

# Kalkaska County Hazard Mitigation Plan Update

November 23, 2021



**Networks  
Northwest**

**Talent / Business / Community**



# Welcome

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



# Introductions

- Networks Northwest Staff
  - Jennifer Neal, AICP
  - Stephanie Loria
- 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

# Kalkaska County LEPC/LPT Membership

Name	Representation
Jerri Foley	American Red Cross
M Foley	American Red Cross
Meghan Powers	American Red Cross
Greg Bradley	Clearwater Fire Dept.
Doug Pratt	Crawford County EM
Brian Flickinger	EGLE
Bret Haner	Health Dept. District #10
Nick Summerland	HSE Manager at Lambda Energy Resources LLC
Dave Comai	Kalkaska County
Jodi Magee	Kalkaska County Commission on Aging
Bob Baldwin	Kalkaska County Commissioner Dist. 2
Kohn Fisher	Kalkaska County Commissioner Dist. 3
James Sweet	Kalkaska County Commissioner Dist. 4
Katina Banko	Kalkaska County Commissioner Dist. 7
John Rogers	Kalkaska County Road Commission
Sheriff Pat Whiteford	Kalkaska County Sheriff's Office
Sgt. Scott Griffith	Kalkaska County Sheriff's Office
Undersheriff Dave Wagner	Kalkaska County Sheriff's Office
Mike Berendsohn	Kalkaska EMS Director
LT Aaron Popa	Kalkaska Public Safety Dept
Rick Heitmeyer	Kalkaska Public Schools Superintendent
Harry Shipp	Kalkaska Public Transit Authority
Scott Yost	Kalkaska Village Manager
Donna Wednieski	MDHHS
Kris Lagios	MDHHS
Michael Hearn	MDNR Conservation Officer
Bobby Helsel	MDOT - Kalkaska Facility
Scott McManus	Michigan State Police
SGT. S. Bates	Michigan State Police Houghton Lake Post
LT Mike deCastro	Michigan State Police/ Em. Mgmt & Homeland Security District 7 Coordinator
Mark Randolph	Soil Conservation District
Steven Cameron	State of MI Forest Fire Supervisor



# Community Profile\*

- Demographics
- Housing
- Income
- Economy
- Agriculture

\*2019 ACS 5-year data unless otherwise specified



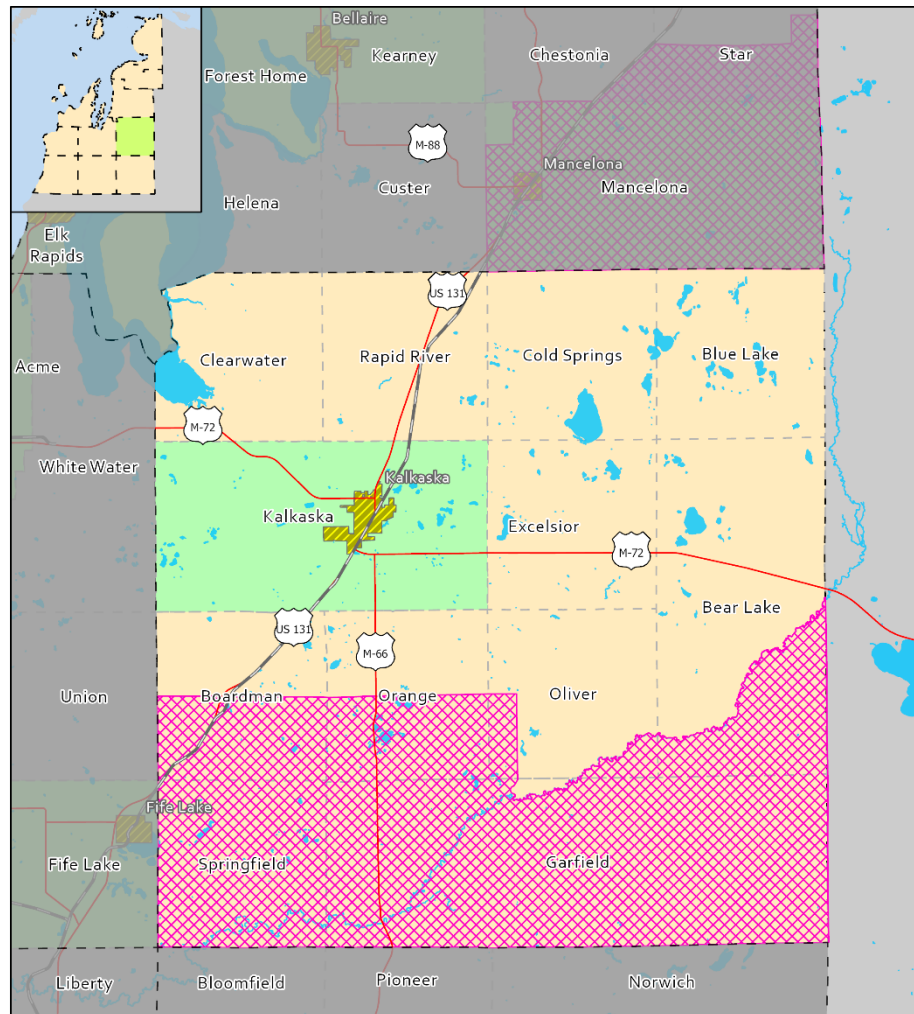
[Home](#) [News](#) [Programs](#) [Music](#) [Schedule](#) [TV](#) [Events](#) [About Us](#) [Support](#) [Contact](#)

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

By ASSOCIATED PRESS • MAY 7, 2019



CREDIT ROBERT FRANKLIN / SOUTH BEND TRIBUNE VIA AP



## Kalkaska 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
- All Villages
- Kalkaska County
- Other NW MI Counties
- Counties Outside Region



0 1.5 3 6 Miles

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



# Reference Documents

- Kalkaska County Master Plan 2016-21
- Other regional reports

## Kalkaska County Master Plan 2016-2021



*Springfield Township Recreation Area, Springfield Township*



## 2020 Comprehensive Economic Development Strategy (CEDS)

for the Michigan 10-County Region of Antrim, Benzie, Charlevoix, Emmet,  
Grand Traverse, Kalkaska, Leelanau, Manistee, Missaukee, and Wexford Counties



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April 2020

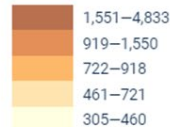
# Demographics

- Population by local jurisdiction

Municipality	2019 Estimated Population	%
Kalkaska County	17,585	
Kalkaska Township	4,833	27.5%
Clearwater Township	2,493	14.2%
Boardman Township	1,550	8.8%
Cold Springs Township	1,475	8.4%
Springfield Township	1,442	8.2%
Orange Township	1,395	7.9%
Rapid River Township	1,370	7.8%
Excelsior Township	918	5.2%
Garfield Township	721	4.1%
Bear Lake Township	623	3.5%
Blue Lake Township	460	2.6%
Oliver Township	305	1.7%

SEX AND AGE—Total population—Estim... in 2019

Geos: 12



2  
5  
1  
2  
2

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

VIEW TABLE

Color Palette



Data Classes

Classification Types

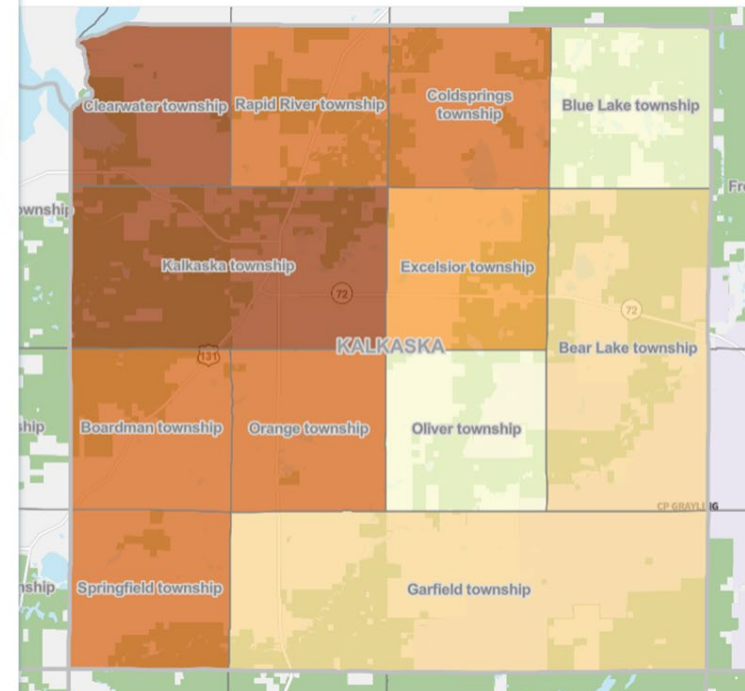
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Natural Breaks

Survey/Program: American Community Survey

Geographies: County Subdivision

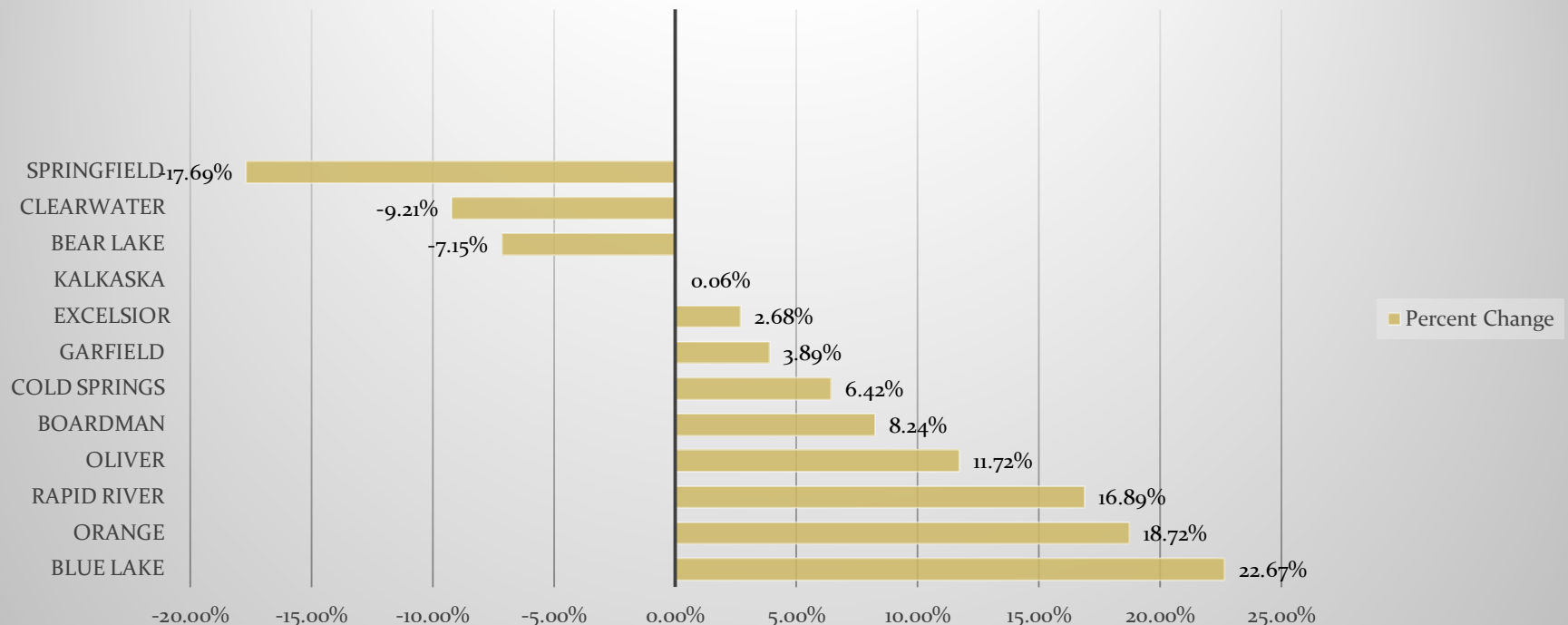
Select Clear Geos Basemap Table Notes



# Demographics

- Population change by local jurisdiction

**% Population Change, 2010-2019, Townships in Kalkaska County**



# Demographics

- Population change by local jurisdiction

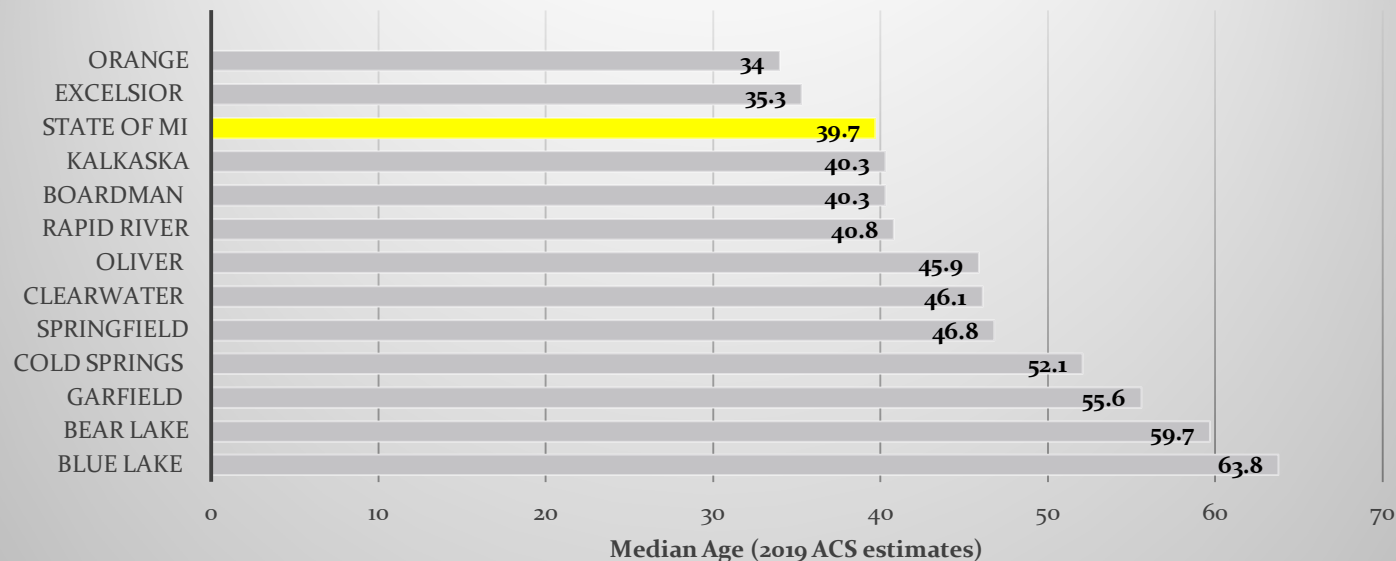
Kalkaska County and Municipalities Population Estimates, 2010-2019				
Municipality	2010 Estimated Population	2019 Estimated Population	Numeric Change	Percent Change
Kalkaska County	17,400	17,585	185	1.1%
Blue Lake Township	375	460	85	22.7%
Orange Township	1,175	1,395	220	18.7%
Rapid River Township	1,172	1,370	198	16.9%
Oliver Township	273	305	32	11.7%
Boardman Township	1,432	1,550	118	8.2%
Cold Springs Township	1,386	1,475	89	6.4%
Garfield Township	694	721	27	3.9%
Excelsior Township	894	918	24	2.7%
Kalkaska Township	4,830	4,833	3	0.1%
Bear Lake Township	671	623	-48	-7.2%
Clearwater Township	2,746	2,493	-253	-9.2%
Springfield Township	1,752	1,442	-310	-17.7%

Source: U.S. Census Bureau, ACS 5-Yr Estimates

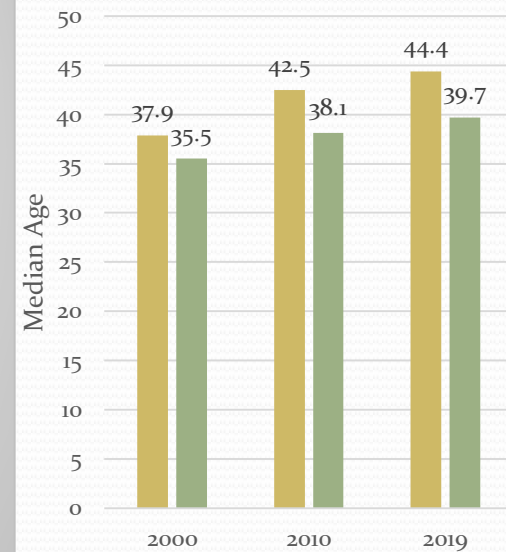
# Demographics

- Median age

## Median Age of Kalkaska County's Townships and the State of MI



## Median Age Trends



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

■ Kalkaska County ■ Michigan

# Demographics

- Age groups by local jurisdiction

Kalkaska County: Estimated 2019 Age Distribution by Municipality

Community	Median Age	< 9 years	%	10 to 19 years	%	20 to 34 years	%	35 to 54 years	%	55 to 64 years	%	65 to 74 years	%	75+ years	%	Total Pop.
Orange Township	34	216	15.5%	179	12.8%	338	24.2%	306	21.9%	190	13.6%	116	8.3%	50	3.6%	1,395
Excelsior Township	35.3	150	16.3%	122	13.3%	186	20.3%	211	23.0%	114	12.4%	81	8.8%	54	5.9%	918
Michigan	39.7	1,162,159	11.7%	1,284,833	12.9%	1,972,568	19.8%	2,482,628	24.9%	1,396,734	14.0%	483,853	4.9%	690,926	6.9%	9,965,265
Boardman Township	40.3	212	13.7%	145	9.4%	293	18.9%	399	25.7%	243	15.7%	167	10.8%	91	5.9%	1,550
Kalkaska Township	40.3	405	8.4%	929	19.2%	716	14.8%	1,346	27.9%	559	11.6%	472	9.8%	406	8.4%	4,833
Rapid River Township	40.8	165	12.0%	150	10.9%	248	18.1%	367	26.8%	216	15.8%	184	13.4%	40	2.9%	1,370
Kalkaska County	44.4	1,868	10.6%	2,147	12.2%	2,864	16.3%	4,397	25.0%	2,833	16.1%	2,166	12.3%	1,310	7.4%	17,585
Oliver Township	45.9	28	9.2%	28	9.2%	67	22.0%	73	23.9%	35	11.5%	45	14.8%	29	9.5%	305
Clearwater Township	46.1	313	12.6%	224	9.0%	438	17.6%	563	22.6%	457	18.3%	324	13.0%	174	7.0%	2,493
Springfield Township	46.8	137	9.5%	128	8.9%	219	15.2%	432	30.0%	278	19.3%	188	13.0%	60	4.2%	1,442
Cold Springs Township	52.1	136	9.2%	152	10.3%	170	11.5%	396	26.8%	270	18.3%	202	13.7%	149	10.1%	1,475
Garfield Township	55.6	67	9.3%	38	5.3%	82	11.4%	158	21.9%	165	22.9%	129	17.9%	82	11.4%	721
Bear Lake Township	59.7	30	4.8%	41	6.6%	93	14.9%	83	13.3%	160	25.7%	143	23.0%	73	11.7%	623
Blue Lake Township	63.8	9	2.0%	11	2.4%	14	3.0%	63	13.7%	146	31.7%	115	25.0%	102	22.2%	460



# Demographics

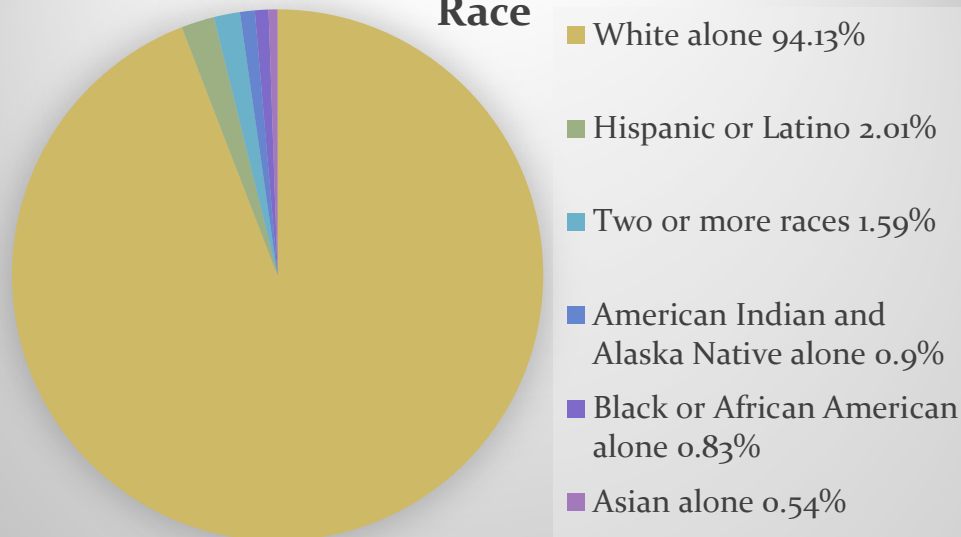
- Disability Status In Kalkaska County

KALKASKA COUNTY	Population	Percentage
2019 Estimate of Total Civilian Noninstitutionalized Population	17,528	
Estimated number of people with one or more type of disability	3,200	18.30%
With a vision difficulty	409	2.30%
With a self-care difficulty	623	3.70%
With a hearing difficulty	988	5.60%
With a cognitive difficulty	1,221	7.30%
With an independent living difficulty	1,181	8.50%
With an ambulatory difficulty	1,643	9.90%

# Demographics

- Population by Race and Limited English-Speaking Households

**Kalkaska County 2019 Population by Race**



## **Limited English-Speaking Households in Kalkaska County**

### **Asian and Pacific Island Languages:**

3/226 HH in Blue Lake Twp.

3/345 HH in Garfield Twp.

### **Spanish:**

2/344 HH in Excelsior Twp.

# Housing

- Units by local jurisdiction

Municipality	2010 Housing Units (ACS)	2019 Housing Units (ACS)	Percent Change	Unit Change
Kalkaska County	12,061	12,370	2.5%	309
Clearwater Township	1,544	1,464	-5.5%	-80
Excelsior Township	703	639	-10.0%	-64
Cold Springs Township	1,515	1,471	-3.0%	-44
Bear Lake Township	1,157	1,116	-3.7%	-41
Blue Lake Township	799	775	-3.1%	-24
Boardman Township	803	797	-0.8%	-6
Springfield Township	913	925	1.3%	12
Oliver Township	265	295	10.2%	30
Orange Township	657	687	4.4%	30
Rapid River Township	676	759	10.9%	83
Garfield Township	806	928	13.1%	122
Kalkaska Township	2,223	2,514	11.6%	291

# Housing

- County Occupancy Status

## Kalkaska County Housing Unit Occupancy

<b>Total housing units</b>	<b>12,370</b>	<b>%</b>
Occupied housing units	7,145	57.8%
Owner-occupied	5,901	82.6%
Renter-occupied	1,244	17.4%
Vacant housing units	5,225	42.2%

# Housing

- Units by Year Structure Built

**Year Housing Structure Built, Kalkaska County**

Year Built	Housing Units	Percentage of Units
Built 2000 or later	1,905	15.4%
Built 1990 to 1999	2,147	17.4%
Built 1980 to 1989	1,865	15.1%
Built 1960 to 1979	4,073	32.9%
Built 1940 to 1959	1,389	11.2%
Built 1939 or earlier	991	8.0%
Total Housing Units	12,370	

Source: U.S. Census, ACS 2019 5-yr data

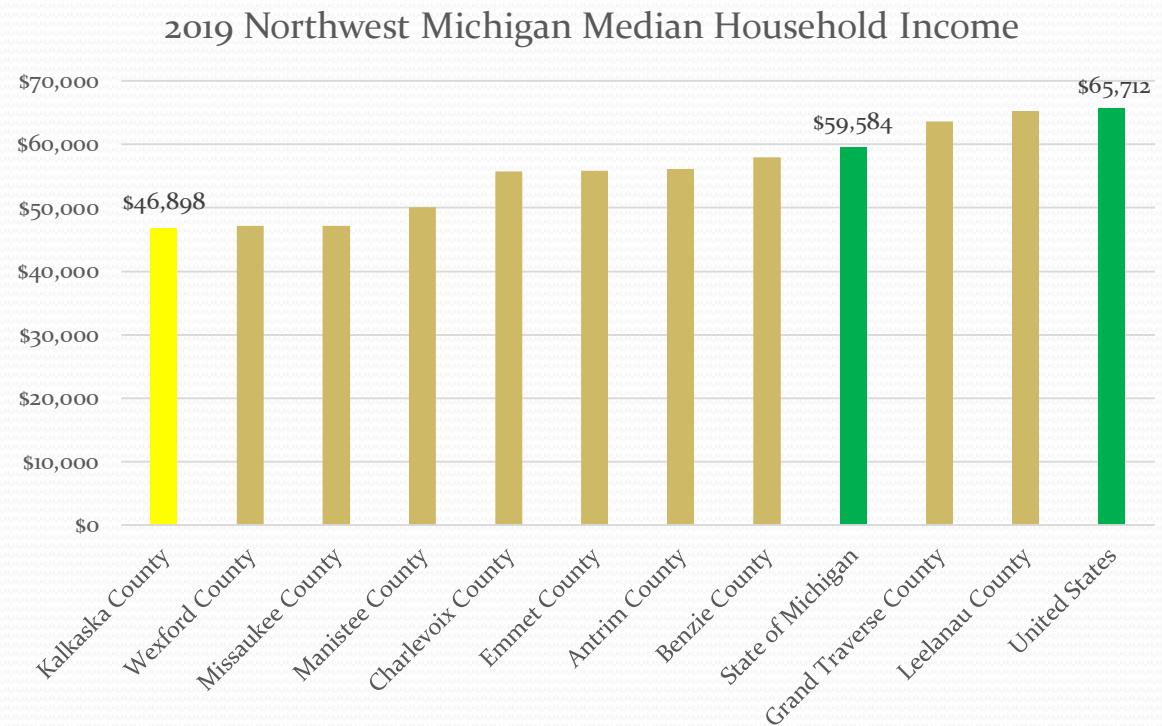
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52.1% of the housing is 40 or more years old

# 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 Households

Kalkaska County	Total	Below poverty level	Percent below poverty level
<b>Population for whom poverty status is determined</b>	<b>17,423</b>	<b>2,905</b>	<b>16.7%</b>
Individuals under 18 years	3,567	731	20.5%
Individuals 18 to 64 years	10,380	1,852	17.8%
Individuals 65 years and over	3,476	322	9.3%
<b>Total households in Kalkaska County</b>	<b>7,145</b>	<b>1,105</b>	<b>15.47%</b>
Family Households		603	8.44%
In married-couple family:		309	
In other family:		294	
Male householder, no spouse present:		56	
Female householder, no spouse present:		238	
In Non-Family Households		502	7.03%
Source: US Census Bureau 2019 ACS 5-Yr Estimates			

# 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 Kalkaska County**

Location	Total HH in Poverty and ALICE	% of HH in Poverty and ALICE	Poverty HH	ALICE HH	Total HH
Oliver Township	50	39.4%	26	24	127
Blue Lake Township	74	32.7%	23	51	226
Bear Lake Township	135	44.6%	68	67	303
Excelsior Township	135	39.2%	30	105	344
Boardman Township	169	30.4%	47	122	556
Garfield Township	174	50.4%	48	126	345
Orange Township	202	41.9%	79	123	482
Springfield Township	217	37.2%	104	113	584
Rapid River Township	266	47.7%	98	168	558
Cold Springs Township	274	42.9%	127	147	639
Clearwater Township	392	39.8%	171	221	985
Kalkaska Township	910	45.6%	284	626	1,996
<b>KAKLKASKA COUNTY</b>	<b>2,998</b>	<b>41.0%</b>	<b>1,105</b>	<b>1,893</b>	<b>7,145</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. ”***

# Agriculture

## Kalkaska County Profile, 2017 USDA Census of Agriculture

Total	2017	% Change since 2012	Rank out of counties in MI producing item(s)	Rank out of counties in U.S. producing item(s)
Number of farms	225	<0.5%		
Land in farms (acres)	27,137	5%		
Average size of farm (acres)	121	5%		
Percent of state agricultural sales	<0.5%			
Market value of products sold	\$8,325,000	-5%	65/83	2,725/3,077
Crops	\$7,683,000		55/83	2,166/3,073
Livestock, poultry and other animal products	\$642,000		76/82	2,885/3,073
Farm production expenses	7,715,000	-5		
Net cash farm income	1,437,000	18%		
Per Farm Average				
Market value of products sold	\$37,000	-6%		
Total farm production expenses	\$34,291	-5%		
Government payments (avg per farm receiving)	\$3,771	38%		
Farm-related income	\$7,649	3%		
Net cash farm income	\$6,387	17%		

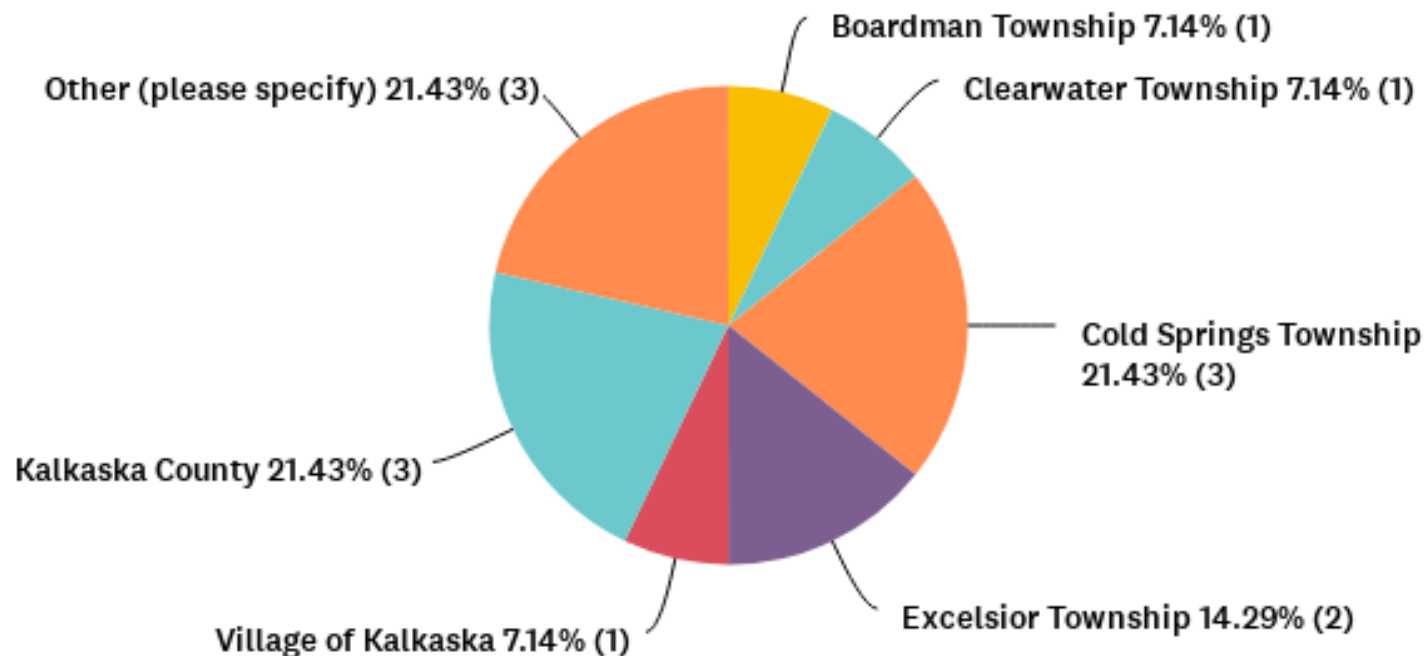


**“WE ARE IN A WAR ZONE AGAINST THIS DISEASE.”**  
CLIMATE CHANGE IS FUELING FIRE BLIGHT, AND NORTHERN MICHIGAN’S APPLE ORCHARDS ARE AT RISK.

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?

# Kalkaska County Hazard Mitigation Community Survey Responses from 11/8/21 to 11/19/21



- 14 responded out of 88 invitations = 15.9%

# Kalkaska County Hazard Mitigation Community Survey Responses from 11/8/21 to 11/19/21

Aim to get more responses from:

Bear Lake, Blue Lake, Garfield, Kalkaska, Oliver, Orange, Rapid River and Springfield Twps
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Kalkaska Police/Sheriff's Office
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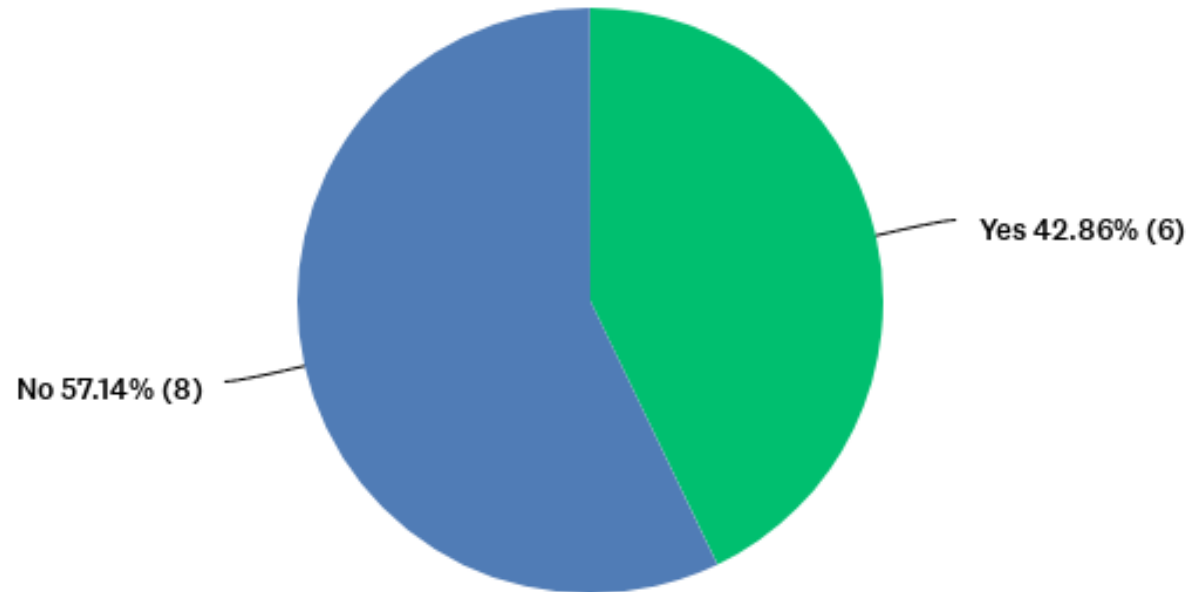
Kalkaska Public Schools
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Fire Depts.
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More LEPC/LPT members
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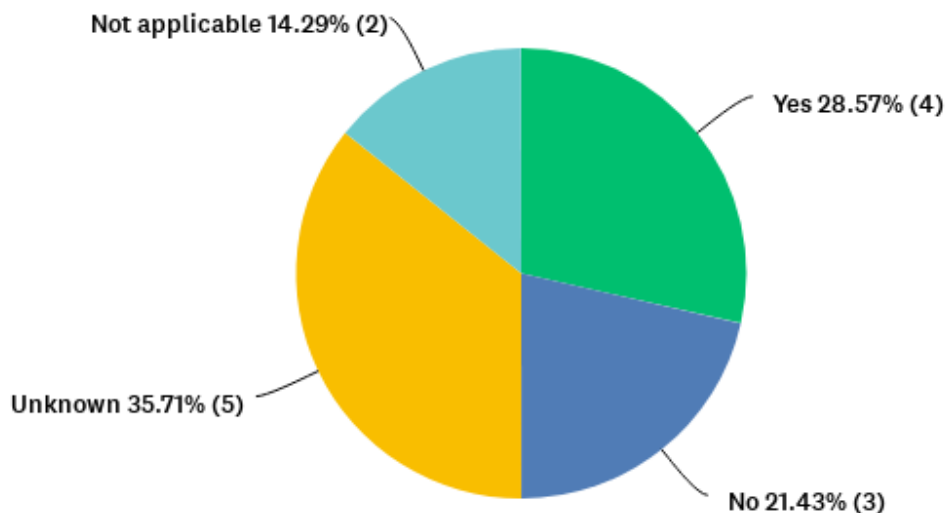
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# Q3: Are you familiar with the county's Natural Hazard Mitigation Plan?



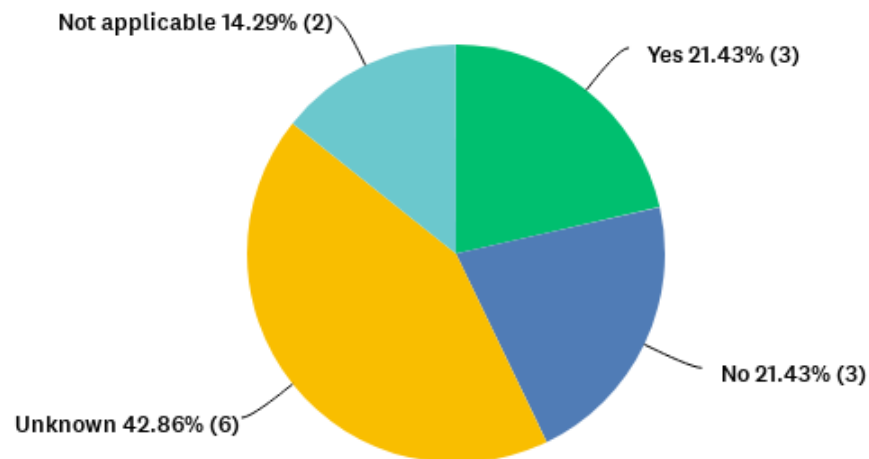


Q4: Does the community you represent have an adopted Master Plan?



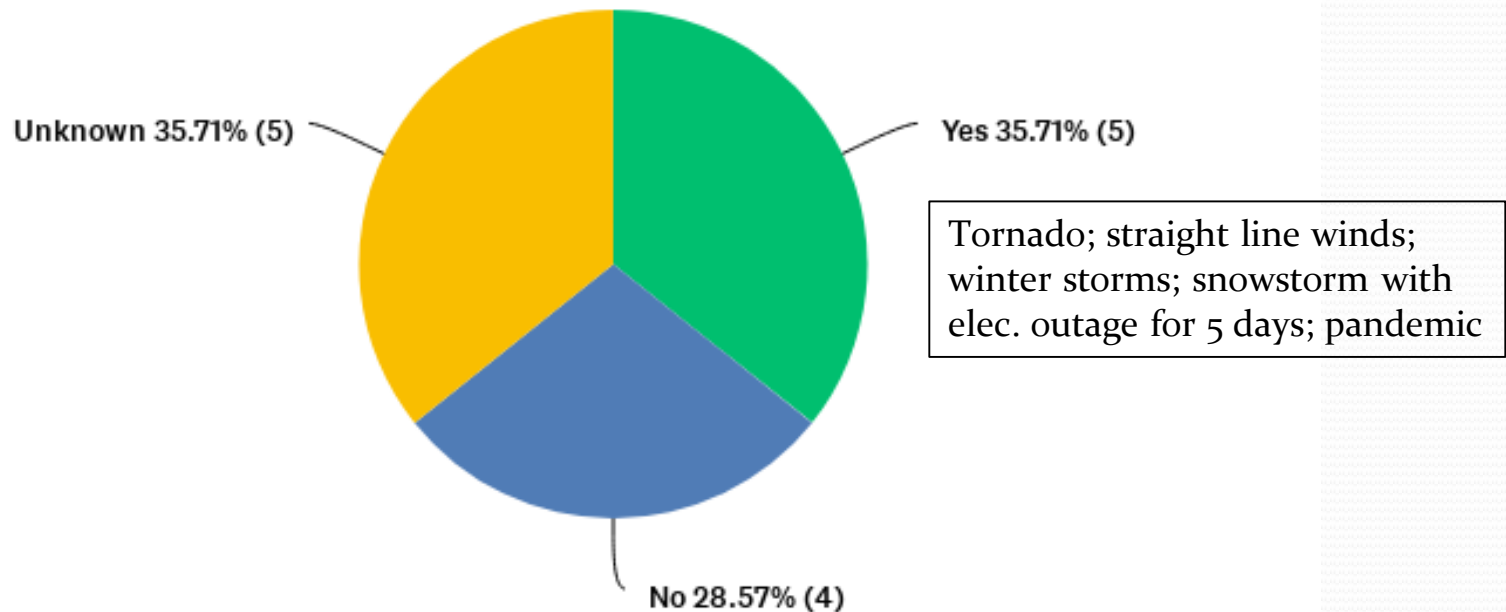
Yes: Village of Kalkaska, Kalkaska County, Excelsior Twp., Boardman Twp.

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

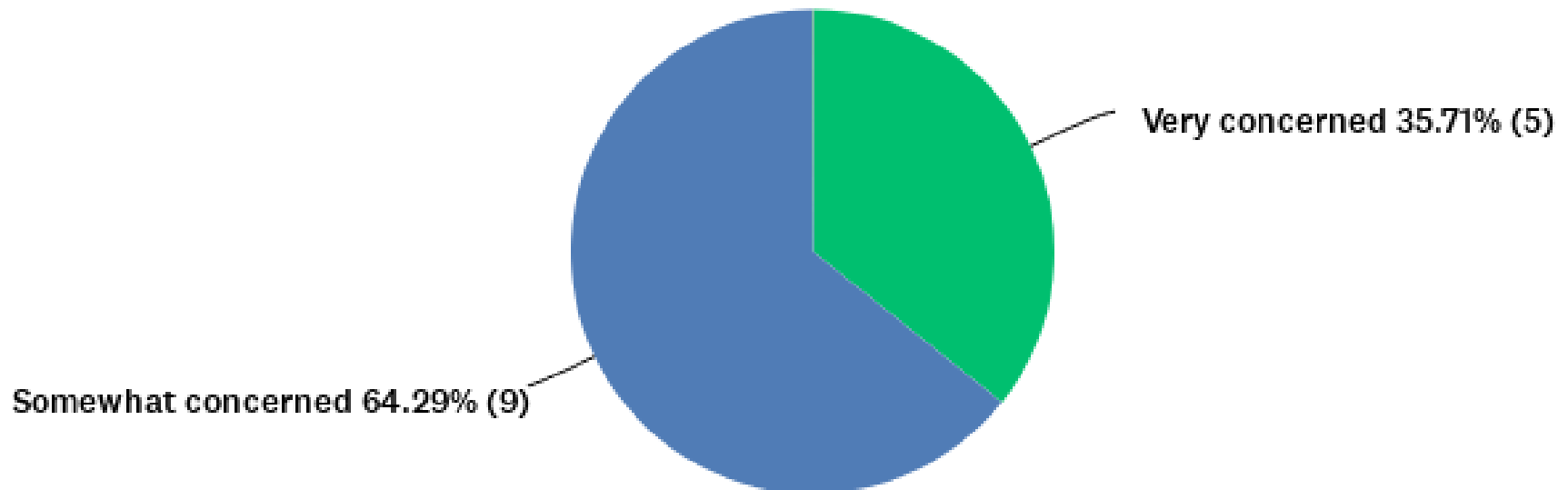


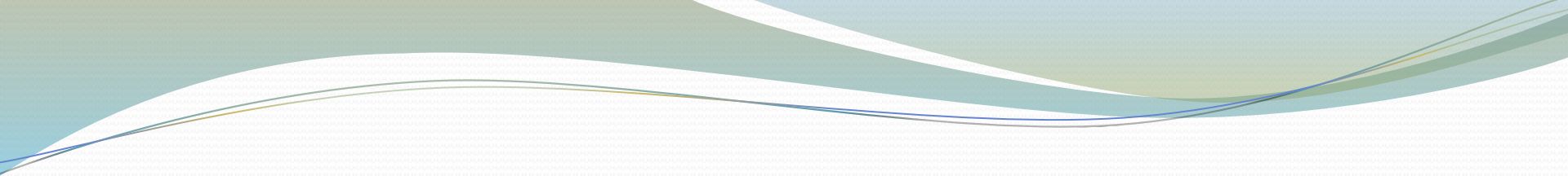
Yes: County Road Commission, Excelsior Twp., Cold Springs Twp.

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



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



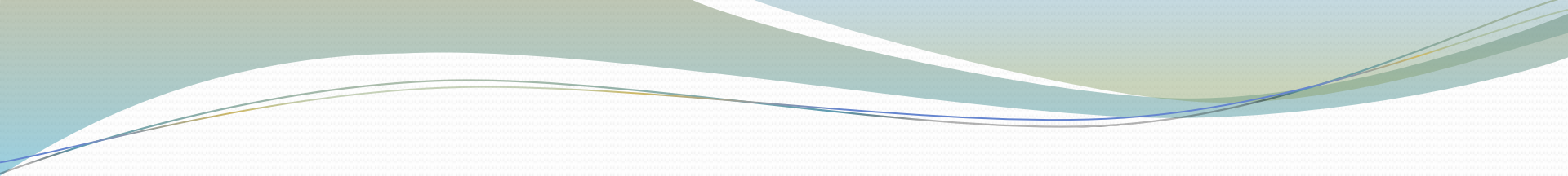


Q9. What type of natural hazard events are likely to have the largest impact on your community, for example fire, flood, drought, illness outbreak, etc.?

1. Storms/Winter Storms
2. Fire
3. Illness Outbreak
4. Flooding
5. Tornado
6. Drought

**Also mentioned:**

Power loss  
Contaminated well water  
Gas/oil leaks  
Cell tower infrastructure takeover/destruction



Q10. Does your community have concerns about infrastructure (dams, bridges, utilities, etc.) and the potential for a hazardous event in the future? Please describe.

Dams: Rugg Pond Dam; numerous privately-owned small dams that could fail

Bridges: several in the county are listed as severe or poor road stream crossing

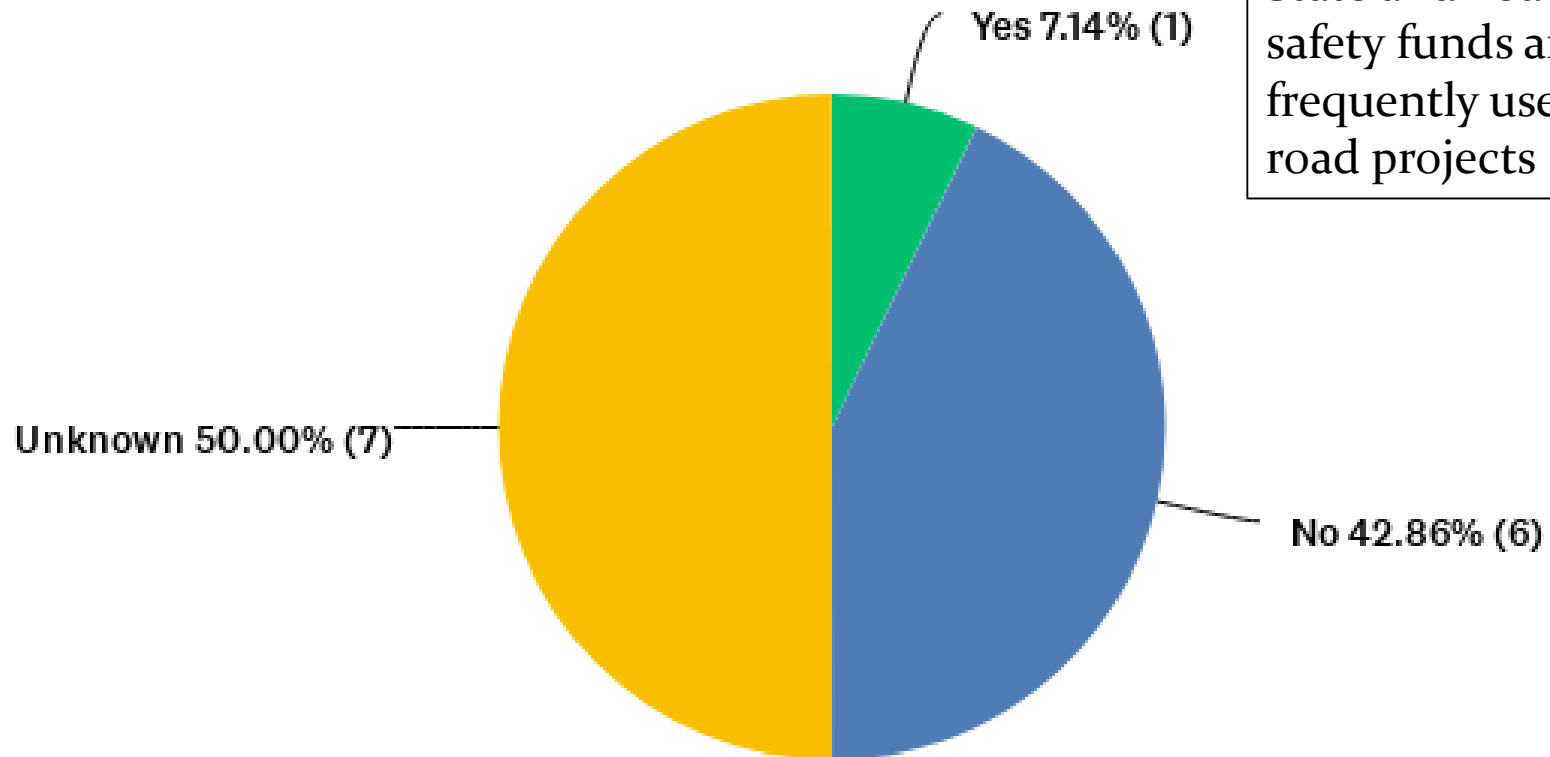
CR 571 flooding

Utilities (in general)

WiFi improvements

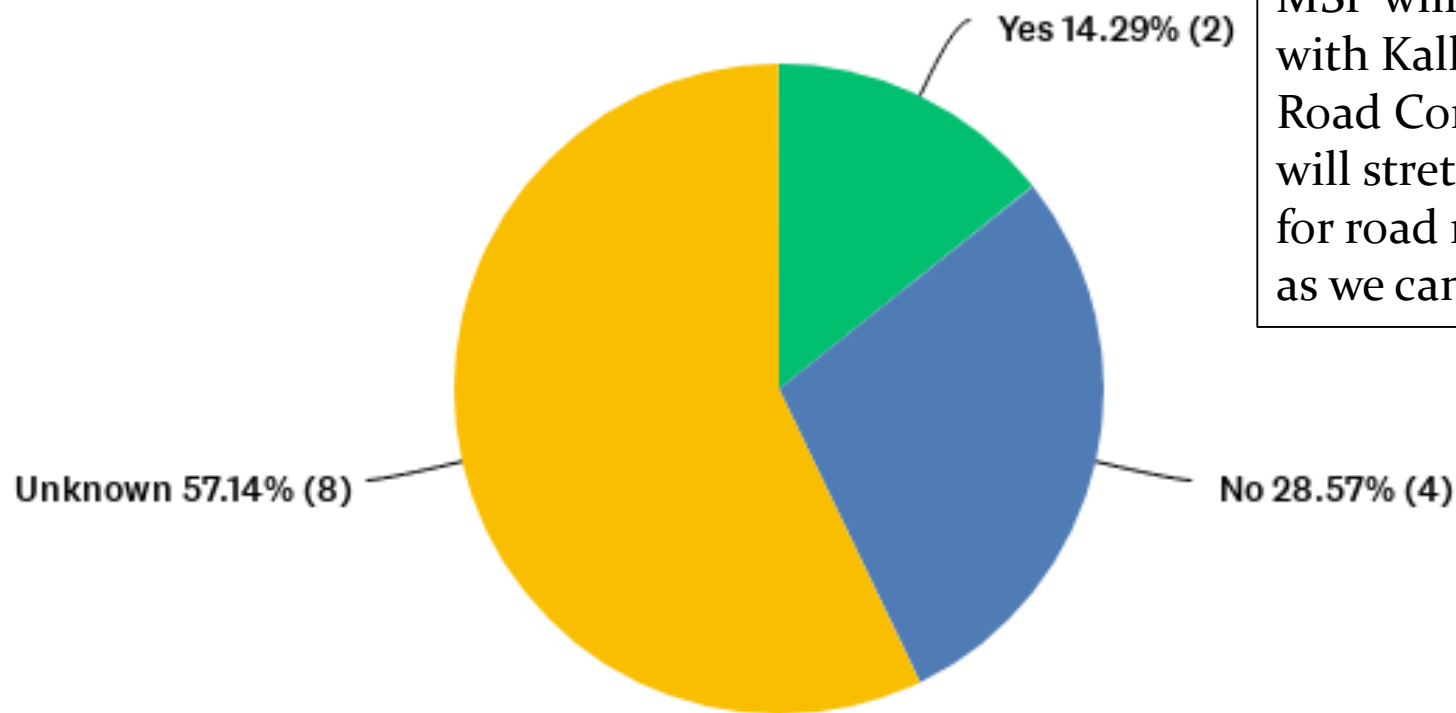
# Q11: Has your community requested assistance for mitigation projects in the past?

State and Federal safety funds are frequently used for road projects

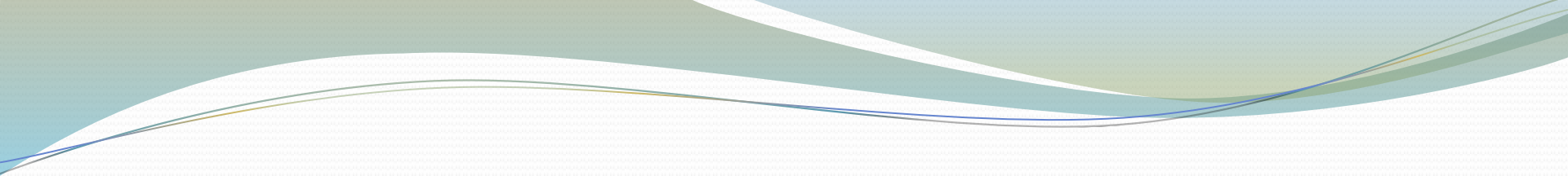




## Q13: Has your community considered mitigation strategies for potential or current hazards?



MSP will collaborate with Kalkaska EM; Road Commission will stretch funding for road repairs as far as we can.



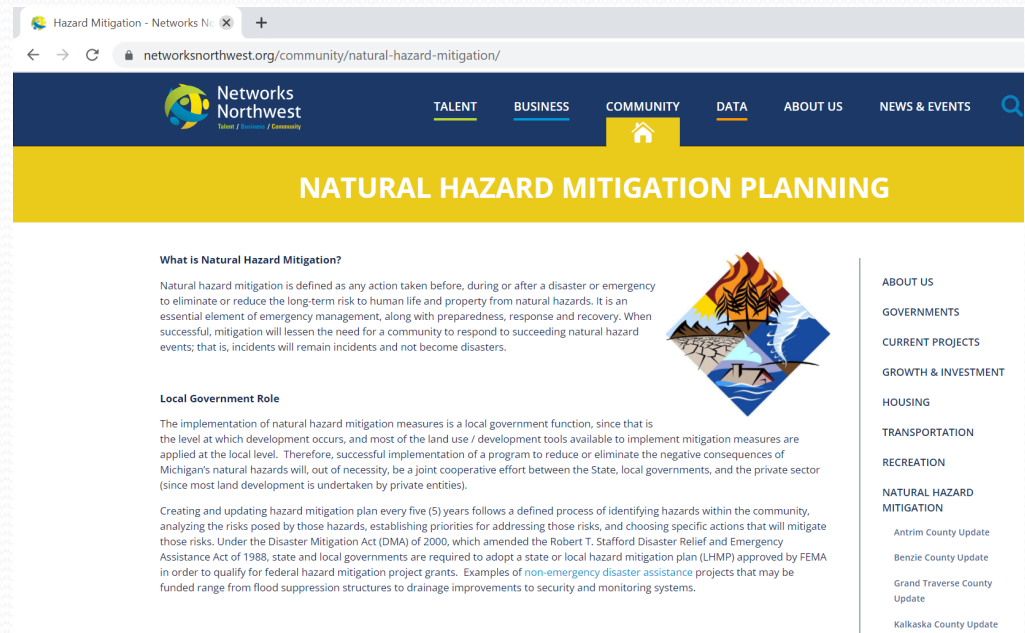
Q15. Is there any additional information you would like us to consider as we update the county's Natural Hazard Mitigation Plan?

Road Commission: "Forest fires and tornadoes are our biggest exposure."

Excelsior Twp. has been discussing using A.R.P.A. monies to set up their hall as a shelter.

# 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 features the Networks Northwest logo and navigation links: TALENT, BUSINESS, COMMUNITY (highlighted with a home icon), DATA, ABOUT US, and NEWS & EVENTS. Below the header is a yellow banner with the text "NATURAL HAZARD MITIGATION PLANNING".


**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.



**ABOUT US**

- GOVERNMENTS
- CURRENT PROJECTS
- GROWTH & INVESTMENT
- HOUSING
- TRANSPORTATION
- RECREATION
- NATURAL HAZARD MITIGATION
  - Antrim County Update
  - Benzie County Update
  - Grand Traverse County Update
  - Kalkaska County Update



# Thank you!

- Any questions??