

Aurora Comprehensive Plan

Climate Vulnerability Assessment

I. Introduction

Human-made emissions of carbon dioxide and other greenhouse gases are causing warming that is not typical of the historical record. The Town of Aurora has begun taking steps in addressing climate change, which will affect all areas of the world, even towns like Aurora. As part of its Comprehensive Plan update, on which work began in late 2024, the Town has initiated the development of a Climate Vulnerability Assessment. This document will fulfill the requirements of and outline for Section PE7 Action: Climate Vulnerability Assessment, set forth by the New York State Climate Smart Communities Program.

The Climate Smart Communities (CSC) Program is an interagency initiative of New York State to support local efforts to meet the economic, social, and environmental challenges of climate change. Municipalities can adopt the CSC pledge and submit a variety of actions for CSC certification. The Town of Aurora unanimously passed the CSC pledge on September 26th, 2022. A task force was approved in October 2023 to implement the actions necessary for obtaining certification status with the NYS Climate Smart Communities Program. The Town was awarded Bronze-level Certification the same month and the task force continues to work towards achieving Silver-level Certification, which is the highest level of certification available.

The purpose of the Climate Vulnerability Assessment is to assist the Town in analyzing and developing responses for and resilience against extreme weather events to come, the frequency and intensity of which are only projected to increase due to climate change. While the Town does have a disaster advisory committee, it has not actively met for several years and lacks the resources to accomplish its duties. The assessment will begin with a review of relevant studies, then climate hazards and physical vulnerabilities will be identified and described. Additionally, a social vulnerability assessment will be conducted, and community engagement feedback will be documented. The assessment will conclude with a summary of findings, paths forward for the Town of Aurora and its community organizations and stakeholders, and a timeline to reassess vulnerabilities and update the assessment report.

II. Relevant Studies

A. Erie County Multi-Hazard Mitigation Plan¹

First developed and adopted in 2007, Erie County recently updated their Multi-Hazard Mitigation Plan (ECMHMP) in 2022. This plan aims to reduce the impacts of natural disasters and increase the resiliency of Erie County communities. Components of the plan include a countywide profile, a risk assessment for all potential hazards, and identified strategies to implement to reduce the impacts of natural disasters. Hazards identified as high-risk in the Town of Aurora include flooding and utility failure. Vulnerabilities include increasing occurrences of severe summer weather (such as thunderstorms and tornado watches) which cause utility failure; extreme winter weather; flooding along Tannery Brook; the school system not participating in federal emergency management guidance; water shortages during hazard events; a lack of adequate backup power for the Buffalo Road and Emery Road temporary emergency housing locations; and frequent flooding events which damage residential properties.

B. Erie County Community Climate Action Plan and Climate Vulnerability Assessment

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The Erie County Community Climate Action Plan was developed in 2023. The plan aims to serve as a high-level roadmap to help guide and prioritize the County's climate actions. As part of the Erie County Climate Action Plan, a Climate Vulnerability Assessment was conducted for the entirety of Erie County. The assessment identified the county's climate threats and hazards and examined the county's ability to handle the hazards at the county level. For the county, four hazard categories were identified as most high-risk: temperature, particularly extreme heat; precipitation, particularly local and downstream flooding; wind, particularly shifting wind patterns and high thunderstorm winds; and biological threats, particularly invasive species and vector-borne diseases.

C. Town of Aurora Climate Smart Community Task Force Website

The Town of Aurora's Climate Smart Community Task Force maintains a very in-depth website providing climate change awareness and education materials, challenges and opportunities being faced by the Town of Aurora regarding climate change, and information on the task force itself, including meeting minutes and CSC certification information. For example, the task force identifies flooding as a critical issue. Challenges relating to flooding include increasing flood occurrences, rising sea levels, the impact of floods on buildings and critical facilities, and more. Opportunities include critical culvert/bridge repairs, protection of the Town's water resources by the Buffalo Niagara Waterkeeper, and shoreline restoration projects which have been successful.

D. NYS ClimAID Report

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ClimAID: the Integrated Assessment for Effective Climate Change Adaptation Strategies in New York State was undertaken by the New York State Energy Research and Development Agency (NYSERDA) in 2011 as a state-level assessment of climate change impacts, specifically designed to assist in the development of adaptation strategies. Topics addressed in the report include water resources, coastal zones, ecosystems, agriculture, energy, transportation, telecommunications, and public health. For Western New York, the report predicts a significant increase in average annual temperatures and precipitation levels up to the 2080s. The greatest threats to the region identified by the report are increased summer drought risk and high-value crops needing increasing irrigation, which aligns with the high agricultural productivity of Western New York.

III. Identified Climate Hazard(s)

A. Previously Identified Climate Hazards Summary

The Town of Aurora Climate Smart Communities Task Force has identified eight environmental spheres that specifically affect the Town, each with challenges and opportunities laid out. These include extreme storm events, extreme temperatures, flooding, water and soil, agriculture disruption, invasive species, climate migration, and social justice.

This report will focus on the flooding hazard within the Town of Aurora due to its being identified as a high-risk hazard by the Erie County Multi-Hazard Mitigation Plan (ECMHMP) and because of the significance of the watershed to the Town. Hazard concerns were ranked in the ECMHMP based on "an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future conditions... each municipality ranked the degree of risk to each hazard as it pertains to their community."

i. Extreme Storm Events

Extreme storm events include floods, blizzards, droughts, wildfires, and heatwaves. While these events are very different in terms of their physical impacts and conditions, they are all influenced by the water cycle, which itself is heavily affected by climate change – specifically, trends in temperature. While “climate change” does often refer to the same thing as “global warming,” i.e., an observable increase in average temperature over time, the term “global warming” often gives the impression that the effects of climate change will always be *warm*, such as increased wildfires and heatwaves. However, the water cycle occurs often over years or decades, as well as within seasons or months.

Snowfall is not expected to decrease in Erie County, but winter storms are anticipated to be shorter but more intense. Precipitation is expected to increase by up to 15% in the region, with more precipitation in the fall and summer than the current rates. Additionally, due to the proximity to Lake Erie, Erie County is located within an “extreme wind hazard area”. Wind speeds are projected to increase during the winter and summer with increases in the temperature. Wind direction is shifting to more northeasterly winds, which will likely increase damage to infrastructure, houses, and trees. Off-season storms are also expected to increase. Since the year 1990, the frequency of tornadoes has been increasing in the area as well. Significant impacts to substrate (pavement, asphalt, etc.) and agricultural soils are expected due to heavier precipitation (erosion). Additionally, the cycle of freezing and thawing can potentially create a substantial loss of crops, soil quality, and prime farmland.

ii. Extreme Temperatures

Erie County and the Town of Aurora are and will continue to be exposed to extreme temperatures, both hot and cold. Extreme temperature events will most affect certain groups of people:

- The elderly, who are less able to withstand extreme temperatures due to health conditions and, more often than younger people, lack access to emergency shelters;
- Infants and children up to 4 years of age;
- People with chronic medical conditions;
- Low-income residents that do not have access to proper heating and cooling; and,
- The general public who may work or exercise during extreme temperature events.

Extreme cold poses health hazards such as wind chill, frostbite, and hypothermia. Power outages are also common during extreme cold events, which are particularly dangerous for those without proper shelter and/or are stranded or trapped in their car. Older buildings and mobile homes are also more vulnerable to extreme cold. Transportation issues are one of the most obvious issues related to extreme cold. Additionally, extreme cold and ice can significantly impact vegetation, in particular, trees and agricultural crops, which can die off or have a substantially decreased yield for farmers.

Extreme heat events are expected to increase in Erie County and the Town of Aurora in the coming decades. This poses a particular challenge as the municipalities in the Western New York region are more experienced in handling cold weather events. Most heat-related deaths occur from long exposure to extreme heat with little or no air conditioning. Town of Aurora's particular vulnerabilities to extreme heat include isolation for the elderly living in rural areas, socioeconomic vulnerability, and urban heat island effects within the Village of East Aurora. Furthermore, extreme heat can have an impact on buildings in terms of increased energy demand for cooling and insufficient capabilities of mobile homes to withstand heat. Utilities can sometimes fail during extreme heat due to intense usage of air conditioners.

iii. Water and Soil

As mentioned in the sections on extreme storm events and extreme temperatures, the water and soil of Erie County and the Town of Aurora will be heavily affected by climate change. Water and soil are crucial assets to any community because they affect so many other elements of the community, from agriculture to infrastructure.

According to the Town of Aurora CSC website, climate change does and will continue to affect water quality in various ways, including:

- Flooding: Runoff from pesticides, animal waste, fertilizers, and more could be picked up by water during flooding events;
- Algal blooms: Higher surface water temperatures and increased nutrient loading from agricultural runoff may increase algal blooms, which deoxygenate water, produce toxins, and damage other organisms and their habitats, thus taking over entire aquatic ecosystems;
- Winter snowpack: The loss of winter snowpack due to premature melting and/or lack of snowfall will reduce groundwater and runoff throughout the spring and summer, resulting in lowering water levels in water bodies during the growing season; and,
- Drought: As supply of water decreases, concentration of contaminants increases.

Similarly, soil can and will be affected by climate change as well.

- Soil erosion: More frequent extreme weather events will cause soil erosion by causing precipitation levels that cannot be absorbed by the soil quickly. Water flows across the surface and takes a layer of soil with it – this will potentially affect the steep terrains and ravines that make up much of Aurora's rural area the most;
- Soil organic carbon: Loss of soil carbon causes declines in nutrient availability, biological activity, physical structure, water-holding capacity, aeration, and agricultural productivity;
- Soil nutrients: Extreme rain events can reduce soil nutrient levels; and
- Acidity and alkalinity: An increase in precipitation and moisture is expected to increase soil acidity, which will affect natural ecosystems and agricultural productivity.

iv. Agricultural Productivity

The agriculture industry and a rural lifestyle are both key elements of the Town of Aurora that residents seek to preserve. However, climate change projections indicate that average annual temperatures could increase by up to 10°F by the 2080s. Although it might at first glance sound like a benefit for farmers to have an extended growing season, other side effects of climate change can and do impact agriculture negatively.

Warmer, longer growing seasons mean an increase in irrigation, slower plant growth, and greater potential for diseases and invasive species to flourish on agricultural crops. Bacteria, fungi, insects, and weeds tend to take advantage of warmer weather and often thrive in increased moisture. A longer season and hotter weather could also affect pollinators, such as bees and butterflies, and their lifecycles, which are generally matched with the timing of crop plantings – a crucial step for agricultural productivity, especially fruits and vegetables. Additionally, farm workers and livestock animals will be impacted by increased heat both in terms of physical effects but also by increased prevalence of pests (mosquitoes, ticks, etc.). For both human workers and livestock animals, resources will need to be increasingly dedicated to cooling down, namely, water availability and fans/air conditioning.

The Town of Aurora and Erie County at large will be affected by warming weather trends, as the area is quite agriculturally productive – maple syrup, Christmas trees, apiaries, and autumn tree tourism are identified as Aurora's largest agricultural markets. Local agriculture will also be affected by extreme cold, which may cause crop damage or kill crops entirely; early spring warming can also cause premature budding which can kill crops if it is followed by a freeze.

v. Invasive Species

As mentioned above, invasive species are likely to become more of an issue as climate changes. As temperature and precipitation increase, species niches change, food chains shift, habitats move, and entire ecosystems are altered in a domino effect. Invasive species can cause significant damage to agricultural crops and even entire ecosystems for various reasons: lack of a natural check on the population such as a predator; they may fill a species niche that native species cannot, such as early or late season growth; they may thrive in a habitat that humans have altered; and, invasive species tend to have a high reproduction rate, disperse rapidly and effectively, and/or are able to tolerate many different environmental conditions. Invasive species can be plants, animals, insects, bacteria, and fungi.

Importantly, invasive species can occasionally be vectors for diseases (both human and animal). Vector-borne diseases require infrastructure to prevent, treat, and eradicate, especially diseases that are new to a population that would have no history with understanding them. In Erie County, the deer tick, which carries Lyme disease, is already present, but may be replaced in the next few decades with the Asian longhorned tick, which causes the always-fatal East Coast Fever and other parasitic diseases in cattle.

Invasive plants choke out native species and reduce biodiversity in wetlands and forests. In the Town of Aurora, several species are already present: Japanese knotweed and Japanese stiltgrass (both associated with aquatic areas), Tartarian honeysuckle, multiflora rose, and common buckthorn. Tree of Heaven is a popular residential landscape tree which is the preferred host plant to the devastating spotted lanternfly. Other invasive species that are present include the Norway maple, giant hogweed, wild parsnip, and emerald ash borer. Hemlock wooly adelgid, box tree moth, spotted lanternfly, spotted wing drosophila, and European cherry fruit fly; and, beech bark disease and beech leaf disease, both caused by fungi.

vi. Climate Migration

Climate migration is the migration of peoples from areas of the world due to climate-change related environmental shifts to areas that are more environmentally hospitable. Among others, rising sea levels, droughts, and extreme heat are reasons why people have migrated, and will continue to migrate, to climate oasis areas. Climate migration is anticipated to only increase over the coming decades as climate change intensifies. The greater Buffalo region, as a substantially more climate-resilient and less vulnerable area than other parts of the world, can be expected to receive many of these migrants, including the Town of Aurora, at least in small part. Increased population can cause increased housing costs, increased development pressures, and possibly displace existing low and moderate-income residents.

vii. Social Justice

Related to climate migration, climate change has and will continue to affect social justice and deepen social inequalities. Climate oasis areas like the greater Buffalo region have the potential to experience substantial increases in property values, which can lead to gentrification. This displacement can cause or exacerbate other social vulnerabilities, particularly in the areas that are left behind in favor of areas with fewer climate vulnerabilities. The social vulnerability assessment done for Erie County reveals high

potential for social vulnerability near Buffalo's downtown, but also in rural areas, including the Town of Aurora. That said, the Town of Aurora also has extensive social support infrastructure, including social services, food and clothing pantries, affordable housing options, senior services, and more. These resources, whether publicly maintained or operated by non-profits, can be strengthened and broadened in the coming years to accommodate a larger, and more culturally diverse, population.

B. Flooding

i. Definition of Flooding

Flooding has been identified as the primary climate hazard for the Town of Aurora. Flooding is defined by the Federal Emergency Management Agency (FEMA), the agency also responsible for administering the National Flood Insurance Program (NFIP).

The risk of flooding in a particular area is defined in terms of the 100-year and 500-year floodplains. In river systems (which affect the Town of Aurora), as opposed to coastal systems, flooding is expressed in flow rate, which is then used to estimate the water elevation during a flood. A 100-year flood level has the probability to be reached or exceeded once per 100 years on average. In other words, the likelihood of the flood occurring has a 1 in 100 chance, or 1% probability, in any given year. The same goes for the 500-year flood, which has a 1 in 500 chance or 0.2% probability of occurring in any given year. The *floodplain* is the geographic area that is estimated to be affected by the 100-year or 500-year flood in any given year. Per the ECMHMP, the boundaries of floodplains can be altered as a result of changes in land use, the amount of impervious surface, improvements in technology for measuring topographic features, and the utilization of different hydrologic modeling techniques.

The 1% and 0.2% chances of a flood occurring in any given year do not mean that a flood in a particular area will only happen once every 100 or every 500 years. Variations always occur and the climate is affected by a myriad of other factors, including previous climate cycles. Within a 100-year floodplain, there is an approximately 26% chance of flooding within any given 30 consecutive years – the length of most mortgages in the United States.

The regulations of the NFIP are based on the 100-year flood. Residents of communities that participate in the NFIP are automatically eligible for the program. Further, any business or home with a government-backed mortgage that is in the 100-year floodplain is required by law to have flood insurance.

Floods are defined in a leveled system based on the use of hydrographs, which are measured by gages located throughout Erie County. Hydrographs show how a water level changes over time at a specific location. The following terms must be defined for clarification purposes:

- **Action Stage** - the stage which, when reached by a rising stream, lake, or reservoir, represents the level where the NWS or a partner/user needs to take some type of mitigation action in preparation for possible significant hydrologic activity.
- **Minor Flooding** - minimal or no property damage, but possibly some public threat.
- **Moderate Flooding** - some inundation of structures and roads near stream. Some evacuations of people and/or transfer of property to higher elevations.
- **Major Flooding** - extensive inundation of structures and roads. Significant evacuations of people and/or transfer of property to higher elevations.
- **Record Flooding** - flooding which equals or exceeds the highest stage or discharge at a given site during the period of record keeping.

ii. Risk of Flooding due to Climate Change

Per the Town of Aurora's Climate Smart Communities website:

"Throughout Erie County it's estimated that temperatures will increase by 3.0 °F to 5.5 °F by the 2050s and 4.5°F to 8.5 °F by the 2080s. Increasing air temperatures intensify the water cycle by increasing evaporation and precipitation. This can cause an increase in rain totals during events with longer dry periods in between those events. Precipitation totals are estimated to increase between 0 and 10% by the 2050s and 0 to 15% by the 2080s. The amount of rainfall in a 100-year event is projected to increase, while the number of years between such storms is projected to decrease."

According to the ClimAID report (2011), the projected increase in precipitation is expected to occur in heavy downpours (i.e., flash floods) rather than light rains. The increase in heavy downpour has and will continue to affect drinking water, increase the risk of riverine flooding, flood key transportation systems, and increase delays and hazards related to extreme weather events.

iii. National Flood Insurance Program Summary

The Town of Aurora has been a participating community in the NFIP since 1974. The NFIP Floodplain Administrator is the Town of Aurora's Code Enforcement Officer. Other Building Department personnel also help fulfill this role. The role of the NFIP Floodplain Administrator is to reduce the risk of flooding, such as by adopting and enforcing higher floodplain management standards than NFIP minimum requirements, maintaining rigorous enforcement, promoting open space, encouraging responsible building practices, promoting the purchase of flood insurance, and others. However, the ECMHMP states that the Town does not have any certified floodplain managers on staff. The Town also does not have "adequate resources to determine future damage due to climate change and would need occasional training in basic floodplain management." The Code Enforcement office does provide permit review as part of NFIP administration services.

While the Town is a participating community in the NFIP, they do not participate in the Community Rating System (CRS) program. The Community Rating System (CRS) is a voluntary incentive program that encourages community floodplain management practices that exceed the minimum requirements of the NFIP. In communities that participate in CRS, NFIP insurance rates are discounted to varying degrees depending on the amount of "credit points" earned by the community. Credit points can be earned by a series of actions, including map information services, hazard disclosures, publicly sharing flood protection information, providing flood protection assistance, stormwater management, floodplain management planning, building dams and levees, and many more.

According to the ECMHMP,

The town does not have any barriers to running an effective NFIP program and does not have any NFIP compliance violations. The town's most recent Community Assistance Visit was March 18, 2008 and had a CAC visit on 05/04/2005 and is due for another visit soon. The local law number for the local flood damage prevention ordinance is Chapter 68 of the Town Code and was last amended on April 8, 2019. Finally, the town does not exceed the floodplain requirements set by FEMA and does not have any other plans or ordinances that support the NFIP program.

The Town of Aurora does not maintain a list of properties which have been damaged in floods, nor does it maintain a list of property owners interested in flood mitigation. The Town has also not had any substantial damage determinations and has not mitigated any properties. According to the Town of Aurora, as described in the ECMHMP, Town officials consider the existing flood maps (created by FEMA) adequate to address the risk of the flood in the town.

iv. History of Flood Events

According to NOAA, the National Climatic Data Center, Erie County experienced 104 flood events between 1950 and 2020, including 10 lakeshore floods, 40 floods, and 54 flash floods. For Erie County (not specifically for the Town of Aurora), the estimate probability of experiencing a flash flood in any given year is 76%; for a non-flash flood, the probability is 56%. These probabilities will likely increase as the effects of climate change compound. Likewise, the direct and indirect impacts of floods are likely to increase, the latter of which include hazards such as infrastructure deterioration or failure; utility failures, power outages, water quality and supply concerns; and transportation delays, accidents, and inconveniences.

v. Flood Risk Zones

Flood zones are defined by FEMA using three different categories: A, V, and X, which are indicated on flood insurance rate map (FIRM) panels, the official flood zones maps issued by FEMA. Zones A and V indicate high-risk (within the 100-year floodplain). The difference between Zones A and V is that Zone V areas are coastal, potentially with high waves, and are at high risk of other extreme events, such as hurricanes. Zone A indicates low-lying land that is near lakes, ponds, and rivers, potentially with low waves. *Shaded* Zone X indicates low risk (within the 500-year floodplain; 0.2% to 0.99% chance), while *unshaded* Zone X indicates very low risk (less than 0.2% chance).

The ECMHMP identifies several flood-prone areas in the Town of Aurora. These include properties along Cazenovia Creek – both the East Branch, south of the Village of East Aurora, and the West Branch, south of West Falls. Tannery Brook is also a flood-prone area in the Town of Aurora, although most of the length of the brook is located within the Village of East Aurora. Per the ECMHMP, "Tannery Brook has continuously seen major flooding and properties along the waterbody have and continue to be vulnerable to frequent flooding around the creek, especially the nursing home...Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims."

According to the ECMHMP, the Town of Aurora includes 21,739 acres in total land area. Of the total land area, 645 acres, or 3.0%, are within the 1% annual chance flood zone (Zone A). There are 745 total acres within the 0.2% annual chance flood zone, or 3.4% of total land area. There are 0 acres in a Zone V area, since there are no coasts within the Town of Aurora.

IV. **Physical Vulnerability Assessment**

Physical vulnerability is the susceptibility of physical infrastructure to potential and actual climate hazards and extreme events. Climate change has and will continue to damage or disrupt physical infrastructure, and the Town of Aurora will need to plan to enhance the resiliency of these systems.

In the ECMHMP, hazards are identified and ranked based on a formula including the likelihood of occurrence for each hazard, its potential impacts on people, property, and the economy, the existing level of resiliency among the community, and projected environmental changes due to climate change. The following physical vulnerability assessment (PVA) will be a summary of the conclusions drawn in the ECMHMP and the Town of Aurora's Climate Smart Communities website.

For purposes of better understanding the PVA, the following terms must be defined:

- **Exposure** refers to whether an asset or system is located in an area that is likely to experience the effects of a climate change hazard now or in the future.
- **Sensitivity** refers to how an asset or system fares when exposed to a climate hazard.

- **Adaptive capacity** refers to the ability of an asset or system to adjust to actual or expected climate stresses.

Overall, the adaptive capacity of the Town of Aurora to flooding is considered medium: capacity may exist, but it is not used or could use some improvement.

A. Property/Building Damage

According to the ECMHMP, "exposure to the flood hazard includes those buildings located in the flood zone or those that are built downstream in other flood inundation areas such as dam failure inundation areas. Potential damage is the modeled loss that could occur to the exposed inventory measured by the structural and content replacement cost value."

In the Town of Aurora, there are 4,280 buildings with a total estimated replacement cost value (RCV) of nearly \$2.5 billion. There are approximately 18 buildings (0.4% of all buildings) within the 1% chance flood risk area (Zone A), with a total RCV of approximately \$13.5 million (0.5% of the total RCV). Additionally, there are 47 buildings in the 0.2% chance flood risk area (1.1% of all buildings), with a total RCV of approximately \$35.5 million (1.4% of the total RCV).

Using HAZUS software, a standardized loss estimation tool developed and used by FEMA for estimating risk from floods and other natural disasters, the ECMHMP estimates that there is a loss value of \$2.1 million due to the 100-year flood in the Town of Aurora, approximately 0.1% of the total RCV. Approximately \$520,000 of this would be residential building loss, \$645,000 would be commercial building loss, and the remainder, about \$893,000, would be all other building uses, including agricultural, industrial, religious, educational, and governmental.

B. Infrastructure Damage

According to the ECMHMP, "critical facilities" are typically defined as "facilities considered critical to the health and welfare of the population and that are especially important following a hazard.... critical facilities include essential facilities, transportation systems, lifeline utility systems, high-potential loss facilities, and hazardous material facilities." Grouped in with these assets are also police stations, fire stations, emergency medical services, schools/colleges, senior facilities, and medical facilities.

The ECMHMP identifies US Route 20A and New York State Route 240 as important transportation routes which run through the Town of Aurora. US Route 20A is a major roadway which may be impacted by a 1% annual flood chance event. Critical facilities and infrastructure, including major roadways, may be at risk of flooding, and this risk must be understood before an extreme event occurs.

Damage to or blockage of critical infrastructure, namely roadways, railroads, and utilities, can and will have serious consequences for residents in the event of a flood. These events may cause loss of communication, energy, heating/cooling, access to food, water, or shelter, access to medical services or supplies, lack of security and safety, lack of means of evacuation if necessary, and possibly even exposure to hazardous materials. These assets are described collectively as "lifelines" in the ECMHMP.

There are 95 critical facilities within the Town of Aurora and 81 lifelines. Of these, 17 critical facilities (17.9% of total) and 17 lifelines (21.0% of total) are located in Zone A flood hazard areas, the 1% annual chance flood areas.

The ECMHMP indicates that several specific issues relating to the critical facilities in the Town of Aurora have been identified by Town leadership:

- The town is not currently participating in the Federal Readiness and Emergency Management in Schools (REMS) program which would help schools conduct necessary mitigation measures and determine readiness around disasters.
- The town has had issues with water supply during hazard events and has had to rely on other municipalities for emergency water supply. With increasing extreme weather and drought, the town needs to first determine the areas that need potable water supply.
- The town does not have adequate backup power for the emergency shelter locations on Buffalo Road and Emery Road. These areas are not equipped with electricity and thus are not able to handle emergency shelter needs during disasters.

C. Economic Loss

Flood events can substantially affect the local and regional economy, disrupting or damaging the building stock, which creates tax loss, impacts to utilities and infrastructure; business infrastructure; impacts on tourism and events; and environmental impacts which can affect many different industries, particularly agriculture. Commercial and industrial buildings may need to be renovated or rebuilt, which disrupts their associated services.

The ECMHMP considers debris cleanup in the event of a flood to be a major expense and impact to the economy. Using HAZUS, the ECMHMP estimates the amount of structural debris that would be created during a flood event. Debris includes finishes, such as drywall and insulation; structural, such as wood and brick; and foundations, such as concrete slab and block, rebar, etc. During the 1% annual chance flood event, it is estimated that 296 tons of debris would be created in the Town of Aurora: 191 tons of finishes, 54 tons of structural debris, and 50 tons of foundation. This does not include non-structural debris or debris caused by winds and storms, such as trees, power lines, etc.

D. Public Health and Safety

Perhaps no impacts are as important as the direct health and safety impacts that floods can have on the public. While floods are dangerous and potentially disastrous, the ECMHMP states that the risk of injury and death is substantially lowered if proper warning, precautions, and communication takes place. Injury is most likely to occur when people try to cross flooded roadways. Dam failure can also take place, which can cause loss of life and property damage, however, these impacts are not discussed in the ECMHMP. Models to estimate the losses associated with public health and safety are not standardized by FEMA, so the best mitigation of these effects is proper education, prevention, and preparation, on the part of both the Town of Aurora and residents.

Secondary impacts of flooding and dam failure can be just as catastrophic as the flood itself. The increased moisture, standing water, and lack of ventilation can create a haven for mold to grow, posing a substantial threat to all building occupants, particularly children, expecting mothers, the elderly, and the immuno-compromised. Mold spores can create allergic reactions, asthma attacks, and exacerbate other respiratory issues. In the event of a flood, buildings must be properly cleaned and dried out to prevent mold growth; this is an expense that not all are aware of or able to afford.

During flood inundation, floodwaters themselves can become polluted, which can cause many other cascading effects. Pollutants may include sewage, feces, pesticides, fertilizers, oil, asbestos, rusting materials, and other hazardous materials. According to the ECMHMP, health risks associated with flood events also include unsafe food, contaminated drinking and washing water and poor sanitation, mosquitoes and other animals, carbon monoxide poisoning, secondary hazards associated with re-

entering and cleaning flooded structures, and the mental stress and fatigue associated with a significant and potentially traumatic natural disaster.

E. Land Use, Environment, and Agriculture

If the Town of Aurora continues to develop by building more structures, impervious surfaces will increase, thus potentially increasing the frequency and/or severity of flood events. Additionally, there are several dams within the Town of Aurora. Dam failure could cause substantial water pollution and debris issues, as described above. Contaminated water and sediment and potentially severe soil erosion can be destructive for local ecosystems. The Town of Aurora highly values its agricultural heritage and industry, and the natural systems which support agriculture could be heavily affected by this damage.

F. Insurance Claims

According to the ECMHMP (data from September 2021 was utilized), there are 12 active NFIP policies within the Town of Aurora, with 12 claims and \$96,661 total paid out for losses. There are 7 "repetitive loss" properties within the Town. FEMA defines a repetitive loss property as "an insurable building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978." Only one of these 12 properties is located in the 1% flood boundary.

The 12 policies held in the Town of Aurora are comparable to the median number of policies held in all other jurisdictions in Erie County, which is 8. The median number of claims per jurisdiction in Erie County is 18, compared to 12 in Aurora, and the median amount of losses paid out per jurisdiction is \$73,956, compared to \$96,661. Based on these comparisons, the Town of Aurora has slightly more than the median number of NFIP policies. Slightly fewer than the median number of claims have been made, but the losses paid out were substantially higher than in other jurisdictions. However, some communities in Erie County, such as those on the coast of Lake Erie or with major creeks, have very high numbers of policies, claims, and losses paid. For instance, the Town of Amherst had the highest number of policies (846) and number of claims (448), while the Village of Gowanda had the largest amount of losses paid (over \$2.3 million).

Table 9.8-9. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# Policies in the 1% Flood Boundary
Town of Aurora	12	12	\$96,661	7	1

Source: July and September, 2021 NFIP Data.

V. Social Vulnerability Assessment

Social vulnerability is the culmination of conditions which affect a person's ability to withstand sensitivity and exposure to the impacts of climate change. Climate conditions affect all residents, but not all residents are affected equally.

According to the Los Angeles County Climate Vulnerability Assessment (October 2021), factors that affect susceptibility to climate change conditions include:

- Inequities in infrastructure and access, caused by differences in education levels, income and wages, economic opportunities, healthcare, transportation, and other services;
- Exclusion from political and decision-making power;
- Inequities in environmental and living conditions; and,
- Differences in individual health, age, and ability.

Socioeconomic factors can create tangible differences in how people become aware of, protect themselves against, and experience the direct and indirect effects of natural disasters, including floods.

It is necessary to include underrepresented and marginalized populations who may be at greater risk from climate change impacts because they are the most likely to experience the most devastating effects of a climate hazard, both during and after the hazard event itself. This is not due to an inability to cope or be resilient to impacts on their own, but rather that various factors can make certain populations systematically more susceptible than others.

A. Vulnerable Populations

The Los Angeles County Climate Vulnerability Assessment utilizes a helpful index for understanding what socioeconomic identifiers might be used to predict a population's sensitivity to climate hazards. "Sensitivity" is used both in terms of psychological sensitivity, i.e., ability to cope, as well as the ability to prepare for or recover from climate hazards.

Age	Children, the elderly, older adults living alone
Community and language	Foreign-born, female, female householder, library access, voter turnout rate, limited English proficiency
Occupation	Outdoor workers (including workers in agriculture, fishing, mining, extractive or construction occupations), unemployment
Education	No high school diploma
Health	Disability, asthma, cardiovascular disease, no health insurance
Housing	Living in group quarters, mobile homes, cost-burdened, renters
Income and wealth	Median income, poverty
Race/ethnicity	Black, Asian, Hispanic/Latinx, Indigenous
Access to information	No internet subscription
Transportation	Households without vehicle access or transit access

According to the Town of Aurora Comprehensive Plan's Community Profile, the population of the Town of Aurora plus that of the Village of East Aurora was 13,394 as of 2020. The Town and Village grew quickly between the decades of 1900 to 1970, but growth has slowed down substantially since 2000, with a

1.5% decrease in population between 2000 to 2010 and a 1.2% increase between 2010 and 2020. While the Town is not growing rapidly, it is essentially remaining stable. As described above, the Town anticipates that the population will increase at least somewhat over the next few decades due to the influx of climate migrants, which may change the Town's overall demographics.

As of 2022, the median age of Town of Aurora residents is 50.3 years old, a 22% increase in median age since the year 2000. The 45–64-year-old age group is the largest age group in Aurora, making up just over a third of the total population. In the coming decades, the 65+ year old age group will be the largest population in the Town, a shift which will be accompanied by increasing needs, such as for medical services, care facilities, and transportation.

The average size of households in Aurora has decreased very slightly since 2010, from 2.58 to 2.54 in owner-occupied households (a decrease of 1.6%) and from 1.85 to 1.81 in renter-occupied households (a decrease of 2.2%). The dominant household type in Aurora is married couples, however, only 26.3% of these households have children under the age of 18, so most households are likely empty nesters. People aged 19 and younger, including all children and infants, make up 20.9% percent of the total population of the Town.

Nearly 50% of Aurora residents over the age of 18 have a bachelor's or advanced degree, substantially higher than the same achievement in Erie County as a whole, which is 35.8%. Only 3.6% of the Town's population over the age of 18 do not have a high school diploma.

The Town of Aurora's racial makeup is 95.2% white. Combined, all other races, including Black, American Indian, Asian, Pacific Islander, and others, make up 1.7%. People identifying as two or more races make up 3.1% of the Town's population.

Adjusted for inflation, the median household income in Aurora is \$104,899. For comparison, the median household income in Erie County is \$78,552. The median household income in Aurora has gone up by over 8% since the year 2000. Over 60% of the Town's households have annual household incomes between \$50,000 and \$199,000, and 17.9% have household incomes over \$200,000. The Town of Aurora is one of the wealthiest suburbs in the greater Buffalo region.

In terms of employment, the largest employment sectors that residents work in are Education, Health, & Social Services (32.6%), Manufacturing (12.6%), Professional & Administrative (9.8%), and Arts, Entertainment, and Food Services (9.24%). Sectors such as Construction (8%), Transportation & Warehousing (1.3%), and Agriculture (0.04%) make up small percentages of employment for residents of Aurora.

Of the residents of the Town of Aurora, approximately 5,450 work outside of the Town and only 1,199 both live and work within the Town. About 3.0% of residents walk, bike, or ride to work, and approximately 15% work from home. Of the total number of working residents, approximately 82% have access to a personal vehicle or shared vehicle for work. The percentage of households with access to a vehicle is at least that high when including non-working residents and residents who don't drive to work every day but still own a vehicle.

Given the preceding information, it is fair to say that the Town of Aurora is generally wealthy, highly educated, and mostly White with high accessibility to resources. Therefore, for the most part, the residents of the town have lower sensitivity to climate hazards. The most vulnerable populations in Aurora are likely therefore:

- (1) the elderly, especially those that live alone;
- (2) children;
- (3) the immunocompromised and disabled; and
- (4) people who work in high-exposure industries such as agriculture, construction, and transportation.

The Town and its stakeholders should plan on how to specially address these populations in case of a significant flooding event.

B. Population Exposed to 1% and 0.2% Annual Chance Flood Event

Based on GIS data and satellite imagery of the Town of Aurora, there are approximately 220 residential parcels in Zone A or AE (100-year flood), or approximately 7% of the 3,159 residential parcels in the Town. There are approximately 139 parcels in the shaded Zone X area (500-year flood), or 4.4% of residential parcels.

C. Impacts of Flood on Vulnerable Populations

The effects of a flood can be particularly devastating for vulnerable populations. As mentioned previously, this is not because of their own inability to cope with or be resilient in the event of a flood, but rather because they may systematically lack the resources necessary to evacuate beforehand, protect themselves against a flood, and/or recover in the aftermath of a flood. A non-exhaustive list of potential effects on vulnerable populations is provided below.

The elderly, especially those that live alone	Elderly people may have fewer resources to be forewarned of floods, such as by lack of internet access. They may also lack the resources to evacuate the area swiftly by not being able to drive or not owning a vehicle. Elderly people who live alone are more likely to be, though they are not always, isolated from others. They may have less support network to help them prepare for a flood, evacuate if needed, and clean up/recover after a flood. Additionally, many elderly people do not work and therefore have limited to no income that they can leverage to protect themselves or recover. Elderly people who live in care facilities tend to have a substantially lower degree of independence and their protection and preparedness are at the discretion of the care facility. Elderly people living in care facilities may also be disabled and need medical care that may not be available during a flood event. For both elderly people living independently or in a care facility, the aftermath of a flood can substantially impact on their health as they may be physically weaker and more susceptible to illnesses caused by mold, pollution, etc.
Children	Children are entirely dependent on their caretakers in the case of a flood. For school children, in the case of an emergency, their protection and emergency preparedness are at the discretion of school administrators or other authoritative adults. Children, particularly those under age 5, are also more susceptible to illnesses caused by the aftermath of a flood, such as respiratory issues, asthma, allergic reactions, etc.
The immunocompromised and disabled	Because disability exists on such a wide spectrum, it is difficult to pinpoint exactly how each person is vulnerable to flood events, however, their safety, preparation, and medical attention may be at the discretion of others. Some disabled people live independently; sometimes they are in the care of a family member, sometimes a care provider. The immunocompromised are particularly vulnerable to health issues that may be caused by a flood, such as mold, asthma, pollution, allergies, etc. They may require special medical

	treatment or access to support that may not be available during emergencies.
People who work in high-exposure industries	High-exposure industries include those in which employees spend most of their time outside. High-exposure occupations tend to have greater jobsite risk, as well as greater exposure to the elements, including natural disasters. Employees who work mainly outside have a high degree of exposure to floods, as their jobs may depend on being on the frontline of the flood event. They may also be isolated or stranded during a flood because they do not have all their resources at hand or have much ability to prepare with short notice. After a flood event, high-exposure occupations may be responsible for clearing debris, repairing or rebuilding infrastructure, and/or may be left unable to work at all, which can cause economic and mental distress.

VI. Community Engagement Summary

A. Takeaways from the Comprehensive Plan Public Survey

- **Flooding Impacts:** Nearly 30% of respondents reported experiencing stormwater drainage or flooding issues. The most impacted areas are the Hamlets of West Falls (23.8%) and Jewettville/Griffins Mills (15.3%).
- **Climate Change Concerns:** 47% of respondents indicated climate change impacts as a top environmental concern, following loss of open space and wildlife habitats (73%) and water pollution (48%).
- **Stormwater Infrastructure:** Many comments pointed to a need for improved stormwater control and highlighted localized issues—especially around older infrastructure and in areas near wetlands and creeks.

B. Takeaways from the Comprehensive Plan Stakeholder Interviews

- **Flood management is a Priority:** Flood management was identified as a key need in infrastructure planning. Stakeholders called for climate resiliency to be a central focus, especially in water systems, stormwater control, and protection of floodplains.
- **Environmental Vulnerabilities:** The Agriculture & Natural Resources Focus Group interview highlighted increased flooding, stream bank erosion, and degraded habitats as threats to the Town. They supported conservation as a climate adaptation strategy.
- **Calls for Action:** Stakeholders suggested using vegetative stream buffers, preserving mature trees, and improving zoning regulations to support resilience to climate shifts.

C. Takeaways from the Comprehensive Plan Public Workshop #1

- **Threats Identified by the Public:**
 - Overdevelopment and loss of green space
 - Climate change refugee influx putting pressure on infrastructure
 - Flooding and water runoff from poorly managed development
 - Environmental degradation from pesticides and deforestation
- **Community Values:** Residents emphasized the need for nature preservation and limiting development in sensitive areas like floodplains and wetlands

D. Feedback on Recommendations to this Assessment

(to be determined after workshop #2)

VII. Conclusion

A. Summary of Findings

Flooding events were identified by the Town of Aurora Climate Smart Task Force and the Erie County Multi-Hazard Mitigation Plan (2022) as the primary climate hazard for the town. Climate change will affect the Town of Aurora in many ways, including increased extreme weather events and temperatures, changes to water and soil, impacts on agricultural productivity, increased prevalence of disruptive invasive species, the potential increase in population due to climate migration, and a cascading effect of social justice issues. However, flooding is the most top-of-mind issue for the Town of Aurora currently because of several flooding instances in recent history and because of the prominence of Cazenovia Creek and Tannery Brook in the Town's geography. Climate change is anticipated to increase the number and severity of flood events because increasing temperatures intensify the water cycle, thus increasing total precipitation and the intensity of rainfall.

The risk of flooding is quantified by FEMA, which has published FIRM panels illustrating the areas of the Town most at risk of the 1% chance annual flood and the 0.2% chance annual flood. Of the total land area, 645 acres, or 3.0%, are within the 1% annual chance flood zone (Zone AE). There are 745 total acres within the 0.2% annual chance flood zone, or 3.4% of total land area. Floods have already caused destruction and losses of residential properties in the Town of Aurora and have the potential to cause substantial losses to other types of properties, with the monetary value of loss estimated in the millions of dollars. Flooding can also cause infrastructure damage, such as to roads and utilities, which can isolate residents during a flood event and leave them without critical lifelines. Further, floods can cause substantial economic loss, in terms of disrupting the typical functioning of commercial activity, but also the loss of tax base and the cost of cleanup after a flood. Floods also pose substantial risks to public health and safety, the most obvious being injury and loss of life, but also secondary impacts such as molding, allergies, respiratory illnesses, pollution, lack of sanitation, mosquitoes, and more. All these impacts can affect land use in substantial ways, which is of special interest to the Town of Aurora because its residents highly value the Town's agricultural land and open spaces.

Behind all physical vulnerabilities of the Town of Aurora to a flood event, there are over 13,000 residents (Town of Aurora plus Village of East Aurora) who could have their lives and livelihoods quite negatively affected. Although climate change effects, including floods, will impact all people, they will not impact all people equally. By conducting a social vulnerability assessment, it was determined that the Town of Aurora is generally wealthy, highly educated, and mostly White with high accessibility to resources. Therefore, for the most part, the residents of the town have lower sensitivity to climate hazards. The most vulnerable populations in Aurora are likely therefore the elderly, especially those that live alone; children; the immunocompromised and disabled; and people who work in high-exposure industries such as agriculture, construction, and transportation. These groups of people are most at risk of not being able to evacuate in case of an emergency; be stranded or isolated during a flood event; have lowered or no access to necessary medical care; be more likely to contract illnesses or be impacted by negative health issues; have their protection and safety in the hands of others; and possibly have high exposure to the frontlines or aftermath of a flood event. The Town and its stakeholders should plan on how to specially address these populations in case of emergency.

B. Recommendations

1. Re-activate and Support the Town's Disaster Advisory Committee

Description: The Town should review the membership, roles, and capacity of its Disaster Advisory Committee to ensure it is active, representative, and well-resourced. The committee should meet regularly, coordinate with emergency response agencies, monitor risks, assist with mitigation planning, and educate the public on preparedness and recovery. It should integrate climate resilience into emergency protocols and prioritize outreach to vulnerable populations (e.g., seniors, disabled residents, isolated households).

Responsibility:

- **Lead Agency:** Town Board
- **Support Agencies:**
 - Erie County Department of Homeland Security and Emergency Service
 - Town Code Enforcement / Floodplain Administrator

Potential Funding Sources:

- NYS Department of State Local Government Efficiency Grants
- FEMA's Emergency Management Performance Grant (EMPG) Program
- NYS Department of Environmental Conservation (DEC) CSC Implementation Grants

2. Conduct a Town Flood Vulnerability Study

Description: The Town should seek funding and commission a detailed flood vulnerability assessment to map at-risk areas and critical infrastructure (e.g., roads, utilities, shelters) along Cazenovia Creek and Tannery Brook. The study should recommend interventions like elevating roads, retrofitting culverts, and installing green infrastructure to manage runoff. The Town should prioritize engagement with owners of repetitive loss properties and identify mitigation pathways (e.g., buyout, elevation, floodproofing).

Responsibility:

- **Lead Agency:** Town Board
- **Support Agencies:**
 - Town Engineer & Town Floodplain Administrator
 - FEMA Region II
 - Erie County Soil & Water Conservation District
 - Buffalo Niagara Waterkeeper
 - CSC Task Force

Potential Funding Sources:

- FEMA's Flood Mitigation Assistance (FMA) Grant Program
- NYS DEC Water Quality Improvement Project (WQIP) Grants
- US EPA Climate Resilience Grant Programs

3. Become a member of FEMA's Community Rating System

Description: Enroll the Town in FEMA's Community Rating System (CRS) or a similar replacement agency at the state level to earn flood insurance discounts for residents and improve local floodplain management practices. Establish a CRS Coordinator, submit a letter of interest, and implement credited activities such as public outreach, flood protection assistance, and stormwater planning.

Responsibility:

- **Lead Agency:** Town Board
- **Support Agencies:**
 - Code Enforcement / Floodplain Administrator
 - CSC Task Force

Funding Sources:

- FEMA's Hazard Mitigation Assistance (HMA) Grants
- New York State Department of Environmental Conservation (DEC) Climate Smart Communities Implementation Grant
- Town budget allocations for administrative costs

4. Expand Community Education and Outreach on Flood Preparedness

Description: Create a public outreach campaign to inform residents—particularly seniors, renters, and households near flood-prone areas—about flood risks, insurance options, emergency alerts, and personal mitigation steps. Collaborate with community groups to distribute materials at the library, Senior Center, farmers markets, and school events.

Responsibility:

- **Lead Agency:** CSC Task Force
- **Support Agencies:**
 - Town Board
 - Aurora Public Library & West Falls-Colden Community Library
 - East Aurora Union Free School District
 - Local non-profits and faith-based organizations

5. Secure funding to Enhance Emergency Management Planning

Description: The Town should update and enhance its emergency management, including integration of climate hazards, evacuation protocols, sheltering strategies, and coordination with the school system. Enhanced planning should also include an assessment of emergency shelter readiness.

Responsibility:

- **Lead Agency:** Town Board
- **Support Agencies:**
 - Erie County Department of Homeland Security and Emergency Service
 - Fire & Police Department
 - CSC Task Force
 - Disaster Advisory Committee

Funding Sources:

- FEMA's Hazard Mitigation Assistance (HMA) Grants
- NYS Homeland Security Grant Program
- HUD Community Development Block Grant – Disaster Recovery

6. Establish a Community Emergency Response Team (CERT)

Description: The Town should create a Community Emergency Response Team (CERT) to train residents in disaster preparedness and emergency response. This volunteer-based program empowers residents to assist emergency personnel during natural disasters, including floods and power outages, by supporting evacuation, first aid, shelter operations, and basic fire safety. It also builds local capacity and enhances resilience through public education and community-based readiness.

Responsibility:

- **Lead Agency:** Disaster Advisory Committee
- **Support Agencies:**
 - Erie County Citizens Corps Council
 - Fire & Police Department
 - Senior Center

Funding Sources:

- NYS Division of Homeland Security and Emergency Services

7. Develop Stormwater Runoff Policies in Growth Areas

Description: Require stormwater impact assessments and green infrastructure measures for any new development over a certain size in designated growth zones.

Responsibility:

- **Lead Agency:** Building/Code Enforcement
- **Support Agencies:**
 - Planning Board
 - Town Engineer
 - Buffalo Niagara Waterkeeper

Funding Sources:

- NYS EFC Green Innovation Grant Program
- FEMA Hazard Mitigation grants for flood reduction designs.

8. Complete a Town-Wide Stormwater Master Plan

Description: Conduct a comprehensive stormwater assessment of major basins, prioritizing green infrastructure solutions (rain gardens, bioswales, permeable pavements).

Responsibility:

- **Lead Agency:** Town Engineer & Building/Code Enforcement
- **Support Agencies:**
 - Highway Department
 - Erie County Soil & Water Conservation District
 - CSC Task Force
 - Buffalo Niagara Waterkeeper

Funding Sources:

- NYS DEC Water Quality Improvement Program (WQIP)
- NRCS Watershed Protection and Flood Prevention program

C. Document Monitoring & Updates

Establishing an implementation and monitoring framework is essential to ensuring that this Climate Vulnerability Assessment (CVA) remains a living document that evolves with changing conditions, science, and community needs. This framework outlines how the Town of Aurora will monitor progress, integrate new information, and engage the community in re-evaluating climate risks and adaptation strategies.

i. Next Steps After Plan Adoption

Following adoption of the Comprehensive Plan along with this Climate Vulnerability Assessment, the Town of Aurora will:

- Disseminate the plan to all relevant Town departments, boards, and community partners.
- Assign departmental and/or board responsibility for each recommendation and initiate an implementation plan.
- Identify staffing and technical support needs for implementation and monitoring activities.
- Apply for state and federal grants to support the identified recommendations.
- Begin outreach to residents and organizations in flood-prone and vulnerable areas, particularly repetitive loss properties.

ii. Timeline for Reassessment

The Climate Vulnerability Assessment will be formally re-evaluated on the following schedule:

- **Routine Reassessment:** At least once every **10 years**.
- **Triggered Reassessment:** The Town will update the assessment **prior to the 10-year mark** if any of the following occurs:
 - A major flooding or extreme weather event that causes substantial damage or emergency response;
 - A significant update to New York State climate projections (e.g., ClimAID)
 - Complete of a Town Flood Vulnerability Study
 - Introduction of new floodplain maps, hazard models, or tools by FEMA or other relevant agencies;
 - A material shift in population demographics or community vulnerability (e.g., climate migration or the development of a new senior housing facility in a flood prone area).

iii. Components of Each Update

Each reassessment will:

- Incorporate the latest regional climate science and projections
- Evaluate the Town's exposure, sensitivity, and adaptive capacity across infrastructure, facilities, natural systems, and social demographics.
- Document any major weather events (floods, heatwaves, utility failures) experienced since the last update and how they impacted community assets and residents.

- Re-assess vulnerable populations (e.g., elderly, disabled, renters, frontline workers) to reflect shifting demographics, access to resources, or new risks.
- Re-prioritize community assets and critical systems if risks or vulnerabilities have changed.
- Include a section summarizing implementation progress for each recommendation identified in the assessment.
- Engage in community outreach to gather public feedback through surveys, public meetings, or workshops, especially from high-risk neighborhoods.

vi. Roles and Responsibilities

- **Lead Agency:** Town of Aurora Disaster Advisory Committee
- **Support Agencies:** Town Board, Climate Smart Communities Task Force, Code Enforcement Office, Erie County Department of Environment and Planning, Erie County Department of Homeland Security and Emergency Service, and community organizations
- **Reporting:** A written summary of progress and conditions will be prepared and shared publicly via the Town website and community newsletters.