

# Antrim County Hazard Mitigation Plan Update

November 9, 2021



**Networks  
Northwest**

**Talent / Business / Community**

# Welcome

- Thank you for joining us!
- We will be discussing the following:
  - Antrim County and local jurisdictions' Community Profile
  - Results of the Community Survey

# Introductions

- Networks Northwest Staff
  - Jennifer Neal, AICP
  - Stephanie Loria
  - Frank Post
- Community Partners

# Purpose

## Hazard Mitigation Planning

**“The effort to reduce loss of life and property by lessening the impact of disasters”**

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## Billion-Dollar Disasters Shattered U.S. Record in 2020

The 22 events that each caused at least \$1 billion in damage show the increasing costs of climate change

By Thomas Frank, E&E News on January 11, 2021



An aerial view of flood waters from Hurricane Delta surrounding structures destroyed by Hurricane Laura on October 10, 2020 in Creole, Louisiana. Credit: Mario Tama Getty Images

# Project Timeline

- Now through December 2023



## From Fishtown To State Theatre, High Waters Wreak Havoc - With Trend Likely To Continue

By Beth Milligan | Nov. 18, 2019

The impacts of near-record lake levels will continue to be felt this winter, with major repair projects needed at sites ranging from Fishtown to the State Theatre, planning

# Antrim County LEPC/LPT Membership

**Name**

**Organization**

# Community Profile\*

- Demographics
- Housing
- Income
- Economy
- Agriculture

\*2019 ACS 5-year data unless otherwise specified



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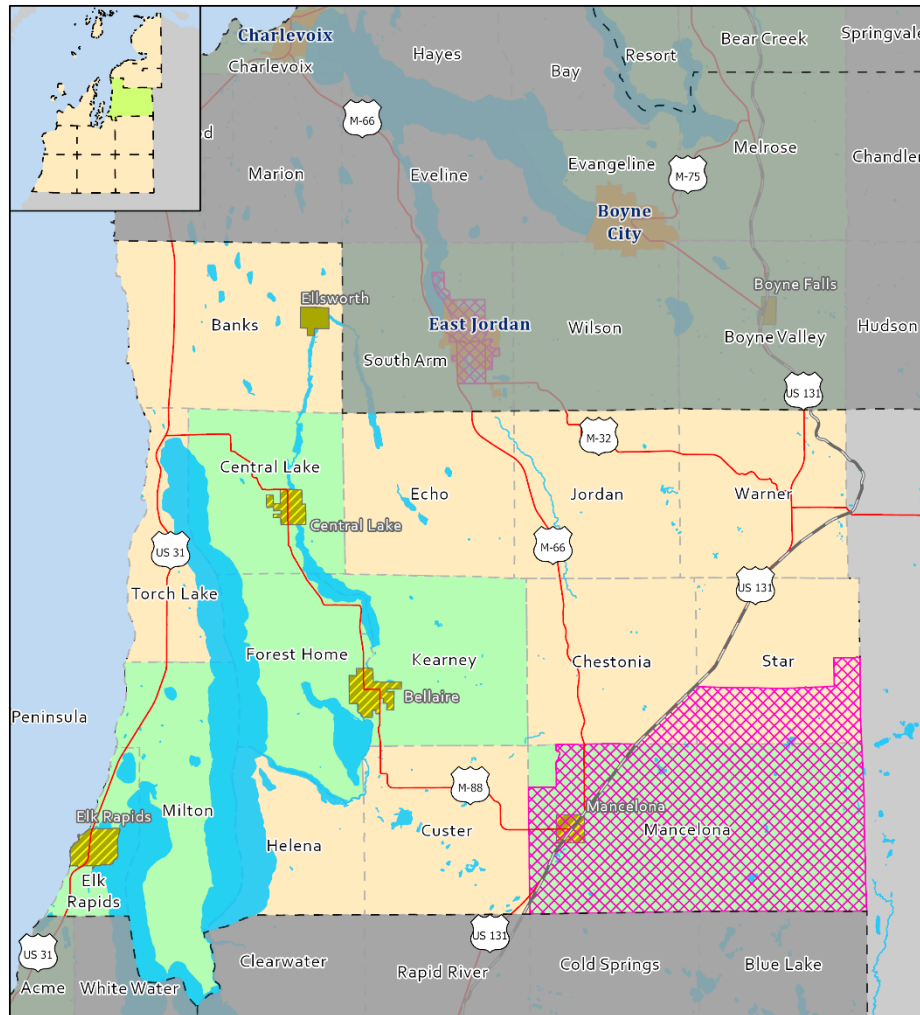
## Great Lakes water levels surge, some record highs predicted

By ASSOCIATED PRESS • MAY 7, 2019

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- [Email](#)



CREDIT ROBERT FRANKLIN / SOUTH BEND TRIBUNE VIA AP



## Antrim County & Local Units of Government

- Legend**
- Highways
  - Railroad
  - Hydrology
  - Great Lakes
  - Qualified Opportunity Zone
  - G&I Areas Villages
  - G&I Areas Cities
  - Surrounding G&I Twps.
  - All Townships
  - Antrim County
  - Other NW MI Counties
  - Counties Outside Region
  - All Villages

N

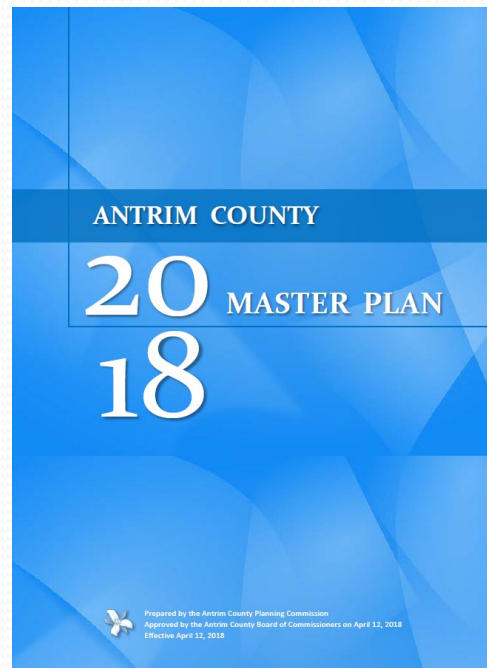
0 1.5 3 6

Map produced by Networks Northwest  
 Community Development 4/29/2021



# Reference Documents

- Antrim County CIP (2022)
- Antrim County Parks and Rec Plan (2022)
- Antrim County Master Plan (2018)
- Other regional reports

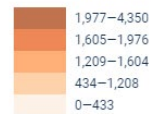


# Demographics

## • Population levels by local jurisdiction

Municipality	2019 Estimated Population	
Antrim County	23,206	%
Mancelona Township	4,350	18.7%
Elk Rapids Township	2,575	11.1%
Milton Township	2,545	11.0%
Central Lake Township	1,976	8.5%
Kearney Township	1,882	8.1%
Banks Township	1,604	6.9%
Forest Home Township	1,594	6.9%
Torch Lake Township	1,208	5.2%
Helena Township	1,024	4.4%
Custer Township	949	4.1%
Jordan Township	929	4.0%
Star Township	929	4.0%
Echo Township	846	3.6%
Chestonia Township	433	1.9%
Warner Township	362	1.6%

Total—Estimate in 2019



*Italicized numbers indicate the number of geography areas in each data class.*

**VIEW TABLE**

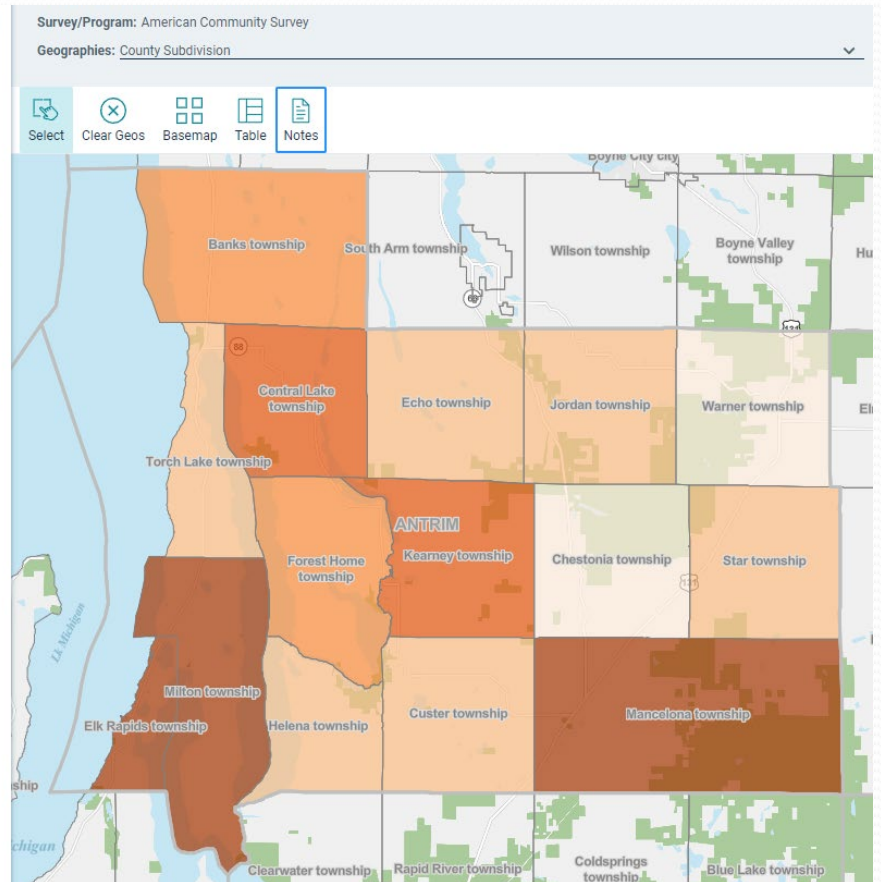
Color Palette

Data Classes: 5

Classification Types: Natural Breaks

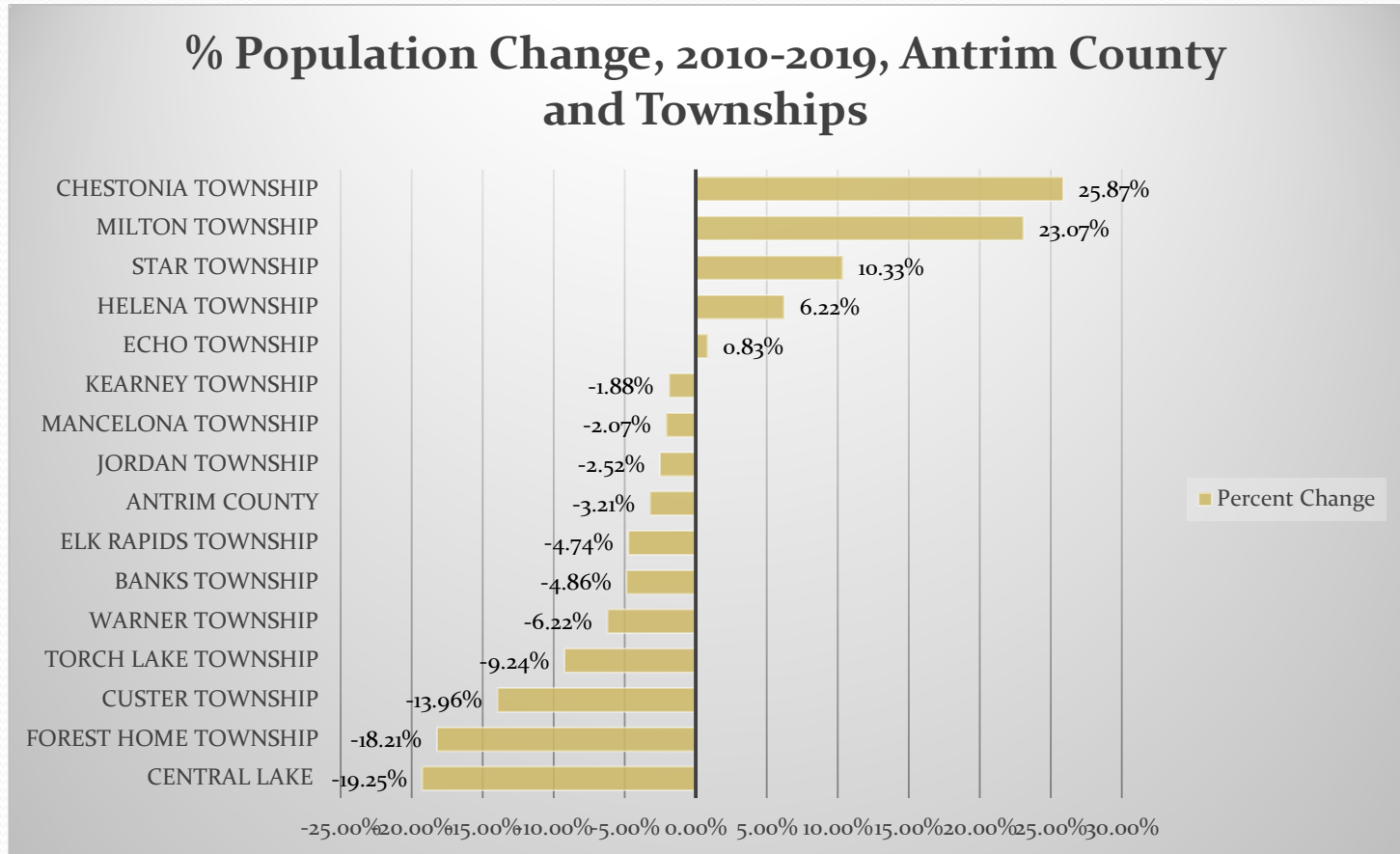
Geos: 16

- 3
- 2
- 2
- 6
- 3



# Demographics

- Population change by local jurisdiction



# Demographics

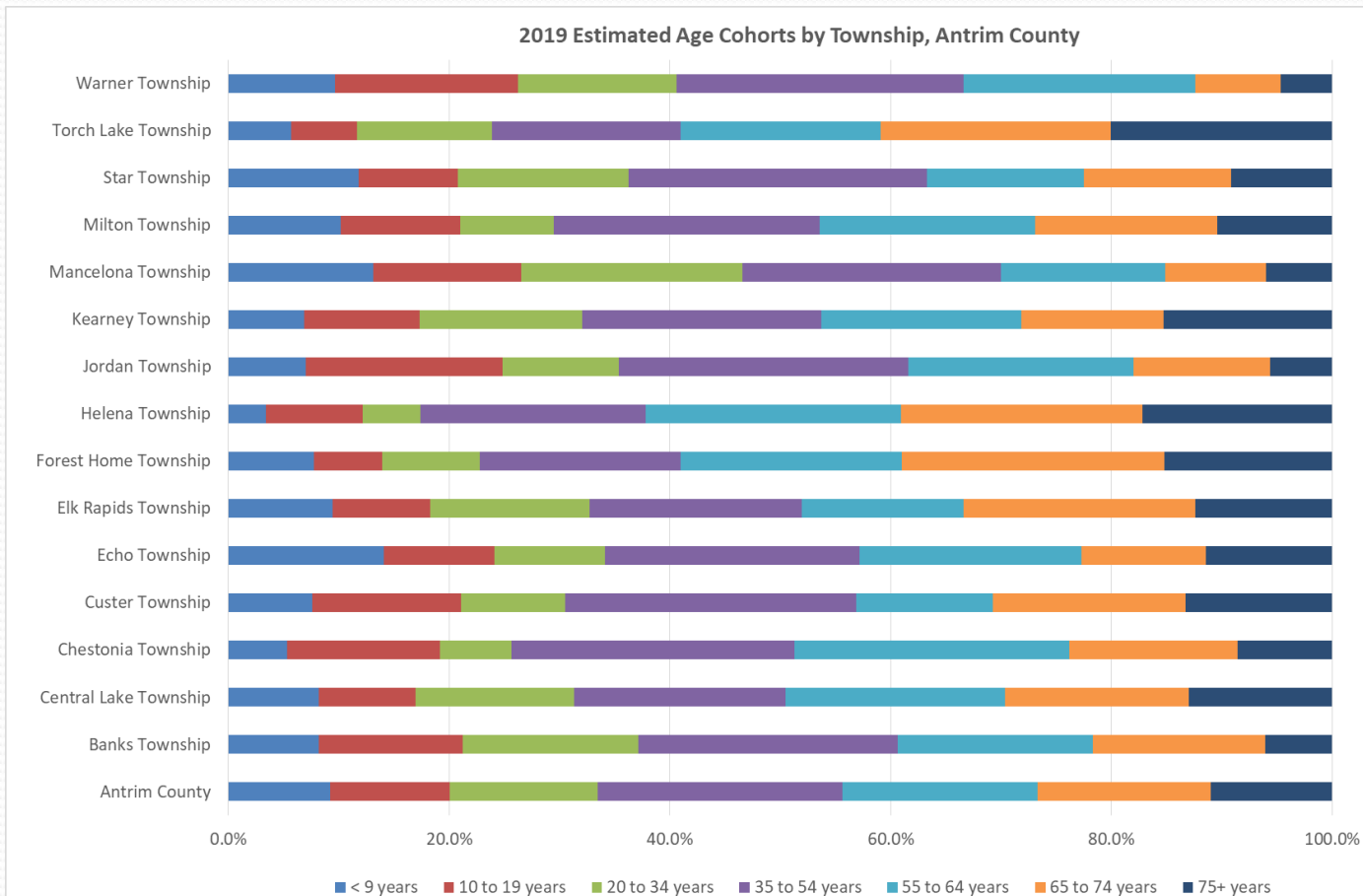
- Population change by local jurisdiction

Antrim County and Municipalities Population Estimates, 2010-2019

Municipality	2010 Estimated Population	2019 Estimated Population	Numeric Change	Percent Change
<b>Antrim County</b>	<b>23,975</b>	<b>23,206</b>	<b>-769</b>	<b>-3.2%</b>
Central Lake Township	2,447	1,976	-471	-19.2%
Forest Home Township	1,949	1,594	-355	-18.2%
Custer Township	1,103	949	-154	-14.0%
Torch Lake Township	1,331	1,208	-123	-9.2%
Warner Township	386	362	-24	-6.2%
Banks Township	1,686	1,604	-82	-4.9%
Elk Rapids Township	2,703	2,575	-128	-4.7%
Jordan Township	953	929	-24	-2.5%
Mancelona Township	4,442	4,350	-92	-2.1%
Kearney Township	1,918	1,882	-36	-1.9%
Echo Township	839	846	7	0.8%
Helena Township	964	1,024	60	6.2%
Star Township	842	929	87	10.3%
Milton Township	2,068	2,545	477	23.1%
Chestonia Township	344	433	89	25.9%

# Demographics

## ● Age groups by local jurisdiction



# Demographics

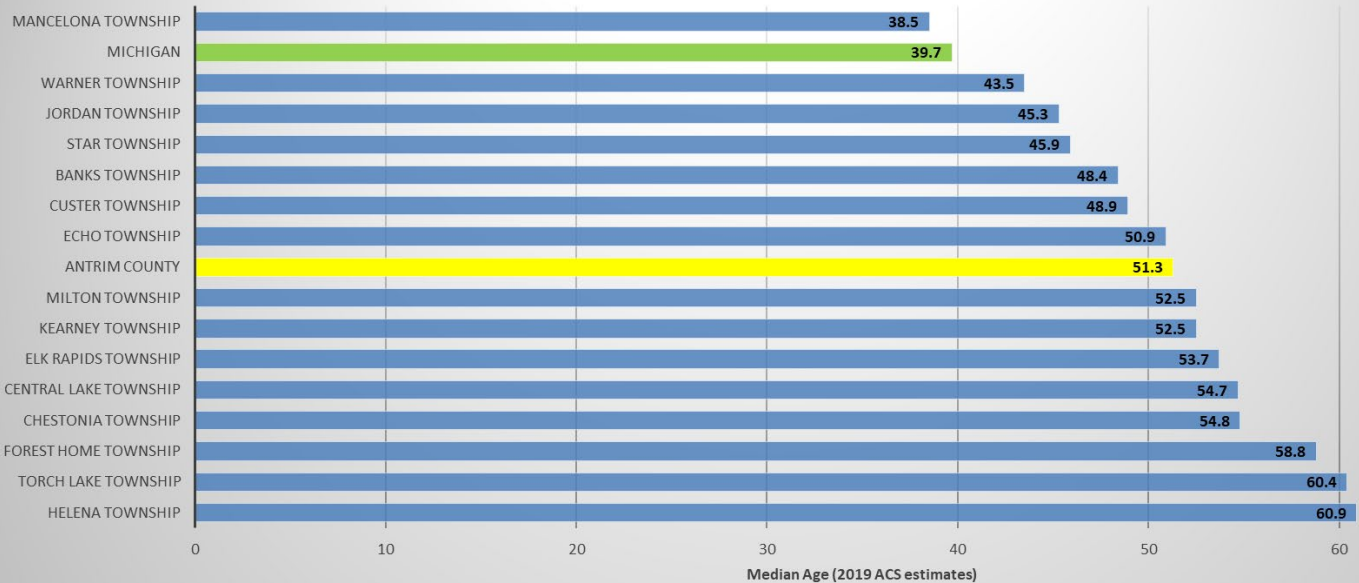
- Age groups by local jurisdiction

Community	< 9 years	10 to 19 years	20 to 34 years	35 to 54 years	55 to 64 years	65 to 74 years	75+ years
<b>Antrim County</b>	<b>9.3%</b>	<b>10.8%</b>	<b>13.4%</b>	<b>22.1%</b>	<b>17.7%</b>	<b>15.6%</b>	<b>11.0%</b>
Banks Township	8.2%	13.0%	15.9%	23.5%	17.6%	15.6%	6.0%
Central Lake Township	8.2%	8.8%	14.3%	19.1%	19.9%	16.6%	13.0%
Chestonia Township	5.3%	13.9%	6.5%	25.6%	24.9%	15.2%	8.5%
Custer Township	7.6%	13.5%	9.5%	26.3%	12.3%	17.5%	13.3%
Echo Township	14.1%	10.0%	10.0%	23.0%	20.1%	11.2%	11.5%
Elk Rapids Township	9.4%	8.9%	14.4%	19.2%	14.7%	20.9%	12.4%
Forest Home Township	7.8%	6.2%	8.8%	18.2%	20.1%	23.8%	15.2%
Helena Township	3.4%	8.8%	5.2%	20.4%	23.1%	21.9%	17.2%
Jordan Township	7.0%	17.9%	10.5%	26.2%	20.5%	12.4%	5.6%
Kearney Township	6.9%	10.5%	14.7%	21.7%	18.1%	12.9%	15.2%
Mancelona Township	13.1%	13.4%	20.0%	23.5%	14.8%	9.1%	6.0%
Milton Township	10.2%	10.9%	8.4%	24.1%	19.6%	16.5%	10.4%
Star Township	11.8%	8.9%	15.5%	27.0%	14.2%	13.3%	9.1%
Torch Lake Township	5.7%	6.0%	12.3%	17.1%	18.1%	20.9%	20.0%
Warner Township	9.7%	16.6%	14.4%	26.0%	21.0%	7.7%	4.7%

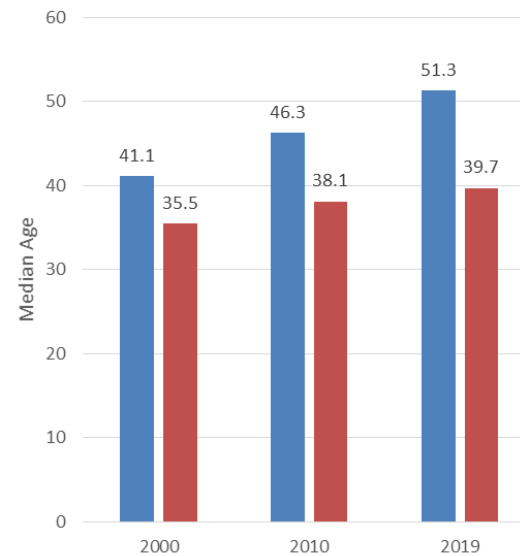
# Demographics

- Median age by local jurisdiction

Median Age by Local Jurisdiction, Antrim County



Median Age Trends



Source: U.S. Census Bureau, 2010 and 2019 5 Yr ACS and 2000 Decennial Census

■ Antrim County ■ Michigan

# Demographics

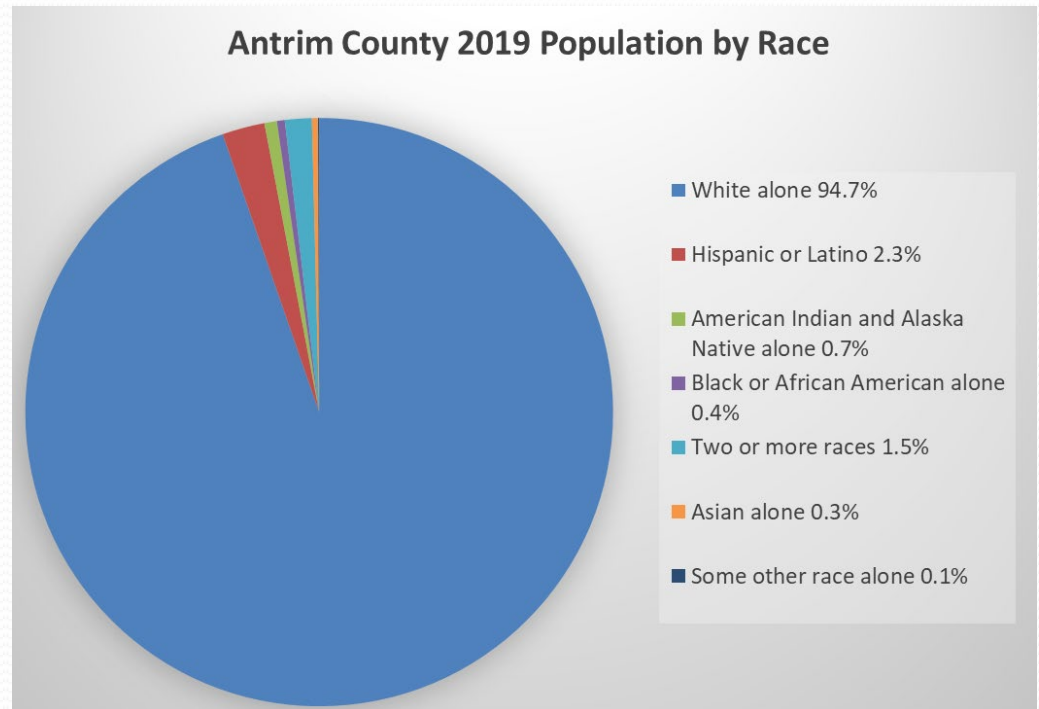
- Disability Status In Antrim County

ANTRIM COUNTY	Population	Percentage
2019 Estimate of Total Civilian Noninstitutionalized Population	23,031	
Estimated number of people with one or more type of disability	3,733	16.2
With an ambulatory difficulty	1,756	8
With an independent living difficulty	1,202	6.4
With a hearing difficulty	1,459	6.3
With a cognitive difficulty	1,347	6.1
With a self-care difficulty	610	2.8
With a vision difficulty	502	2.2



# Demographics

- Population by Race and Limited English-Speaking Households

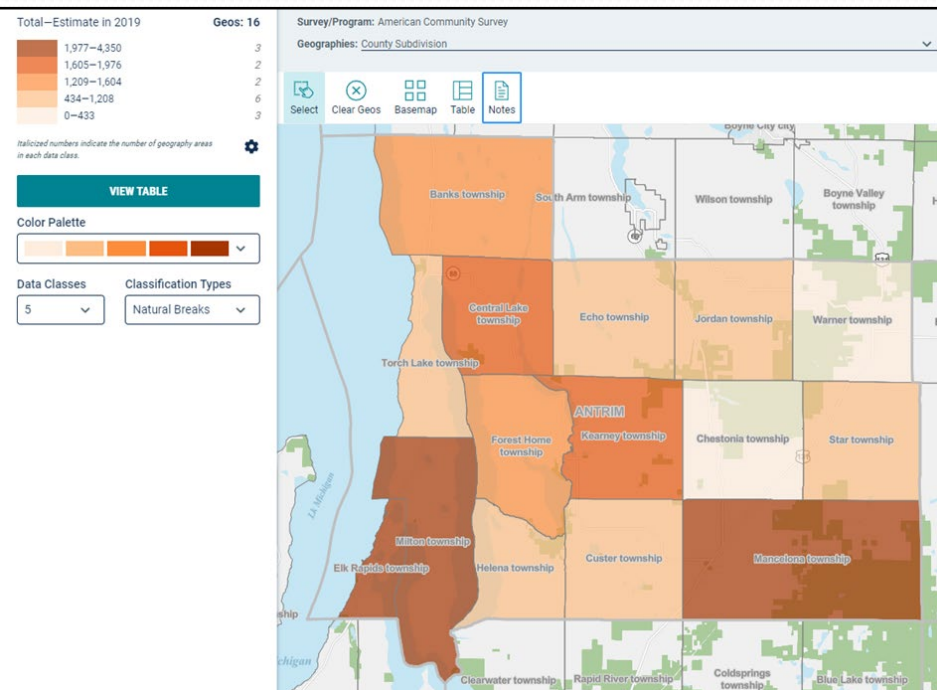


	Banks Township			Elk Rapids Township			Jordan Township		
	Total	Limited English-speaking households	Percent limited English-speaking households	Total	Limited English-speaking households	Percent limited English-speaking households	Total	Limited English-speaking households	Percent limited English-speaking households
All households	679	3	0.4%	1,142	8	0.7%	367	5	1.4%
Households speaking --									
Spanish	8	3	37.5%	8	0	0.0%	0	0	-
Other Indo-European languages	6	0	0.0%	20	8	40.0%	5	0	0.0%

# Housing

- Units by local jurisdiction

2019 Population Estimates Map



Municipality	2010 Housing Units (ACS)	2019 Housing Units (ACS)	Percent Change	Percent of 2019 Total
<b>Antrim County</b>	<b>17,546</b>	<b>18,069</b>	<b>2.9%</b>	
Mancelona Township	2,529	2,564	1.4%	14.2%
Milton Township	1,887	1,934	2.4%	10.7%
Elk Rapids Township	1,910	1,918	0.4%	10.6%
<b>Central Lake Township</b>	<b>1,811</b>	<b>1,637</b>	<b>-10.6%</b>	9.1%
<b>Forest Home Township</b>	<b>1,547</b>	<b>1,536</b>	<b>-0.7%</b>	8.5%
Kearney Township	1,067	1,409	24.3%	7.8%
Torch Lake Township	1,205	1,399	13.9%	7.7%
Custer Township	1,117	1,161	3.8%	6.4%
<b>Banks Township</b>	<b>1,187</b>	<b>1,002</b>	<b>-18.5%</b>	5.5%
Helena Township	947	962	1.6%	5.3%
Star Township	673	848	20.6%	4.7%
Echo Township	599	601	0.3%	3.3%
Jordan Township	536	552	2.9%	3.1%
Chestonia Township	323	349	7.4%	1.9%
<b>Warner Township</b>	<b>208</b>	<b>197</b>	<b>-5.6%</b>	1.1%

# Housing

- County Occupancy Status

<b>Antrim County Housing Unit Occupancy</b>		
Total housing units	18,069	%
<b>Occupied housing units</b>	<b>9,899</b>	<b>54.80%</b>
Owner-occupied	8,621	87.10%
Renter-occupied	1,278	12.90%
<b>Vacant housing units</b>	<b>8,170</b>	<b>45.20%</b>

# Housing

- Units by Year Structure Built

Year Housing Structure Built, Antrim County		
Year Built	Housing Units	Percentage of Units
Built 2000 or later	2,398	13.3%
Built 1990 to 1999	3,031	16.8%
Built 1980 to 1989	2,702	15.0%
Built 1960 to 1979	5,526	30.6%
Built 1940 to 1959	2,332	12.9%
Built 1939 or earlier	2,080	11.5%
Total Housing Units	18,069	

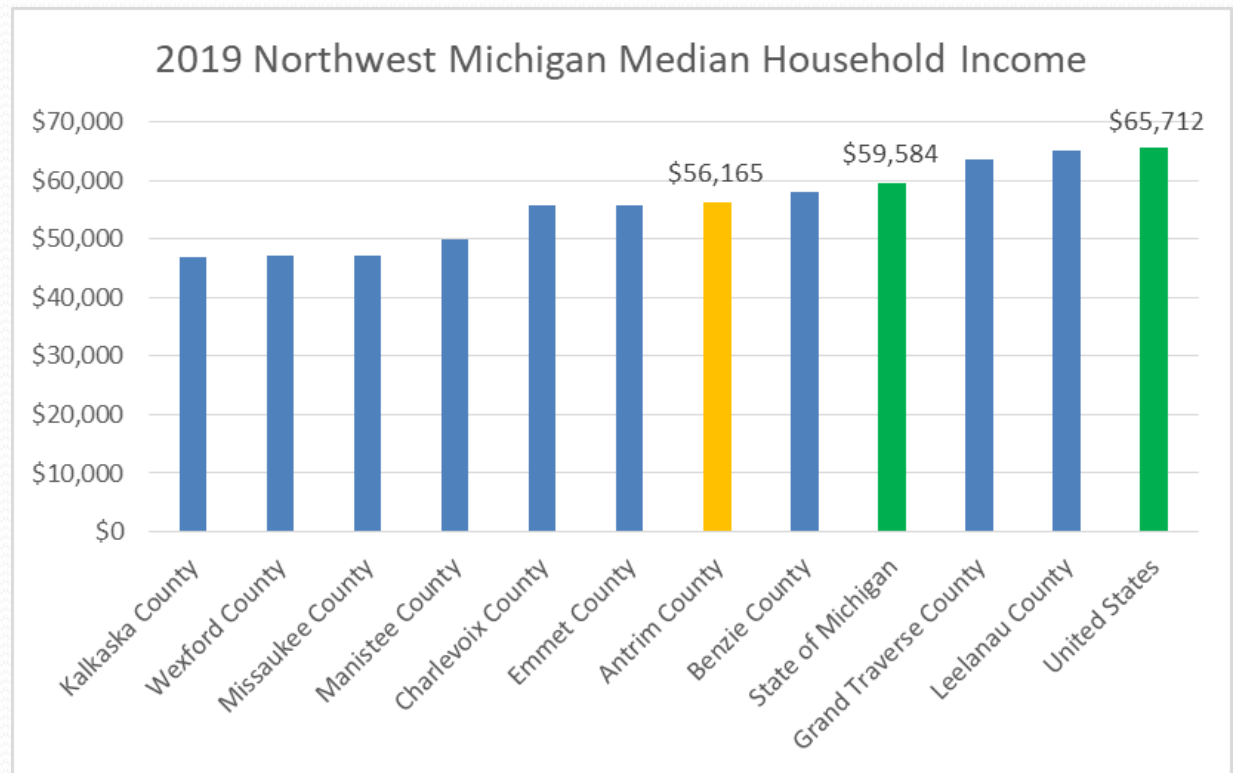
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55% of the housing is 40 or more years old

# Income

- Median Household Income by County

2019 Median Household Income	
Location	Median Income
Kalkaska County	\$46,898
Wexford County	\$47,193
Missaukee County	\$47,194
Manistee County	\$50,055
Charlevoix County	\$55,760
Emmet County	\$55,829
Antrim County	\$56,165
Benzie County	\$57,974
State of Michigan	\$59,584
Grand Traverse County	\$63,575
Leelanau County	\$65,249
United States	\$65,712



# Income

- Poverty Rates – Individuals and Families

Antrim County	Total	Below poverty level	Percent below poverty level
<b>Population for whom poverty status is determined</b>	<b>22,935</b>	<b>2,527</b>	<b>11.0%</b>
Individuals under 18 years	4,146	695	16.8%
Individuals 18 to 64 years	12,717	1,412	11.1%
Individuals 65 years and over	6,072	420	6.9%
Total families in Antrim County with child(ren) under age 18 in the home	4,122	671	16.3%
In married-couple family:		161	23.99%
In other family:		510	76.01%
Male householder, no spouse present:		39	
Female householder, no spouse present:		471	

# Income

- ALICE: Asset Limited, Income Constrained, Employed = households with income above the Federal Poverty Level but below the basic cost of living.

ALICE and Poverty Households in Antrim County

Township	Total HH in Poverty and ALICE	% of HH in Poverty and ALICE	Poverty Households	ALICE Households	Total Households
Mancelona	756	46.2%	305	451	1,637
Central Lake	355	38.9%	102	253	913
Elk Rapids	335	29.3%	173	162	1,142
Kearney	301	39.9%	98	203	754
Milton	259	24.3%	94	165	1,068
Forest Home	217	28.4%	76	141	765
Banks	190	28.0%	43	147	679
Torch Lake	175	30.0%	51	124	584
Echo	142	40.7%	30	112	349
Star	125	31.5%	38	87	397
Custer	123	30.3%	22	101	406
Jordan	122	33.2%	36	86	367
Chestonia	119	59.2%	16	103	201
Helena	117	23.7%	11	106	493
Warner	49	34.0%	10	39	144
<b>ANTRIM COUNTY</b>	<b>3,385</b>	<b>25.5%</b>	<b>1,105</b>	<b>2,280</b>	<b>9,899</b>

**“ ALICE households are more likely to live in housing units and communities that are more vulnerable to flooding, fire, and other hazards, primarily because those areas are more affordable. ”**

<https://www.unitedforalice.org/state-overview/michigan>

Data Source: ACS 5-Yr Estimates, 2019

# Agriculture



**“WE ARE IN A WAR ZONE AGAINST THIS DISEASE.”**

CLIMATE CHANGE IS FUELING FIRE BLIGHT, AND NORTHERN MICHIGAN'S APPLE ORCHARDS ARE AT RISK.

BY TODD VANSICKLE | OCT. 5, 2019

What is this contagion? What does it mean for the future of our fruit and orchards? And what — if anything — can we do about it?

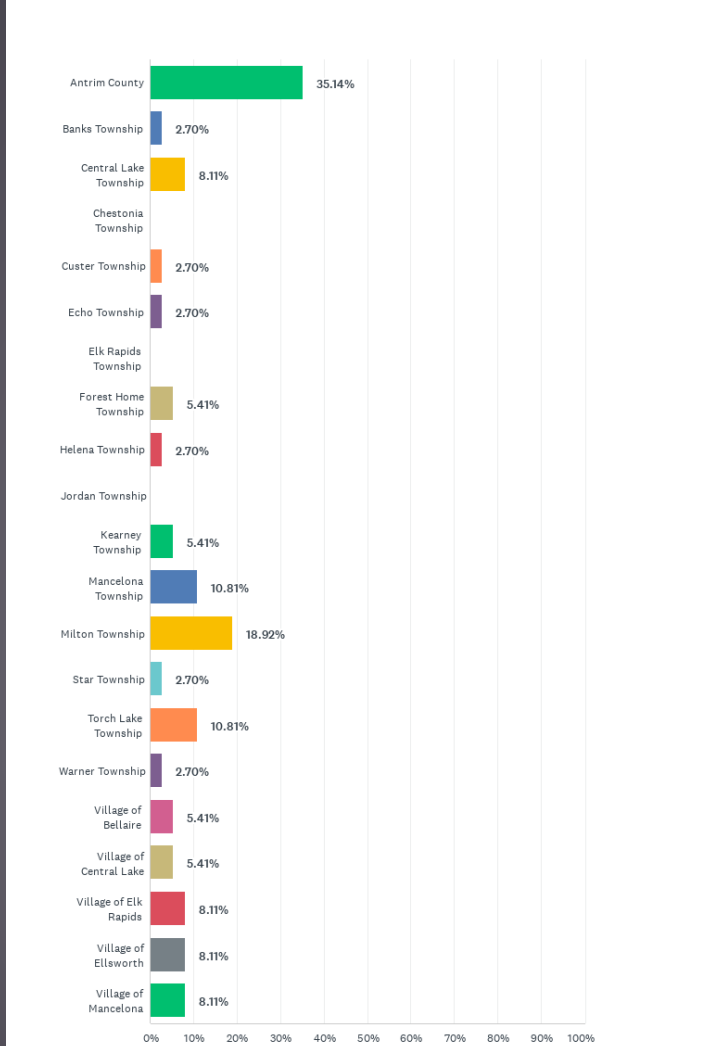
## Antrim County Profile, 2017 USDA Census of Agriculture

	2017	% Change since 2012		
Number of farms	333	-20%		
Land in farms (acres)	55,565	-13%		
Average size of farm (acres)	167	8%		
Percent of state agricultural sales	<0.5%			
<b>Total</b>			Counties in MI producing item(s)	Counties in the U.S. producing item(s)
Market value of products sold	\$35,472,000	69%	47 out of 83	2,037 out of 3,077
Crops	\$28,983,000	89%	42 out of 83	1,438 out of 3,073
Livestock, poultry and other animal products	\$6,488,000	15%	54 out of 82	2,335 out of 3,073
Farm production expenses	\$29,311,000	21%		
Net cash farm income	\$8,066,000	5117%		
<b>Per Farm Average</b>				
Market value of products sold	\$106,521	111%		
Total farm production expenses	\$88,022	51%		
Net cash farm income	\$24,221	6401%		



# Antrim County Hazard Mitigation Community Survey Responses from 10/25/21 to 11/5/21

Q1 Please indicate the local jurisdiction you represent in Antrim County.



37/208 responses =  
17.8% completion  
rate

# Antrim County Hazard Mitigation Community Survey Responses from 10/25/21 to 11/5/21

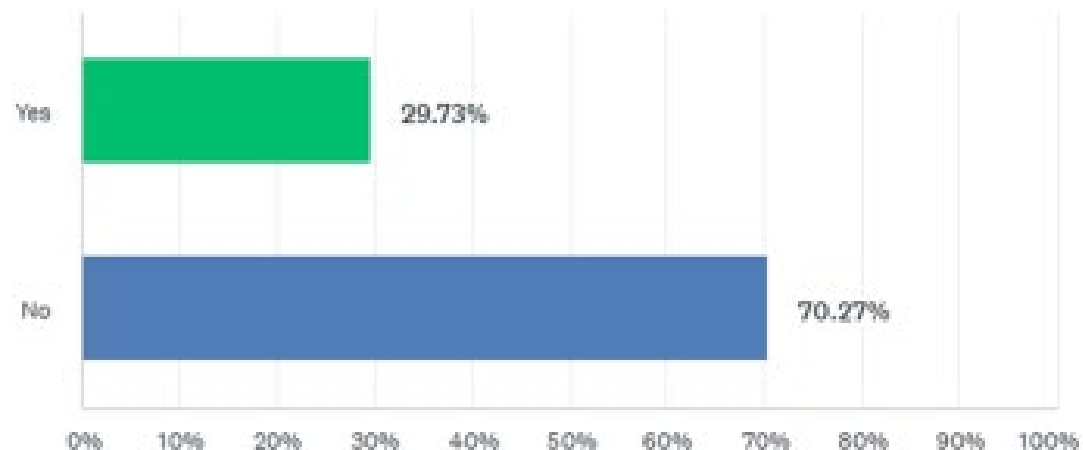
Aim to get more responses from representatives of:

Chestonia, Elk Rapids and Jordan Twps	No Response
Banks, Custer, Echo, Helena, Star and Warner Twps	<3% response
Fire Depts. From Banks Twp, Bellaire, Elk Rapids, Star Twp, Twp Ambulance Authority	No Response
More CERT members	?

# Antrim County Hazard Mitigation Community Survey Responses from 10/25/21 to 11/5/21

## Q3: Are you familiar with the county's Natural Hazard Mitigation Plan?

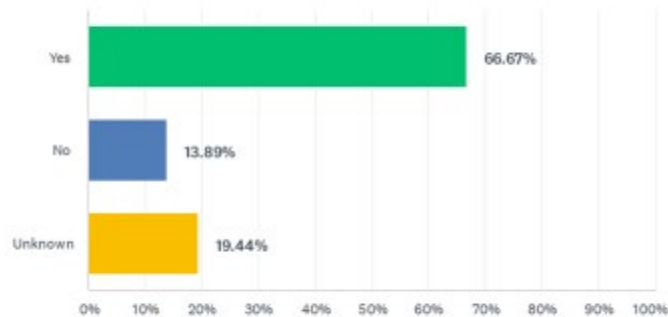
Answered: 37 Skipped: 0



# Antrim County Hazard Mitigation Community Survey Responses from 10/25/21 to 11/5/21

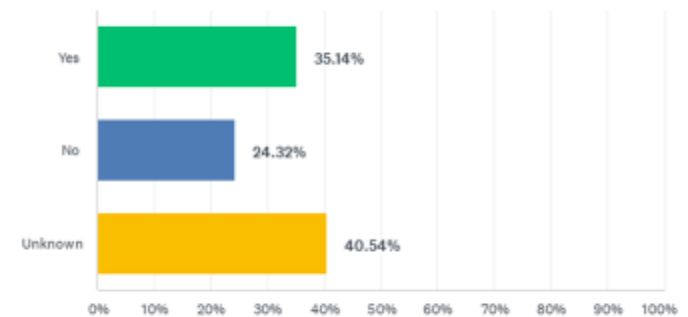
**Q4: Does the community you represent have an adopted Master Plan?**

Answered: 36 Skipped: 1



**Q5: Does the community you represent have an adopted Capital Improvements Plan?**

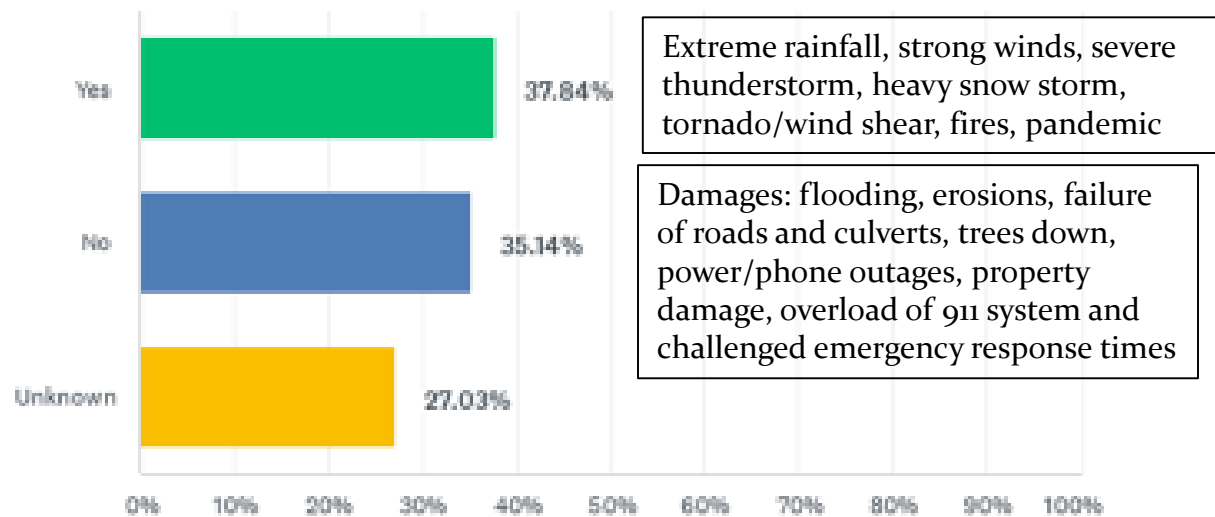
Answered: 37 Skipped: 0



# Antrim County Hazard Mitigation Community Survey Responses from 10/25/21 to 11/5/21

**Q6: Has the community you represent experienced a significant natural hazard event within the last 10 years?**

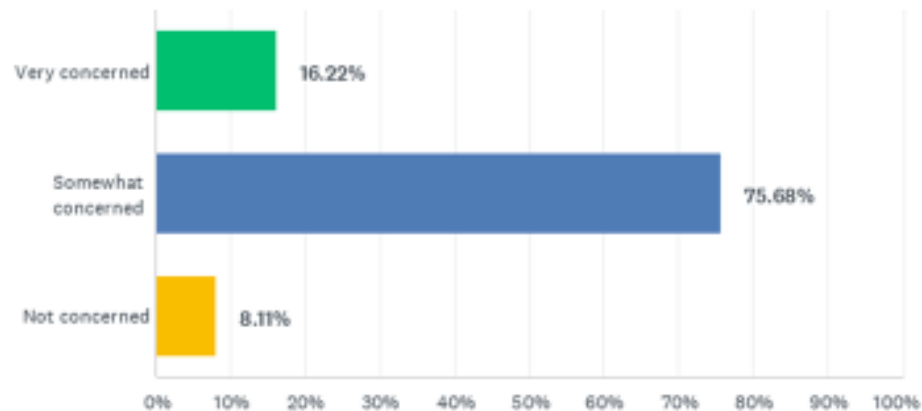
Answered: 37 Skipped: 0



# Antrim County Hazard Mitigation Community Survey Responses from 10/25/21 to 11/5/21

## Q8: How concerned are you about future natural hazard events impacting your community?

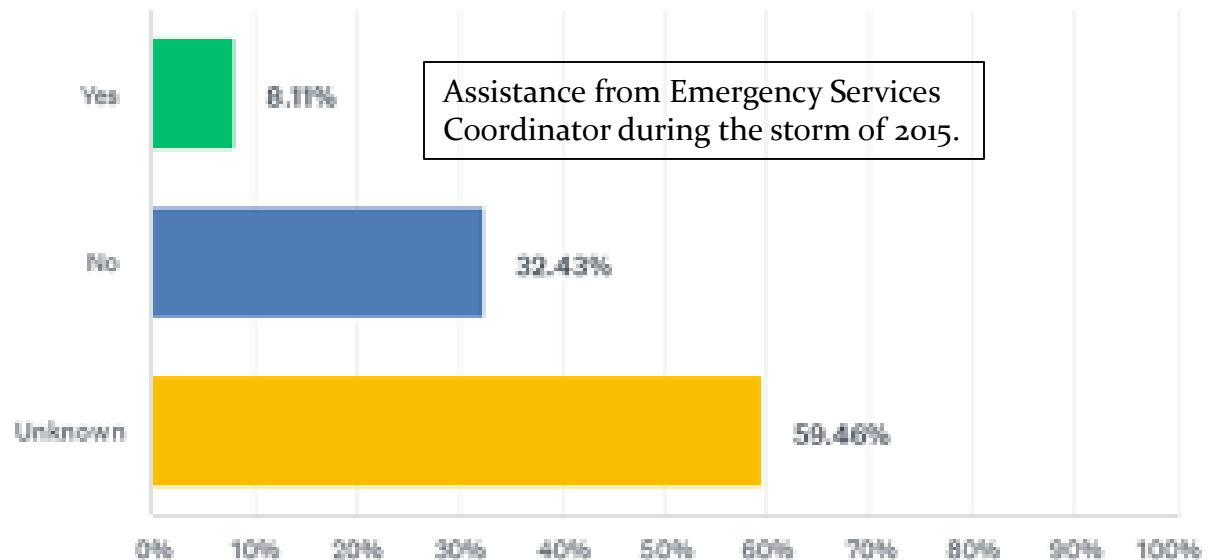
Answered: 37 Skipped: 0



# Antrim County Hazard Mitigation Community Survey Responses from 10/25/21 to 11/5/21

## Q11: Has your community requested assistance for mitigation projects in the past?

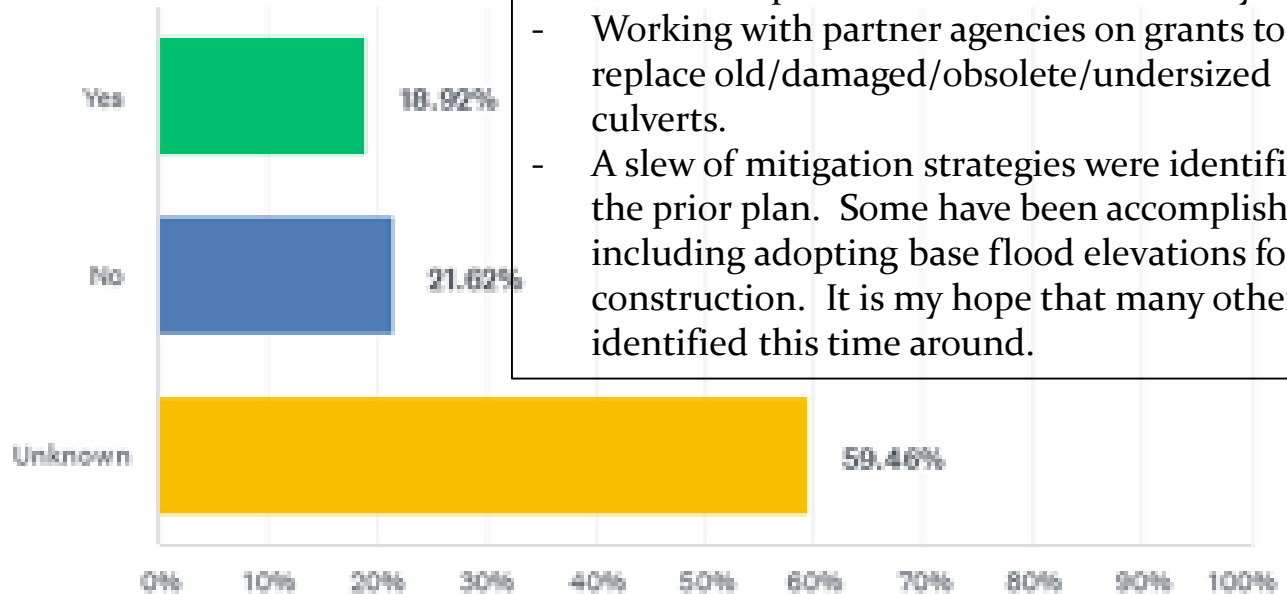
Answered: 37 Skipped: 0



# Antrim County Hazard Mitigation Community Survey Responses from 10/25/21 to 11/5/21

## Q13: Has your community considered mitigation strategies for potential or current hazards?

Answered: 37 Skipped: 0



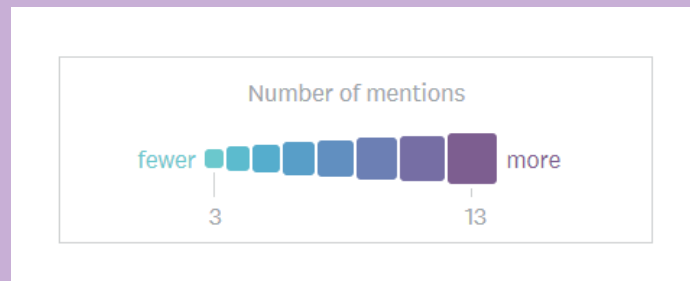
- Funds to replace a culvert under a County road
- Working with partner agencies on grants to replace old/damaged/obsolete/undersized culverts.
- A slew of mitigation strategies were identified in the prior plan. Some have been accomplished – including adopting base flood elevations for new construction. It is my hope that many others will be identified this time around.



# Antrim County Hazard Mitigation Community Survey Responses from 10/25/21 to 11/5/21

**Q9. What type of natural hazard events are likely to have the largest impact on your community, for example fire, flood, drought, illness outbreak, etc.?**

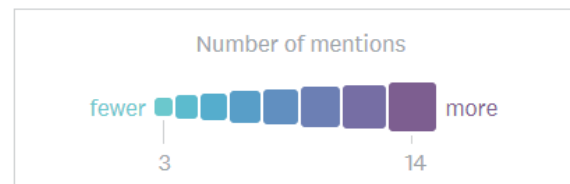
winds road **Flood** illness outbreak **fire** large illness drought



# Antrim County Hazard Mitigation Community Survey Responses from 10/25/21 to 11/5/21

**Q10. Concerns about infrastructure (dams, bridges, utilities, etc.) and the potential for a hazardous event in the future?**

Utilities know dam aging bridges Yes



- Aging infrastructure – follow through on plans in place to inspect and maintain
- 2 dams in County
- Culverts, bridges, roads; State Street Bridge, Torch River Bridge
- Keeping utilities operating in weather events

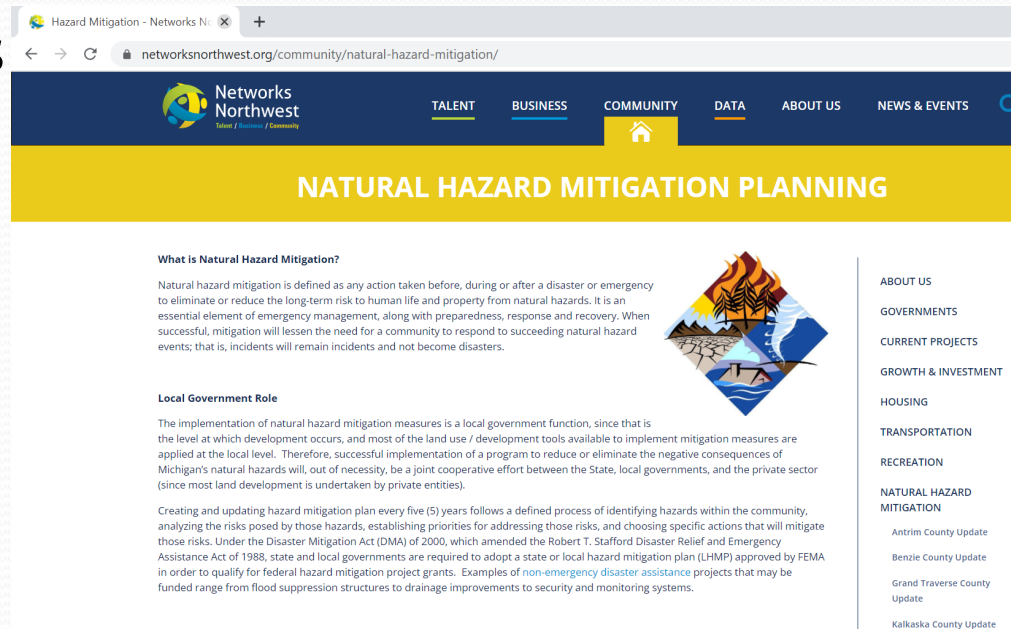
# Antrim County Hazard Mitigation Community Survey Responses from 10/25/21 to 11/5/21

## **Q15. Is there any additional information you would like us to consider as we update the county's Natural Hazard Mitigation Plan?**

- Talk to your local firefighters about information, they are your first line of defense, we respond to everything.
- Water quality could be considered. We have a large amount of lakes and a lot of livelihoods and quality of life rely on the continued good quality of the water. A spill, leak, or unattended issues could create water quality issues that could have an affect on the entire chain of lakes (and most of the county).
- Water drainage management
- More information on resources available from the county level to help mitigate a hazardous condition.
- No-never know had one. Will it be on the Antrim County website and alerted via news stores in local papers?
- Forest management.

# Next Steps

- Identify potential Advisory Team members
- Solicit additional Community Survey responses
- Establish web presence at [nwm.org/HazardPlan](http://nwm.org/HazardPlan)
- Prepare hazard analysis
- Next group meeting



The screenshot shows a web browser window with the address bar displaying "networksnorthwest.org/community/natural-hazard-mitigation/". The website header includes the Networks Northwest logo and navigation links for TALENT, BUSINESS, COMMUNITY, DATA, ABOUT US, and NEWS & EVENTS. The main content area is titled "NATURAL HAZARD MITIGATION PLANNING" and contains the following text:

**What is Natural Hazard Mitigation?**  
Natural hazard mitigation is defined as any action taken before, during or after a disaster or emergency to eliminate or reduce the long-term risk to human life and property from natural hazards. It is an essential element of emergency management, along with preparedness, response and recovery. When successful, mitigation will lessen the need for a community to respond to succeeding natural hazard events; that is, incidents will remain incidents and not become disasters.

**Local Government Role**  
The implementation of natural hazard mitigation measures is a local government function, since that is the level at which development occurs, and most of the land use / development tools available to implement mitigation measures are applied at the local level. Therefore, successful implementation of a program to reduce or eliminate the negative consequences of Michigan's natural hazards will, out of necessity, be a joint cooperative effort between the State, local governments, and the private sector (since most land development is undertaken by private entities).

Creating and updating hazard mitigation plan every five (5) years follows a defined process of identifying hazards within the community, analyzing the risks posed by those hazards, establishing priorities for addressing those risks, and choosing specific actions that will mitigate those risks. Under the Disaster Mitigation Act (DMA) of 2000, which amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, state and local governments are required to adopt a state or local hazard mitigation plan (LHMP) approved by FEMA in order to qualify for federal hazard mitigation project grants. Examples of non-emergency disaster assistance projects that may be funded range from flood suppression structures to drainage improvements to security and monitoring systems.

On the right side of the page, there is a vertical navigation menu with the following items: ABOUT US, GOVERNMENTS, CURRENT PROJECTS, GROWTH & INVESTMENT, HOUSING, TRANSPORTATION, RECREATION, NATURAL HAZARD MITIGATION, Antrim County Update, Benzie County Update, Grand Traverse County Update, and Kalkaska County Update. A diamond-shaped graphic with icons for fire, trees, a boat, and a house is positioned between the text and the menu.



# Thank you!

- Any questions??