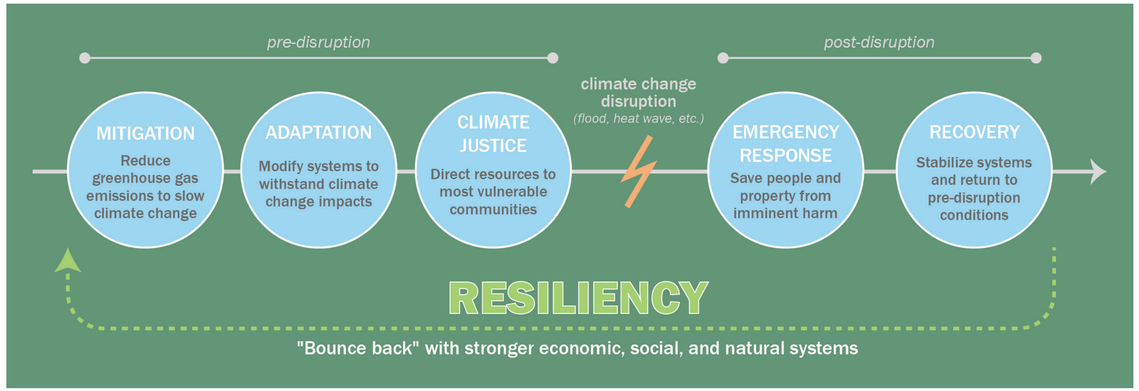
INTRODUCTION

WHAT IS RESILIENCY?

Resilience is the ability for a community and its ecosystems to adapt and withstand impacts from climate change including extreme weather and other disruptive events; to recover quickly and bounce back across social, economic, and ecological systems; to continue functioning in the aftermath of a disaster; and adapt to rapidly changing environmental conditions and forces.

- Resilient NY (resilient.ny.gov)



PURPOSE OF A RESILIENCY PLAN

- Identify climate-related risks and vulnerabilities affecting the county
- Evaluate how those risks may impact people, infrastructure, natural resources, and the local economy
- Develop practical resilience and adaptation strategies to reduce long-term climate impacts
- Support coordinated planning and decision-making among local, regional, and state partners
- Promote sustainable actions that strengthen community resilience for future conditions

PROJECT BACKGROUND

Chautauqua County has received funding from the New York State Department of State (NYSDOS) through Title 3 of the Environmental Protection Fund to develop the Chautauqua County Countywide Resiliency Plan (CRP).

The CRP is a voluntary planning tool that helps communities participate in the State's Smart Growth Countywide Resiliency Program.

- It identifies key climate change risks and vulnerabilities within the County and establishes strategies to help communities "bounce back" from natural hazard events (e.g. floods, heat waves).
- The CRP will outline practical steps for the long-term protection of social networks, economic hubs, critical infrastructure, and natural assets that are essential to maintain community stability and quality of life during the recovery phase following a hazard event.

KEY PLAYERS

CORE TEAM

Chautauqua County Dept. of Planning & Development

- Rebecca Wurster
- Courtney Domst
- Emma Cook

NYS DEPARTMENT OF STATE

- Karen Catcher

RESILIENCY ADVISORY COMMITTEE (RAC)

- Dave McCoy, Chq Co Dept. of Planning & Development
- Jessica Wuerstle, Chq Co Environmental Health Division
- Noel Guttman, Chq Co Office of Emergency Services
- Vince DeJoy, City of Dunkirk
- Jason Kulaszewski, City of Jamestown
- Whitney Gleason, Everwild Land Trust
- Cassandra Pinkoski, Chq Co Soil & Water Conservation District

CONSULTANT TEAM

- Barton & Loguidice
- 4ward Planning

TIMELINE

Project Kick-Off
Spring 2026

Community Outreach & Engagement Plan
Spring 2026

Vision Statement & County Profile/Inventory Assets
Summer 2026
- In-Person Community Visioning Workshop
- Online Quick Poll

Strategies, Recommendations, & Opportunities
Fall 2026
- Community-Wide Survey
- Online Interactive Map

Identify Projects & Implementation Actions
Winter 2026-2027
- In-Person Open House
- Online Budgeting Tool

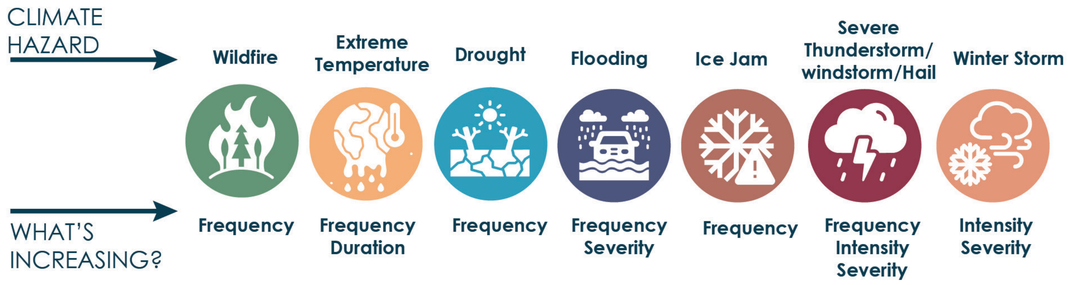
Draft Resiliency Plan
Winter 2026-2027
- Hybrid Public Meeting

Final Countywide Resiliency Plan
Spring 2027

CLIMATE PROFILE

Chautauqua County's Hazard Mitigation Plan identifies hazards of concern based on their potential extent, onset speed, impact, and frequency within the County. As shown in the table below, each hazard is assigned an overall vulnerability score and corresponding jurisdiction rank, which together determine its priority classification of high or moderate. Six hazards - Severe Thunderstorm/Windstorm/Hail, Severe Winter Storm, Flood, Ice Jam, Wildfire, and Extreme Temperatures, rank as high priority, reflecting their greater likelihood of occurrence and potential to cause significant damage and injury within the County. Given their elevated risk profile, this climate profile focuses predominantly on these high-priority hazards, examining how a changing climate may influence their frequency, severity, and impact on Chautauqua County's communities and infrastructure in the coming decades.

CLIMATE CHANGE IMPACTS IN CHAUTAUQUA COUNTY



CHAUTAUQUA COUNTY HAZARD VULNERABILITY RANKING

(from Hazard Mitigation Plan)

Rank		Priority	Overall Score and Vulnerability
#1	Severe Thunderstorm/ Windstorm/Hail	High	10
#2	Severe Winter Storm	High	10
#3	Flood	High	10
#4	Ice Jam	High	9
#5	Wildfire	High	9
#6	Extreme Temperatures	High	9
#7	Ice Storm	Moderate	8
#8	Tornado	Moderate	8
#9	Drought	Moderate	8
#10	Earthquake	Moderate	8
#11	Landslide	Moderate	6

CLIMATE PROJECTIONS FOR CHAUTAUQUA COUNTY

Great Lakes Region, Fredonia Station

Mean Annual Temperature*

Baseline	By 2050s	By 2080s
47.8˚ F	+4.7°F – 6.5°F	+6.1°F – 10.5°F

Days Over 90˚F

Baseline	By 2050s	By 2080s
2 days	14-30 days	23-61 days

Days Below 32˚F

Baseline	By 2050s	By 2080s
117days	63-94 days	25 -73 days

Heat Waves Per Year

Baseline	By 2050s	By 2080s
0	2-4	3-8

Avg Heat Wave Length

Baseline	By 2050s	By 2080s
0 days	4-5 days	4-6 days

Mean Annual Precipitation Change*

Baseline	By 2050s	By 2080s
40.3 in.	+2% to 10%	+6% to 13%

Note:
1. ** Based on average of all Great Lakes Stations.*
2. *Values based on the 25th and 75th percentile*
3. *Data source: Stevens, A., & Lamie, C., Eds. (2024). New York State Climate Impacts Assessment: Understanding and preparing for our changing climate. https://nysclimateimpacts.org*

KEY TAKEAWAYS

Frequent and widespread storms make wind, hail, and heavy rain a recurring threat to buildings, trees, utilities, and transportation.

Lake-effect snow and winter storms regularly disrupt mobility, isolate communities, and strain emergency response.

Extreme heat and cold both pose risks, with older adults and inland areas especially vulnerable.

Flash flooding and lakeshore flooding are major risks, especially near waterways and along the Lake Erie shoreline.

Drought has historically been a lower-frequency hazard; however, looking forward the County needs to consider this hazard's implications for drinking water, agriculture, and the County's lake system.

VISION STATEMENT

Help Shape the Community's Vision!

Read the vision statement options and place a sticker dot beside the statement you believe best reflects the community's desired future.

Equity-First, Community-Centered

Chautauqua County will build a resilient future by prioritizing the safety, well-being, and long-term stability of its most vulnerable residents, while ensuring all communities – including residents, workers, and visitors alike – are prepared for and protected from flooding, severe weather, and environmental change. Through proactive planning, equitable investment, and strong communication systems, the County will safeguard critical resources, strengthen local economies, and create a connected, adaptive system that supports both present and future generations.

Infrastructure & Environment Focus

Chautauqua County will foster a resilient future by strengthening and connecting its vital water, agricultural, infrastructure, and communication systems to effectively respond to flooding, climate variability, and emerging threats. By focusing on key geographic areas such as headwaters, agricultural lands, and vulnerable communities, the County will implement coordinated short- and long-term strategies that reduce risk, enhance sustainability, and ensure reliable services for residents, businesses, and visitors.

Future-Oriented & Actionable

Chautauqua County will lead with a proactive, forward-looking approach to resilience, combining immediate, measurable actions with long-term investments to prepare for future challenges. By improving communications systems, protecting vital natural and economic assets, and aligning community priorities across generations, the County will build a culture of preparedness and adaptability that reduces risk, supports sustainable growth, and ensures no community is left unprotected.

VISION STATEMENT

What's Missing from the Vision Statements?

Share your ideas! Write down anything you think is missing from the vision statements on a sticky note and place it in the space provided.

KEY ISSUES & OPPORTUNITIES

What most concerns you or your community about these hazards?

Severe Thunderstorm/Windstorm/Hail



Source: https://inside.nssl.noaa.gov/nsslnews/2026/04/close-encounters-lift-campaign-seeks-unprecedented-tornado-and-hail-data/

Severe Winter Storm



Source: https://www.weather.gov/images/iln/events/20100205/photo17.jpg

Flood/Ice Jam



Source: https://www.usgs.gov/media/images/westhope-comparison

Wildfire

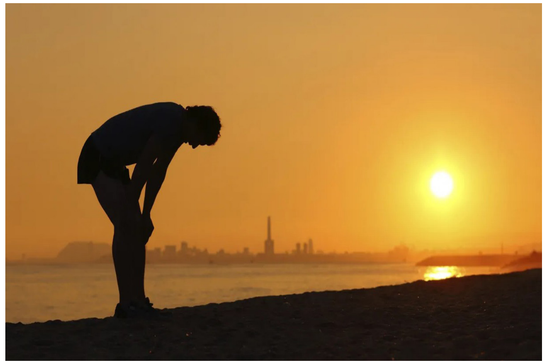


Source: https://www.fs.usda.gov/about-agency/features/step-step-forests-future

KEY ISSUES & OPPORTUNITIES

What most concerns you or your community about these hazards?

Extreme Heat



Source: https://www.noaa.gov/stories/excessive-heat-silent-killer

Extreme Cold



Source: https://www.weather.gov/gsp/15dec2005icestorm

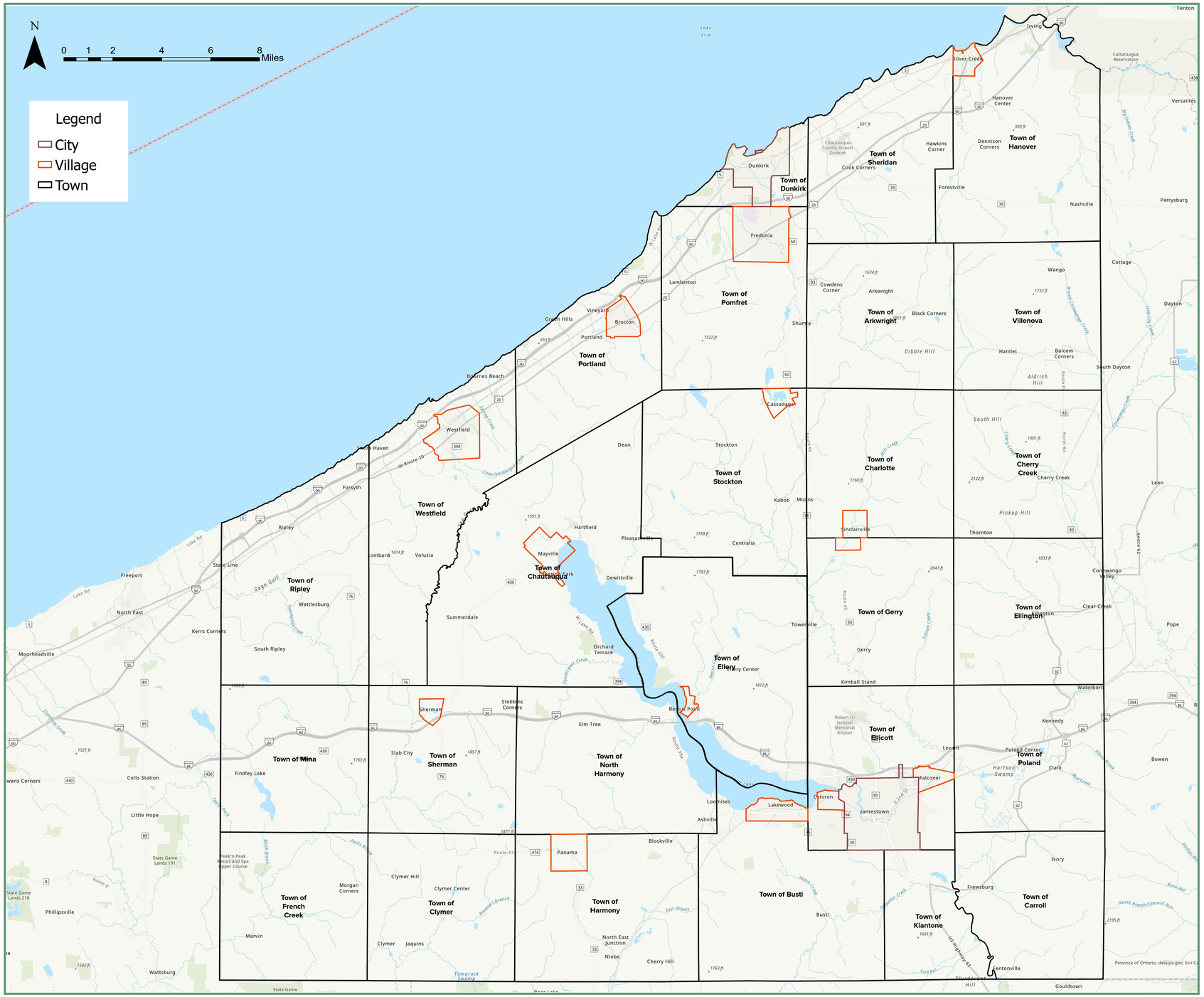
Drought



Source: https://content.govdelivery.com/accounts/USDAFARMERS/bulletins/3e86150

Other

HAZARD MAPPING



Where have you or your community experienced these natural hazard events? Place a dot on the map.

- Pink = Severe Thunderstorm/Wind Storm/ Hail
- Purple = Severe Winter Storm
- Light Blue = Flood
- Green = Ice Jam
- Orange = Wildfire
- Red = Extreme Heat
- Dark Blue = Extreme Cold
- Yellow = Drought
- Black = Other