

Q1 - Charlevoix County and Networks Northwest are currently working on Phase I of the process to update to the Charlevoix County Hazard Mitigation Plan. Hazard mitigation planning reduces loss of life and property by minimizing the impact of natural disasters. This phase of the update includes data collection and community input from all local jurisdictions in Charlevoix County. Your participation in this survey is vital to the success of the planning process. We are seeking input on past projects, hazard events in your community, and potential strategies you would like to see considered in the plan. Your participation is also voluntary. You may choose not to answer certain questions, to discontinue your participation at any time, or not to participate at all, without consequences. Local officials should note their name, organization, and title will be used in the final plan to indicate participation from an agency representative - a requirement of the approval agency, FEMA. If you have any questions or concerns about this project, please contact Jennifer Neal, (231-709-3204; jennifer.neal@networksnorthwest.org).

Q2 - Please identify the jurisdiction you represent in Charlevoix County
(choose all that apply).

Field	Choice Count
Charlevoix County Government	15
City of Boyne City	4
Village of Boyne Falls	1
City of Charlevoix	13
City of East Jordan	3
Bay Township	3
Boyne Valley Township	3
Chandler Township	1
Charlevoix Township	2
Evangeline Township	1
Eveline Township	3
Hayes Township	1
Hudson Township	0
Marion Township	2
Melrose Township	1
Norwood Township	2
Peaine Township	1
South Arm Township	3
St. James Township	7
Wilson Township	2
Other	5
Total	73

Q3 - What is your role/organizational representation within Charlevoix County (i.e. resident, local government employee, elected official, business or property owner, etc.)?

What is your role/organizational representation within Charlevoix County (i.e. resident, local government employee, elected official, business or property owner, etc.)?

Elected official

Local gov't employee

Cheboygan County Emergency Management

N/A

City of Charlevoix full time resident, Planning Commission

resident

Resident, local government employee

Resident, appointed official

Resident

Permanent resident

Property owner, multiple

Resident

Business and Property Owner

Property owner

county government employee and county resident

resident

Elected District 5 County Commissioner

elected official

Chair, Shade Tree and Parks Commission, City of Charlevoix

Elected Official

Resident

Township Clerk

Elected official: Supervisor of St James Township

Resident/Long Term Care Emergency Preparedness

Hospital Employee/Emergency Management

resident

EMS Director

Supervisor

elected official

Planning Commission

Planning Commissioner

Planning Commission Member

Resident, Local Government Employee

St James Planning Commission

resident

Charlevoix County Planning Commissioner and resident of Peaine Township

Resident

Resident

resident

Tip of the Mitt Watershed Council

resident

City Administrator

local government employee

Elected Official

Property owner

Grand Traverse Band Tribal Historic Preservation Officer

Melrose Township Supervisor

elected official

Resident and government employee

Clerk

City Manager

local government employee

Neighboring County Employee

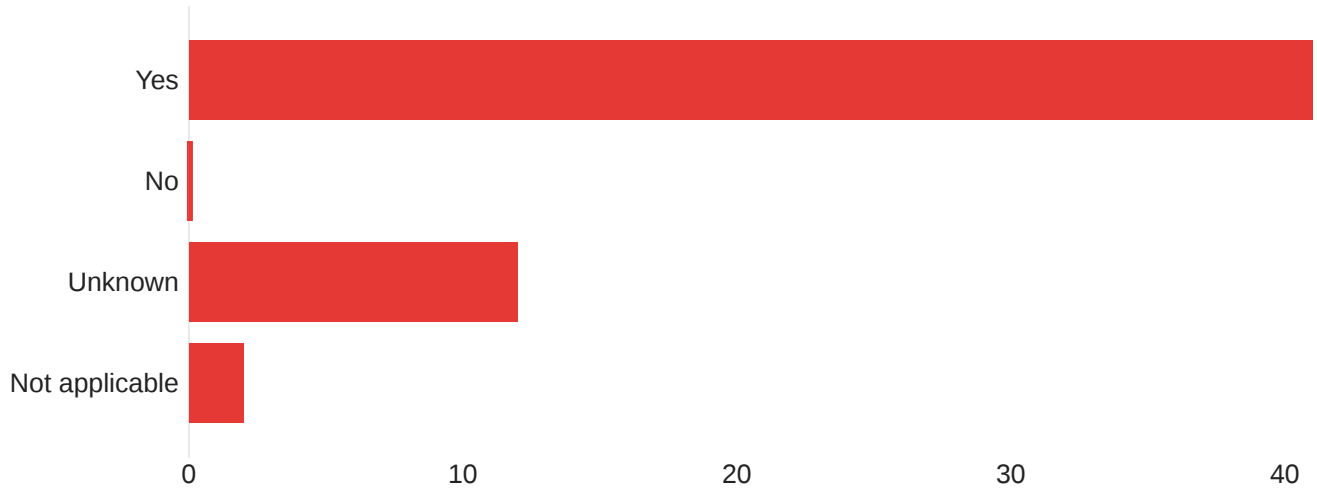
local government employee

Q4 - Are you familiar with the county's Natural Hazard Mitigation Plan?



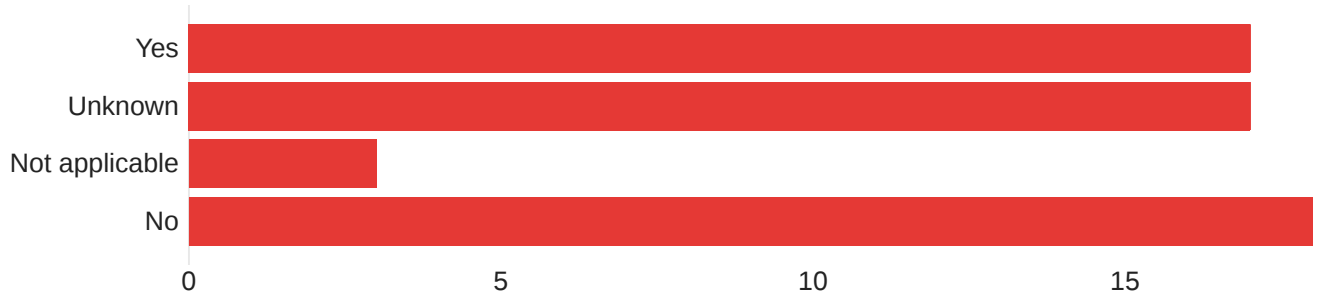
Field	Choice Count
Yes	22
No	33
Total	55

Q5 - Does the community you represent have an adopted Master Plan?



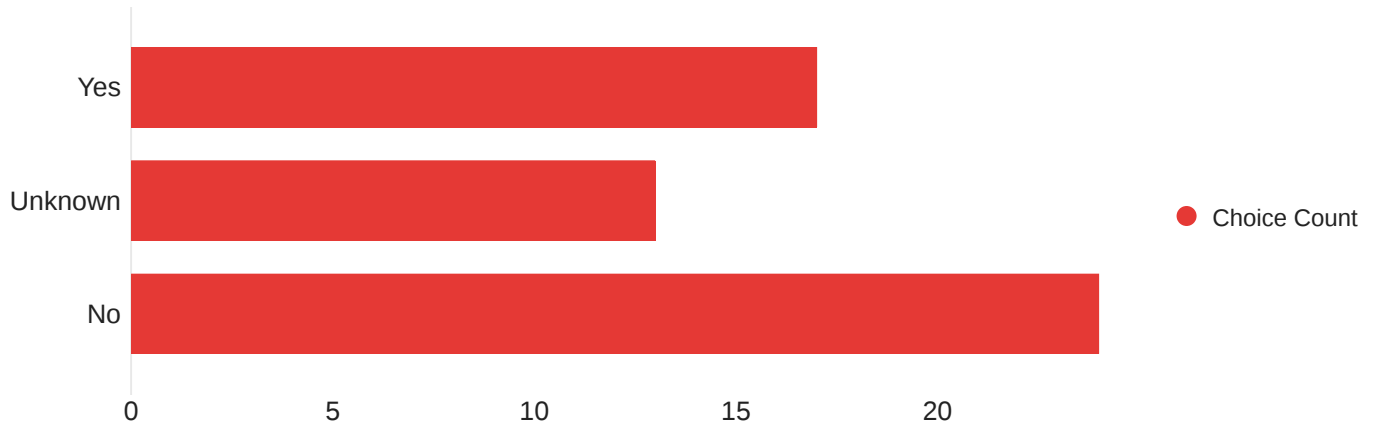
Field	Choice Count
Yes	41
No	0
Unknown	12
Not applicable	2
Total	55

Q6 - Does the community you represent have an adopted Capital Improvements Plan?



Field	Choice Count
Yes	17
Unknown	17
Not applicable	3
No	18
Total	55

Q7 - Has the community you represent experienced a significant natural hazard event within the last ten years?



Field	Choice Count
Yes	17
Unknown	13
No	24
Total	54

Q8 - If so, what was the nature of the event?

If so, what was the nature of the event?

TORNADO -STRAIGHT LINE WINDS - WINTER WEATHER

Blizzard

Covid-19

BOYNE CITY Tornado in recent past

Wind Storm

High water erosion

flooding

High Lake Michigan levels and high winds combined for shore erosion and damage to homes/property.

Heavy snowfall, strong winds

Extreme Winter Weather

Power Outage

Ice storm,wind.

High Water, Erosion

What is significant? We had some houses that were being threatened by high water, storm driven events.

High water/flooding/erosion

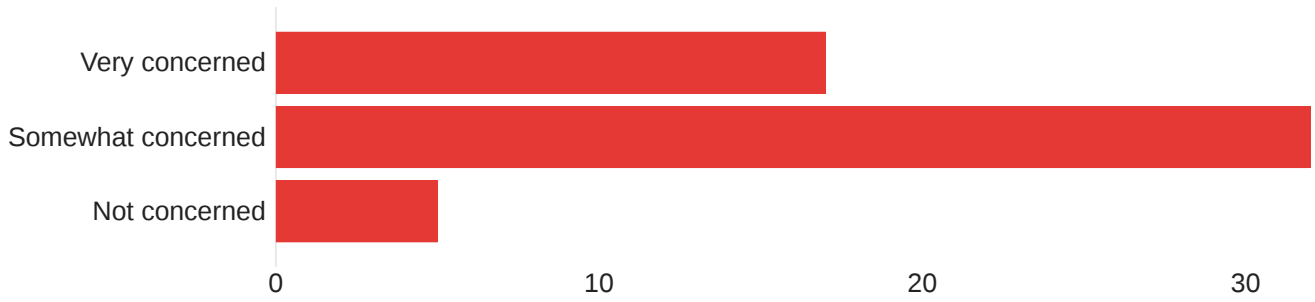
Flooding of public areas, parks and infrastructure. Over capacity of wastewater system with stormwater

N/A

Tornado and Straight Line Winds

High wind storms- Dec 2021; High water levels 2018-2019

Q9 - How concerned are you about future natural hazard events impacting your community?



Field	Choice Count
Very concerned	17
Somewhat concerned	32
Not concerned	5
Total	54

Q10 - What type of natural hazard events are likely to have the largest impact of your community (i.e. flood, winter storm, thunderstorm/wind, drought, illness outbreak, etc.)?

What type of natural hazard events are likely to have the largest impact of your community (i.e. flood, winter storm, thunderstorm/wind, drought, illness outbreak, etc.)?

Winter storm and flooding

Winter Storm/Wind/Tornado

WINTER STORMS WINDS TORNADO

Wind, no matter what season, shore erosion due to waves has no season here.

winter storm

Flood, winter storm and wind storms

winter storm and thunderstorms & winds

Wind, drought, winter storm

Flooding, shoreline erosion, illness outbreak, winds, soil contamination, extreme overuse of gas powered boats and HUGE races on the lake, waterfowl habitat being disturbed, trash dumped off shore and boats into the lake...

Floods and Winter Storms

Winter storm tornado

winter storm, thunderstorm/wind

winter storm, illness outbreak

Illness outbreak, Erosion issues at lakeshores, power outages due to high winds

All

Winter storm

flood, winter storm, thunderstorm/wind, drought

High Winds, high water, winter storms, illness outbreak

all of the above

High winds and/or high water causing damage and/or long term lost of power during cold periods

winter storms/power outages, wind, infectious disease outbreak

Winter Storm or extended power outage

Winter storm, power outage, wind storm, water level issues

Radiation Leak Big Rock caused by lightening strike

Dam washing out, winter storm

flood, winter storm, wind, illness

Illness outbreak

Flood, winter storm, illness outbreak.

winter storm

High Water, Winter Storm, Thunderstorm/Wind, Illness Outbreak, Fire, Flooding

Flooding, wind and drought

all of the above

High water-wind driven events, forest fires, ice storms impacting power lines

Illness outbreak or wind storm

wind, tornado, winter storm

flood, high lake levels/groundwater, increased storms

Flooding, winter storms, high winds, power outages

flood/wind/thunderstorm/winter storm

Winter storm and thunderstorms and high winds

damage caused by a large wind event

winter storm or wind

Flood, winter storm

winter storm, thunderstorm/wind/hail

drought, lakeside erosion, straightline winds

Flood and Wind Storms

winter storm, thunder/wind Storms, soil erosion

Q11 - Does your community have concerns about infrastructure (dams, bridges, utilities, etc.) withstanding a natural hazard event in the future? Please describe.

Does your community have concerns about infrastructure (dams, bridges, utilities, etc.) withstanding a natural hazard event in the future? Please describe.

Yes

Dam failure and Mackinaw Bridge

N/A

I do not have that information.

Water waste, water supply

Our bridge is very old and in need of replacement so a hazard event could have a high impact

possible bridge or utilities

Our Community does, our "management" in Boyne City doesn't - their actions are contradictory to their words, and our residents are taking a back seat to KEEPING up and taking care of our infrastructure...

No

shoreline infrastructure damage from soil erosion due to high lake levels

bridge,dams

Dam situation on Deer Lake, power outages due to high winds/storms

unknown

utility issues would most affect our residents

Utilities - power outages

The Township has a water system that should be able to withstand any natural hazard events

Utility damage with power lines down and/or lack of Generator operations during cold periods for buried power lines

Yes, they are currently evaluating dams, culverts, and bridges.

utilities are above ground wires that are open to damage by wind, trees downed, etc.

Draw Bridge common outages / Power

dams, bridge on M 75

dams

Electric outages

Yes. Dams, Charlevoix Bridge, utilities, erosion from high lake levels.

Concerns for our island utilities in the providing of and repair times, concern for our water/sewer infrastructure in the event of heavy precipitation or freezing

Yes, fragile road beds and cultural assets.

Unknown

utilities, mainly water and sewer services

Infrastructure's could use some help

No

No

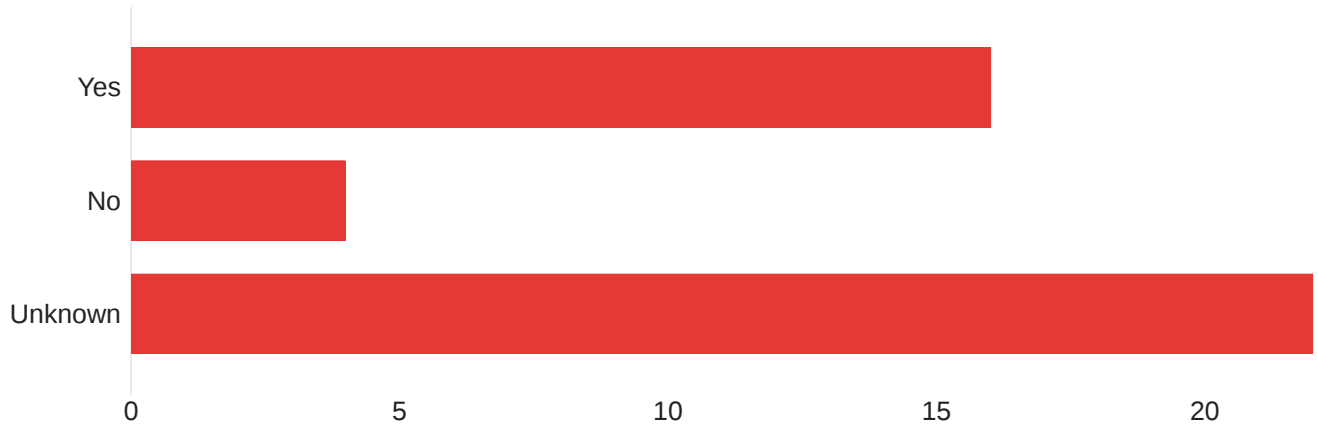
Water infrastructure can be challenging in extreme cold

Yes. A local road tax doesn't address the road and culvert needs throughout the Township

Yes - improvements are always underway or in the planning process to protect infrastructure

Dams (Boyne Mt. and Boyne Falls m-75); phone/internet service on Beaver Island; high water levels in the next 15-20yrs could be worse than what area had in the past couple years.

Q12 - Has your community considered mitigation strategies for potential or current hazards?



Field	Choice Count
Yes	16
No	4
Unknown	22
Total	42

Q13 - If so, please identify potential strategies you would like to explore in the future.

If so, please identify potential strategies you would like to explore in the future.

N/A

No - not that i'm aware of but I could be wrong.

Updates to power grid

Shoreline erosion

Island Emergency Management team that can facilitate public response to emergencies

The Beaver Island Emergency Operations Plan needs updating, assistance in this regard would be helpful. We have identified recent power issues as part of a long term blackout) and need for warming centers, so need assistance to determine public and personal generator needs to make warming centers work or if any reliance on the GLE island-based generator is more valuable.

Bridge Outages and Big Rock Planning Drills Yearly

unknown what to do to prevent event

upgraded power grid,back up power.

Evacuation plans, CIP,

Identifying high risk erosion areas where building codes should be strengthened. Usually it is buyer beware.

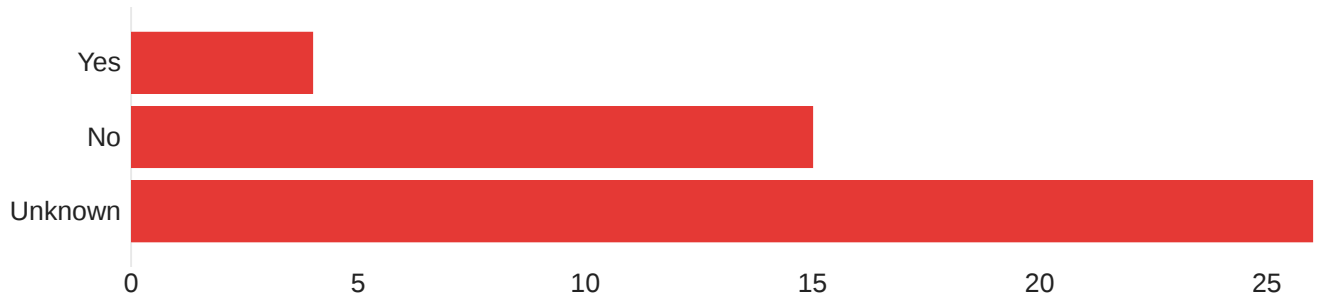
The Watershed Council has encourage climate mitigation strategies for coastal communities.

Collaborative efforts between jurisdictions, shared services, emergency response with private utility companies

Revising infrastructure as possible

Culvert Improvements and utilization of the new County Hyrdology Model

Q14 - Has your community requested assistance for mitigation projects in the past? Whether from FEMA or other partner agencies.



Field	Choice Count
Yes	4
No	15
Unknown	26
Total	45

Q15 - If so, was your request granted and what type of project did the request include?

If so, was your request granted and what type of project did the request include?

Floodplain Management Provisions - FEMA

Q16 - Is there any additional information you would like us to consider as we update the County's Natural Hazard Mitigation Plan?

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

Not at this time.

Placing power lines underground....

Yes - ANY mitigation plan needs to be made VERY known - as if it were an election time - posted, advertising, snail mail, television, public notice postings...

Flooding in Six Mile Lake

The Island needs local team to aid in emergencies, especially when off-island emergency personnel are not available and/or power, internet and phone services are disrupted

no

Our current master plan is being updated. A review in regard to Hazard Mitigation is warranted including the shoreline protection measures and harbor operations. As mentioned, please assist with updating the emergency operation plan (which covers resources and accessibility)..

Power outage for an island community is a very serious issue with many people losing a whole winter's food supply in the freezer and refrigerator

Yup staffing levels FIRE POLICE and EMS / Lack of

Not at this time

I think we had a practice on this once. Always good to be prepared. Glad we are updating.

keep island logistics in mind

Nothing I can think of.

Q17 - Would you like to receive updates on the plan update? Please share your contact information so we may include you on future invitations.

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zoning@norwoodtp.org

yes

yes

wilsonclerk49712@gmail.com

v yes email address vern@melrosetwp.org

thistledeu4me@gmail.com / Mary Shaffer, 402 Groveland St, Boyne City, 49712

supervisor@boynevalleytp.org

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sammie.dyal@gtb-nsn.gov

pgrassmick@gmail.com

larrylevengood@yahoo.com

jenniferm@watershedcouncil.org

evelnetwpclerk@gmail.com

charclerk@chartwp.com

Yes

Yes

Yes

Sienna Wenz- Charlevoix County Emergency Manager

Not yet.

Mary Millington, email address (r as in Robert) rmillington9094@charter.net

Jeremy Runstrom/Cheboygan County Emergency Management/ jrunstrom@cheboygancounty.net

I would like our Townships to share this information on websites and forums to get to the most people

I am receiving updates from Sienna Wenz including invitations to the LEPC meetings. I will be reviewing the 11/21/22 zoom meeting recording this weekend.

Director@beaverislandhistory.org