each of their top three issues. Respondents also had the opportunity to add other issues and concerns not listed. See Appendix A for a copy of the survey.

### **Results of Linking & Scanning**

After tabulation of all responding surveys, the prioritized major resource issues identified were: **Land Use, Water Quality, and Wildlife & Habitat.**

#### **Land Use**

Cheboygan County's rural character and recreational opportunities are what draws people to the area. Wise land use planning is critical. The loss of agricultural land and natural areas & open space preservation are a concern to many county residents and agencies. Planning should focus on an approach that would provide economic growth, along with maintaining the rural character and protection of the county's natural resources.

#### **Water Quality**

Lakes and streams in Cheboygan County provide countless recreational opportunities for local residents and tourist alike. The county's local economy is strongly dependent on our water resources. Most lakes in Cheboygan County have good water quality, but increase in development and land use changes often increase point and non-point source pollution. Some sources of contamination are septic systems, fertilizer, pesticide use, soil erosion, sedimentation, road/stream crossings, automotive, and household hazardous waste. Some watershed management plans, studies, and restoration sites have been completed by Tip of the Mitt Watershed, Huron Pines, Northeast Michigan Council of Governments, and other partners, etc.... **Please see page 6 for a list of them.**

#### **Wildlife & Habitat Issues**

Cheboygan County has a large population of diverse wildlife species. Abundant inland waters and forests provide extensive fish and wildlife habitats. Development in habitat areas and lack of limited management techniques threaten wildlife and their habitats. The kind and abundance of wildlife depend largely on the distribution of food, cover and water. Habitat can be created or improved by planting woodland openings to grasses, small grains and food producing shrubs.

## **List of Management Plans & Studies of Cheboygan County Lakes**

- Black Lake Watershed Stewardship Initiative Non-point Source Pollution Management Plan. (2002). Available at: [www.watershedcouncil.org](http://www.watershedcouncil.org)
  - Black Lake Aquatic Survey (2005). Available at: [www.watershedcouncil.org](http://www.watershedcouncil.org)
  - Black Lake Association Shoreline Survey (2005). Available at: [www.watershedcouncil.org](http://www.watershedcouncil.org)
  - Black Lake 2009 Report. Available at: [www.watershedcouncil.org](http://www.watershedcouncil.org)
  - Burt Lake Watershed Non-point Source Pollution Management Plan (2001). Available at: [www.watershedcouncil.org](http://www.watershedcouncil.org)
  - Burt Lake Shoreline Survey (2009). Available at: [www.watershedcouncil.org](http://www.watershedcouncil.org)
  - Burt Lake Profile Report (2008). Available at: [www.watershedcouncil.org](http://www.watershedcouncil.org)
  - Cheboygan River/Lower Black River Watershed Initiative (2003)  
Available at: [www.nemcog.org](http://www.nemcog.org)
  - Mullet Lake Non-point Source Management Plan (2002). Available at: [www.watershedcouncil.org](http://www.watershedcouncil.org)
- \*\*\* There may be plans or studies on other lakes in the County. Tip of the Mitt Watershed Councils website may have more information. [www.watershedcouncil.org](http://www.watershedcouncil.org)

## **Cheboygan Conservation District Resource Needs Assessment Survey Results**

### **Major Resource Issues & Priority Concerns Identified Include:**

#### **Land Use**

- #1) Overuse/poor use of recreation areas
- #2) Preservation of natural areas
- #3) Local food production/small farm opportunities

#### **Water Quality**

- #1) Groundwater contamination
- #2) Residential fertilizer/pesticide use
- #3) Agriculture fertilizer/pesticide use
- #3) Invasive plants & animals

#### **Wildlife & Habitat Issues**

- #1) Climate change
- #2) Destruction of wildlife habitat
- #3) Invasive plants & animals
- #3) Loss of native pollinators

### **What conservation practices or activities do you currently practice on your land or in your home?**

- Planting 200 plus trees annually. Plant vegetable garden. Provide wildlife/bird habitat.
- Cutting dead & down trees...replanting new trees for habitat. Brush for habitat, wood for heating.
- Minimize water use & cultivate trees.
- We practice composting and are trying different methods to manage spotted knapweed. Once we acquire property, we'd like to continue knapweed management and work on grassland restoration and build wildlife habitat corridors.
- Recycling & planting of trees & plants.
- Natural habitat restoration, windbreak, tree planting & wildlife preservation.
- Tree planting. Try to avoid using pesticide and other chemical use as much as possible. Tree harvesting for habitat of large and small animals and birds.
- Planting trees and shrubs, Beekeeping and organic gardening.
- No use of herbicides or pesticides. Keep greenbelts on creek & riverbank. Try to eliminate invasive species.
- Soil erosion control on roads & trails. Try to contain Autumn Olive infestation in Riggsville area.



**Which of the following programs and services provided by the District are you aware of?**

- Tree Sale (11)
- Hunting Access Program (5)
- District Website (6)
- Forestry/wildlife site visits (2)
- Farm Bill assistance (2)
- MAEAP services (1)

**What services have you participated in?**

- Tree sale
- All
- Hunting Access Program
- District information

**Which of the services and programs do you feel the district should focus on in the next five years?**

- I wish I knew more about them. Tree sale is great, help in managing my forest. Hunting Program.
- Don't know most of them.
- Beach & boating access.
- I don't know anything about the programs other than the tree sale. Maybe you should focus on public awareness.
- Tree sale, hunting access issues, & Farm Bill.
- Clean water, control reforestation, control habitat for wildlife and beach erosion.
- All of them.
- If I had to choose, I'd select Farm Bill program, specifically targeting small & local farms.
- Forestry/wildlife site visits for residents in the City & Hunting Access Program.
- Managing forestation/cutting down trees better. Piles of lumber stacked for over two years in Black Mountain, as an example.

**What additional programs, services, or activities should the district add to help you, your land, and community?**

- Educational programs on invasive species, farming, land management & water care.
- Develop program to assist our adaption to changing climate.
- Outreach & teaching programs. I think people really benefit from learning why conservation practices are important, and how certain programs apply to conservation.
- As a beekeeper, I see many people interested in bees and wanting to make the environment more bee friendly, but then they turn around and kill all the wildflowers in their lawn! Perhaps getting people more information about bees and alternatives to spraying yards, changing the image of a perfect yard has to be weed free, could be taken on by the District. As a retired teacher, I go into the schools and give bee presentations to kids, kids don't have much control over what their parents do with the front yard but I hope that someday, when they have some property, they will remember the importance. The Farmer's Market is a place where many people that are somewhat concerned in the environment and the natural resources go. Perhaps a table could be set up there with brochures; pamphlets informing people about issues concerning our environment and information hon what the District does.

**Please provide any additional comments or resource concerns not addressed in this survey.**

- I am interested in creating a pond. Are there any programs which could help?
- None.
- Please expand Hunting Access Program in Cheboygan County.
- For soil erosion & sedimentation – certain companies should not be allowed to do construction on our lakes or river banks. People should be monitored closer regarding sedimentation.

**Would you be interested in serving on the Cheboygan Conservation District Board?**

- Received no responses.

***Demographic Questions***

The following are the results of demographic questions asked in the resource assessment survey.

What is your five digit zip code?

49721	9	49799	2
49705	1	49755	1

How long have you lived in Cheboygan County?

1-5 Years	2
6-10 Years	1
10 Plus Years	10

How much property do you own?

1-10 Acres	4
11-40 Acres	5
41-100 Acres	2
Over 100 Acres	1

How would you describe the setting in which you live?

Urban (city or village)	0
Rural Residential	7
Farm	5
Timber-Forested	4
Waterfront Property	3
Vacant-Investment	1
Other – (renter)	1

What category best applies to you?

Builder/Developer	0
Conservation/environmental Organization	1
Farmer	0
Homeowner	11
Resource Professional	1
Government Official	0
Business Owner	1
Other	1

In your daily life, how would you describe your involvement with natural resources?

Very involved	8
Somewhat involved	5
Not Very involved	0

How would you describe your feelings about natural resource issues?

Very concerned	11
Somewhat concerned	2
Not Very involved	0

What sources do you use to keep informed about news and information concerning natural resources in Cheboygan County? (You may select multiple options)

Television	6
Local Newspaper	5
Farm Organization	0
Internet/Social Media	8
Radio	3
Word of Mouth	9
Sportsman Organizations	3
Local Meetings	2

## **APPENDIX A**

Listed below are the people and groups contacted through the linking and scanning process.

### **Stakeholders Contacted:**

Cheboygan County Commissioners

City Officials

Village of Wolverine

Cheboygan Chamber of Commerce

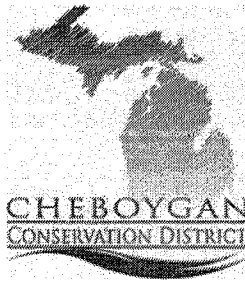
Survey was placed on District Website

Cheboygan County Townships

District Tree Sale Customers

Cheboygan County Farm Bureau

Indian River Chamber of Commerce



**2021 NATURAL RESOURCE ASSESSMENT SURVEY**  
**Cheboygan Conservation District, 870 S. Main, P.O. Box 70, Cheboygan, Michigan 49721**

**To be entered in a drawing for a \$25.00 gas card or \$25.00 worth seedlings from Spring 2022 district seedling sale (your choice), enter name & phone number or e-mail and return by August 2, 2021. Survey can be downloaded at [www.cdcheboygan.org](http://www.cdcheboygan.org) and emailed to: [pegbannatyne@gmail.com](mailto:pegbannatyne@gmail.com)**

(optional to be entered into drawing) Name & Phone or E-mail: \_\_\_\_\_

The Cheboygan Conservation District is currently working on a Natural Resource Assessment. This endeavor takes place every 5 years and seeks public, business; and agency feedback in order to complete the process. Your identity will be kept strictly confidential.

**PLEASE RETURN COMPLETED SURVEY BY AUGUST 2, 2021.**

1. What is your five-digit zip code? \_\_\_\_\_
2. How long have you lived in Cheboygan County? 1-10 Yrs. \_\_\_\_\_ 11+ yrs. – \_\_\_\_\_
3. How much property (approx. acres) do you own in Cheboygan County? 1-10 \_\_\_\_\_ 41-100 \_\_\_\_\_  
Over 100 \_\_\_\_\_
4. How would you describe your home/property?  
 City/Village  Rural Residential  Farm  Timber-Forested  Lake/River Frontage  
 Vacant-Investment  Seasonal-Recreational-Camp  Other
5. Please check the one category, which best applies to you.  
 Homeowner  Business Owner  Government Official  Farmer  Builder-Developer  
 Student  Resource Professional  Other/None of the above
6. In your daily life, how would you describe your involvement with natural resources?  
 Very involved  Somewhat involved  Not very involved
7. How would you describe your feelings about natural resource issues?  
 Very concerned  Somewhat concerned  Not very concerned
8. What sources do you use to keep informed about news and information concerning natural resources in Cheboygan County? (you may select multiple options)  
 Newspaper  Online (websites/social media)  Word of mouth or local postings  Radio  
 Farm Organization  Sportsmen's Organizations  Television  Local meetings  
 Other (please specify): \_\_\_\_\_
9. Please RANK the **top 3 Land Use issues** you think will be of concern over the next five years in Cheboygan County.  
 Loss of farmland  Urban sprawl-development  Spread of invasive species  Forest management  
 Preservation of natural areas  Overuse/poor use of recreation areas  Loss of recreation opportunities  
 Local food production/small farm opportunities  
 Other (please specify): \_\_\_\_\_
10. Please RANK the **top 3 Water Quality Issues** that you think will be of concern over the next five years in Cheboygan County.  
 Soil erosion and sedimentation  Invasive plants and animals  Loss of wetlands  Surface water  
 Groundwater contamination  Residential fertilizer/pesticide use  Groundwater overuse  
 Storm water management  Lake and stream cleanup  Agriculture fertilizer/pesticide use  
 Protection of recreational waters  Agriculture cropland drainage protection  
 Other (please specify): \_\_\_\_\_
11. Please RANK the **top 3 Wildlife and Habitat issues** that you think will be of concern over the next five years.  
 Destruction of wildlife habitat  Habitat restoration and management  Loss of public hunting access  
 Climate change  Wildlife damage to property or crops  Loss of native pollinators  
 Habitat fragmentation  Wetland restoration and management  Invasive plants and animals  
 Other (please specify): \_\_\_\_\_

12. What conservation practices or activities do you currently practice on your land or in your home?

13. Please check all the ways in which you utilize natural resources for work, home, or recreational purposes.

- Hunting    Fishing    ORV/snowmobiling    Wood for heating    Farming  
 Bird/wildlife watching    Orchard    Horse riding    Well for water    Swimming  
 Hiking/biking    Sailing/canoeing/kayaking    Timber production    Gardening  
 Wind/solar energy    Other (please specify):

14. Which of the following programs and services provided by the Conservation District are you aware of?

- Forestry/wildlife site visits    Farm Bill assistance    MAEAP services    District website  
 Spring tree sale    Hunting Access Program    Other

15. Which of the above (#14) services have you participated in?

16. Which of the services and programs mentioned above (#14) do you feel the district should focus on in the next five years?

17. What additional programs, services, or activities should the district add to help you, your land, and community?

18. Please provide any additional comments or resource concerns not addressed in this survey.

19. Would you be interested in serving on the Cheboygan Conservation District Board? If so, please contact the district office at (231)627-8484 for more information.

**THANK YOU FOR YOUR INPUT AND FOR HELPING CONSERVE OUR NATURAL RESOURCES!**

## **REFERENCE LIST**

“1991 Soil Survey of Cheboygan County, Michigan”. United States Department of Agriculture, Natural Resources Conservation Service.

“2006” Cheboygan Conservation District Resource Assessment.

“2017” Census of Agriculture”. United States Department of Agriculture, Michigan Agricultural Statistics Service.

“2010 Census”, United States Census Bureau.

“February 2002 Cheboygan County Comprehensive Plan”. Cheboygan County Planning commission, Northeast Michigan Council of Governments and Wade-Trim, Inc.

“2006” Cheboygan County Hazard Mitigation Plan. Northeast Michigan Council of Governments.

Tip of the Mitt Watershed Council, [www.watershedcouncil.org](http://www.watershedcouncil.org)

Northeast Michigan Council of Governments, [www.nemcog.org](http://www.nemcog.org)