

Chapter 1: Introduction

Why Erie County Needs to Take Climate Action

The consequences of climate change are all around us. Warmer lake temperatures are causing more intense storms while high wind speeds, Lake Erie seiche events, and extreme temperature events are becoming more common. In 2022, the United States experienced \$165 billion in weather and climate disasters, the third highest amount ever.¹ Erie County, like the rest of the world, is faced with the threat of a climate emergency, which is compounding the long-standing challenges of economic inequality and racial injustice. The most recent Intergovernmental Panel on Climate Change (IPCC) report, an international scientific assessment of the threats presented by climate change, was released in 2022 and indicates that the window in which to act and reduce the intensity of climate change impacts continues to shrink.²

Earth's average temperature is warming due to increases in greenhouse gas (GHG) emissions being released into the atmosphere from human activities, which will continue increasing the temperatures on our planet for thousands of years. This warming of the Earth's atmosphere is driving rapid changes in our climate. Although cycles of warming and cooling throughout Earth's history are natural, the National Aeronautics and Space Administration (NASA) (Figure 1) and the U.S. Global Change Research Program (Figure 2) show a notable, recent increase in the amount of carbon dioxide and other GHGs being released into the atmosphere.

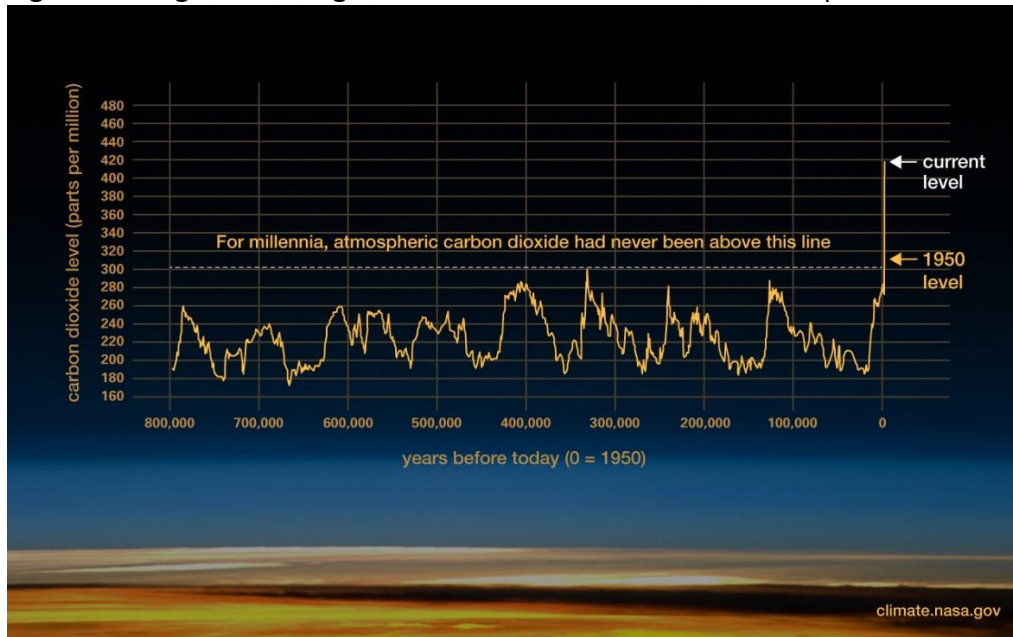
GHG emissions are predominantly associated with the burning of fossil fuels for generating electricity, fueling transportation, space heating, and industrial processes. This increasing concentration of GHGs in our atmosphere indicates that humans are severely altering the Earth's climate system.

Human activities that produce GHG emissions are changing our climate in a way that dramatically alters trends in weather, which affects all aspects of our lives, such as how we build houses and how we grow food. Erie County has already seen the impacts of climate change as Lake Erie warms and more frequent and intense storms impact our local environment, health, safety, infrastructure, and economy. It is important to note that these changes also have devastating impacts on our natural environment, resulting in altered ecosystems, mass migrations, and mass extinctions of both plant and animal species. For every degree of average global temperature warming, the rate of species extinction increases further.

¹ <https://www.ncei.noaa.gov/access/billions/>

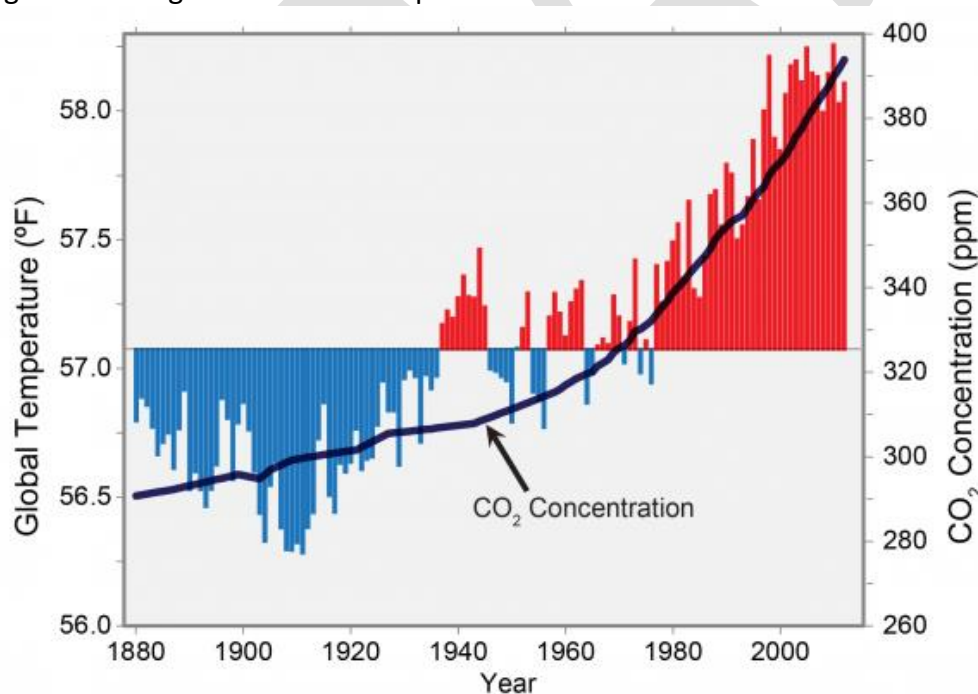
² <https://www.ipcc.ch/report/ar6/wg2/>

Figure 1: Long-term changes in CO₂ concentration in the atmosphere.



Source: https://climate.nasa.gov/climate_resources/24/graphic-the-relentless-rise-of-carbon-dioxide/

Figure 2: Changes in CO₂ and temperature since 1880.



Source: <https://www.globalchange.gov/browse/multimedia/global-temperature-and-carbon-dioxide>

But there is hope and opportunity. Erie County alone cannot prevent the climate from changing, but action and support from the state, federal, and local governments, together with community residents and local businesses both here in Erie County and around the globe, can make a significant contribution towards limiting worldwide GHG emissions. Because the effects of climate change are already being experienced, we must also prepare ourselves to be more resilient to current and future impacts.

This Erie County Community Climate Action Plan (CCAP or “the Plan”) is focused on creating opportunities to address climate change while also protecting our residents, creating jobs, protecting productive farmland, and addressing issues of inequity. This Plan outlines goals, strategies, and actions that the County can take, whether directly or indirectly, to address this important issue.

Background

Erie County has a long history of working to protect the environment, especially around issues of water quality protection. The County’s work addressing climate change began in earnest in 2015 with the hiring of a Sustainability Coordinator and the creation of a Green Team, which includes representatives from all County departments, to reduce the climate impact of its internal operations.

In 2017, the County Executive issued an order directing all County departments to aggressively reduce GHG emissions. Erie County’s Climate Action & Sustainability Plan (CASP), adopted in 2019, was written primarily to reduce the carbon footprint of the County’s internal operations. Erie County has been implementing the CASP and has been recognized both nationally and state-wide as a leader on climate action, receiving its designation as a [Certified Silver Climate Smart Community and a Clean Energy Community](#).³

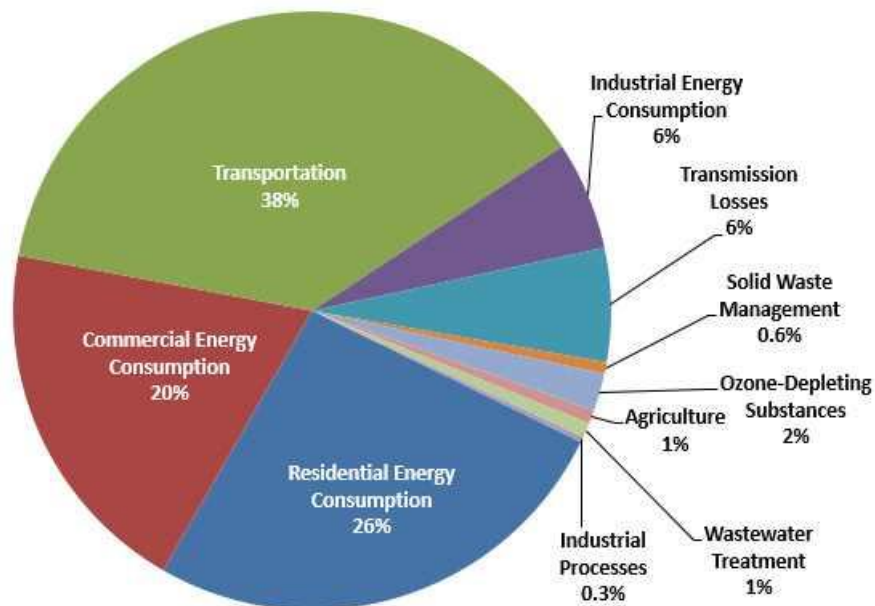
To better address climate change and reduce GHG emissions in the community, Erie County formed the Community Climate Change Task Force as the official advisory board on the issue and established Erie County Climate Action as the County’s planning process to create this equity-focused CCAP. The Task Force is a committee of the Erie County Environmental Management Council (EMC), which advises the County on environmental issues, and includes representatives from community-based organizations, nonprofit organizations, youth groups, colleges, municipalities, business representatives, transportation organizations, a utility company, libraries, and museums.

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https://climatesmart.ny.gov/?type=1336777441&tx_sjcert_certification%5bcertification%5d%5b__identity%5d=105

In the past, the County developed a community GHG inventory, which helped identify key focus areas for this plan (Figure 3). The inventory found that transportation, commercial energy consumption, and residential energy consumption are the top three GHG emission sources in Erie County. The County plans to update this inventory in the near future with forthcoming federal grant resources.

Figure 3. Erie County Community GHG Inventory



The Task Force advised the County regarding the development of an outline for the CCAP. The Task force identified ten (10) topic areas and formed working groups to develop plan chapters for these topics, which are discussed below. Between March 2020 and February 2023, Erie County coordinated the development of the CCAP with over 100 volunteers from the Task Force and the community. The chapters were written to include goals, strategies, and tangible action items that Erie County can take to reduce GHG emissions. A robust website, www.erie.gov/climateaction, was created to house documents for public comment as well as communicate ways for community members to get involved in the development of the CCAP.

Regional and State Plans

This Plan rests on the foundations of earlier regional plans, such as the WNY Regional Sustainability Plan (2013)⁴ and [One Region Forward](#).⁵ This planning process considered those plans and built on their recommendations.

⁴ <https://regional-institute.buffalo.edu/wp-content/uploads/sites/155/2020/10/Western-New-York-Regional-Sustainability-Plan.pdf>

⁵ http://bap-home.net/solarize/wp-content/uploads/sites/28/2017/05/1RF_A-New-Way-To-Plan-For-Buffalo-Niagara_FinalPlan_reduced.pdf

Not long after the Task Force started meeting in 2019, the New York Climate Leadership and Community Protection Act (CLCPA) was passed. This state legislation and the resulting NYS Climate Scoping Plan, which was released in December 2022, is one of the most aggressive state plans in the country. The Task Force agreed that a community climate action plan for Erie County should strive toward the goals of the CLCPA, especially prioritizing investments in historically disadvantaged communities. While Erie County's plan is separate and distinct from the state plan, the state plan will likely result in funding opportunities, and so we have considered it while crafting this Community Climate Action Plan.

Commitment to Equity

The legacy of inequity that has been inherited from previous generations is still present today in Erie County, as well as the rest of the country. The compounding issues of past economic policies, such as racially influenced zoning regulations and lending policies, termed "redlining," have resulted in a segregated County that has areas with deep challenges, including lack of food access, lack of trees, old housing stock, and mobility issues. While many of these problems are most apparent in the urban areas of the County, rural communities also feel the impacts of inequity, poverty, and feeling forgotten.

Erie County has approached this Plan with a commitment to using an equity lens while developing the Plan's strategies and action items. The working group members used the "Racial Equity Impact Analysis Tool," as described in Chapter 2, which is a series of questions to help ensure that a process does not forget to consider the impact of recommended strategies or actions on minority and disadvantaged communities. More information about this topic can be found in the Climate Justice chapter.

Erie County Government Levers

While Erie County has more residents than some countries and manages more roads than some states, Erie County's role is more limited than a federal or state government. Erie County's many responsibilities include administering social services and public health programs, as well as maintaining important infrastructure, such as County roads and wastewater treatment plants. It is important to note that because New York is a "home rule" state, Erie County does not have the lead role in many key aspects of reducing climate impacts, such as land use regulation and energy code enforcement, which are the responsibility of the cities, towns, and villages.

Protecting the life and property of our community through services provided by the Departments of Health, Social Services, Environment & Planning, Senior Services, Veterans Services, and Emergency Services makes addressing impacts from climate change a natural role for the County. Erie County can also expand these programs to help support municipalities and households in their efforts to reduce GHG emissions and adapt to a changing climate.

In cases where Erie County might not have the jurisdiction to control or implement an action directly, it does have the ability to influence it. For example, the County is a board member of the Erie County Industrial Development Authority, and in that role it can help prioritize climate action within economic development.

Benefits to Physical and Mental Health

Public health and climate change are deeply connected. Health issues resulting from poor air quality, poor water quality, and extreme weather events are putting pressure on those who already struggle with cardiovascular disease, respiratory issues, and other medical conditions. Ongoing health issues coupled with Erie County's older building stock and lack of air conditioning magnify the public health threat of extreme heat and cold, especially to our most vulnerable populations, children and seniors, in communities that experience the most health disparities and inequities.

Addressing climate change can help improve the health of our community. For example, the transition to electric vehicles will reduce air pollution in neighborhoods. Erie County needs to anticipate and prepare for the issues that will arise from climate change to protect public health. The first step in this preparation was the creation of a Climate Vulnerability Assessment, which is discussed in more detail in the Climate Resiliency Chapter. The Erie County Department of Health and Department of Environment & Planning now work together regularly to address this issue. The Climate Vulnerability Assessment identified extreme heat as a key vulnerability in our community, and in 2023 the County will begin work on a Heat Emergency Plan.

It is also vital that we consider the impacts of a changing climate on our community's mental wellness. Anxiety and depression about climate change and the impacts of extreme weather events is adding to the existing mental health crisis. While this Plan is focused on taking positive action to address climate change, we also need to make connections to existing mental wellness

and support programs that make space to discuss these concerns. The County should strive to include this growing problem of climate change-related anxiety and depression into their mental health programming.

Implementation

Successful implementation of this Plan will require a multifaceted approach, including engaging with our community, securing state and federal funding sources, and leveraging partnerships.

Creating programs that communicate the actions that we can take as a community to reduce the impacts of climate change, while at the same time preparing for the impacts of a changing climate, is vital to all the chapters within this Plan. The development of education and outreach should also ensure that we are trying to reach all residents by considering access, distribution, translation, accessibility considerations, and more. It will be essential for the County to help our community become aware of opportunities to reduce GHG emissions and adapt to climate change to fulfill many of the goals, strategies, and actions outlined in this Plan.

Erie County will need to find ways to braid financial resources and leverage state and federal funding programs to address climate change. Recently passed state and federal legislation, like the Environmental Bond Act and Inflation Reduction Act, will be critical sources of funding. Also, this effort's careful consideration of NYS's climate action planning process has resulted in the inclusion of actions that are likely to align with future state funding opportunities. The timing of this CCAP will be beneficial as we compete with other communities to access these resources.

Just as this Plan involved the work of partners across the community, Erie County will not be able to achieve the objectives of this Plan alone. Erie County will need to work with municipalities, school districts, businesses, nonprofit organizations, community groups, and residents to actualize its full potential.

Overarching/Cross-cutting Actions

In addition to the sector-based strategies and actions identified later in this Plan, the Erie County Community Climate Change Task Force has identified two overarching actions: (1) create a Chief Climate Officer role in the County Executive's Office to help lead the County's climate action program, and (2) create a Benefits of Climate Action Policy to guide decision makers as they make program and infrastructure decisions. Each of these positions are described below.

Chief Climate Officer

The climate crisis is one of Erie County's greatest challenges, and there is enormous opportunity in our response. It is essential that we coordinate our response across all County departments so that we can make the progress we so urgently need and drive our clean energy economy. Every department in the County has a role to play in mitigating GHG emissions and protecting our community from the impacts of climate change, which requires coordination across departments. Because so many County actions have some relationship to climate change, it is

important that there is visibility and leadership at the highest level so that the County can implement a whole-government approach and prioritize the most impactful actions and the most coordinated response possible. To this end, the County will evaluate creating an executive-level role of Chief Climate Officer in the Office of the County Executive, charged with overseeing this response. The role could be assigned to an existing executive-level staff or a new position could be created. The Chief Climate Officer would help lead and coordinate the County's climate efforts and would integrate a climate focus throughout all of the County's lines of operation.

Benefits of Climate Action Policy

To be effective at addressing climate change, the County needs to carefully account for the climate impacts, both positive and negative, of its actions. As the County transitions to clean energy, many of these benefits are societal, benefiting our community's health and environment. As the County develops new programs, updates existing programs, and makes decisions about infrastructure investments, it is important that the societal value of GHG mitigation and climate resiliency be considered.

To create this policy, the County could reference New York State guidance titled "Establishing a Value of Carbon: Guidelines for State Agencies," which provides a relatively simple 'damage-based approach' that is used by state agencies to account for GHG emissions and climate impacts in their decision-making, which could be incorporated into a County policy. This guidance provides a quantified dollar-per-ton societal cost for emissions of carbon dioxide, methane, and other GHGs.

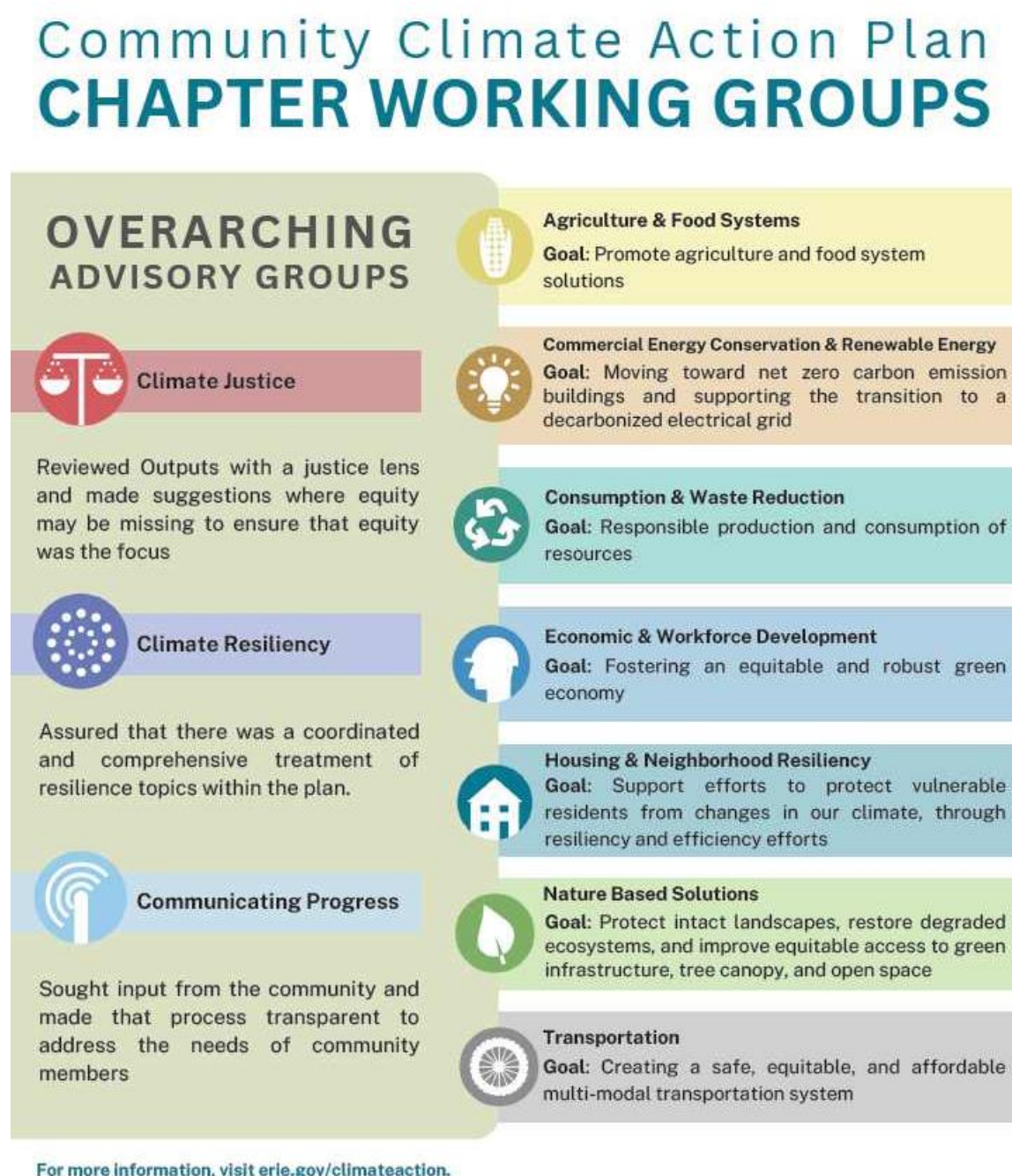
The County will review the creation of a policy to incorporate an assessment of the benefits of climate action into its programmatic and infrastructure decision-making. This policy will not be binding on departments regarding final decision-making, but instead will create a framework so that decision-makers have transparency regarding the relative societal carbon costs and benefits of policy and infrastructure options. As the County develops this policy, it will consider thresholds and categories for applicability so that the policy can be applied in ways that are efficient, cost effective, and will have the greatest impact on addressing the County's climate goals.

How to Read This Plan

This document is intended to serve as a high-level roadmap to help guide and prioritize the County's climate actions. The CCAP will remain as a living document that will guide Erie County as we work to create a sustainable community.

This plan consists of this introduction, three chapters that address overarching topics, and seven sector chapters (see Figure 4). The overarching chapters describe topics that cut across all of the climate technical areas, for example Climate Justice, which describes an approach that is interwoven through all of the sector topics. The seven sector chapters address specific technical topic areas such as transportation and agriculture, and each has one overall Goal with multiple Strategies and Action Items.

Figure 4: Chapter Working Groups



The identified Goals, Strategies, and Action Items included in this Plan will significantly reduce or sequester GHG emissions in Erie County and adapt the community to future climate change impacts. Each of the seven sector chapters has a single Goal, several Strategies, and for each Strategy the work groups identified key discrete Actions (Figure 5).

Figure 5: Goals, Strategies and Actions

Community Climate Action Plan Organization

7 Goals

A broad, aspirational statement of the Chapter will achieve

28 Strategies

Approaches to achieving the Goal

172 Action Items

Tangible next steps for implementation, such as specific policies, programs, or tools to support a strategy

Each Action Item consists of:

Action Statement: Describes the policy, program, or tool that the County will deploy to support the goals and strategies.

Horizon: Identifies likely implementation timeframe. In some cases, implementation may span multiple time periods.

- Short-term: by or before year 2030;
- Medium-term: by 2040; and
- Long-term: by 2050.

Sphere of Influence: The three spheres are Direct, Indirect, and Support. Some actions may touch on all spheres.

- **Direct:** the County can directly control the action; relating to County operations and infrastructure.
- **Indirect:** regional agencies and municipalities have control, or the County can give support and influence to the action.
- **Support:** State or Federal policies and programs.

Lead County Entity: Departments or other County entities overseeing implementation of the action within their jurisdiction.

Partners: Implementation partner or partners who will be working with Lead County entities.

Acknowledgement

This effort was conducted without technical consultant support and relied on the efforts of volunteer stakeholders and County staff. The county wishes to acknowledge the Environmental Management Council (EMC) and its Community Climate Change Task Force for their support. The Task Force chair, Dr. Susan Clark, the EMC chair, Jason Kulaszewski, our Work Group Leads and our many stakeholder participants who volunteered their leadership and expertise were instrumental in bringing this project to fruition. A list of organizations that participated in this process is listed at the end of the document. This project has been funded in part by the Climate Smart Community Grant Program, Title 15 of the Environmental Protection Fund through the New York State Department of Environmental Conservation.