



# Erie County Environmental Management Council



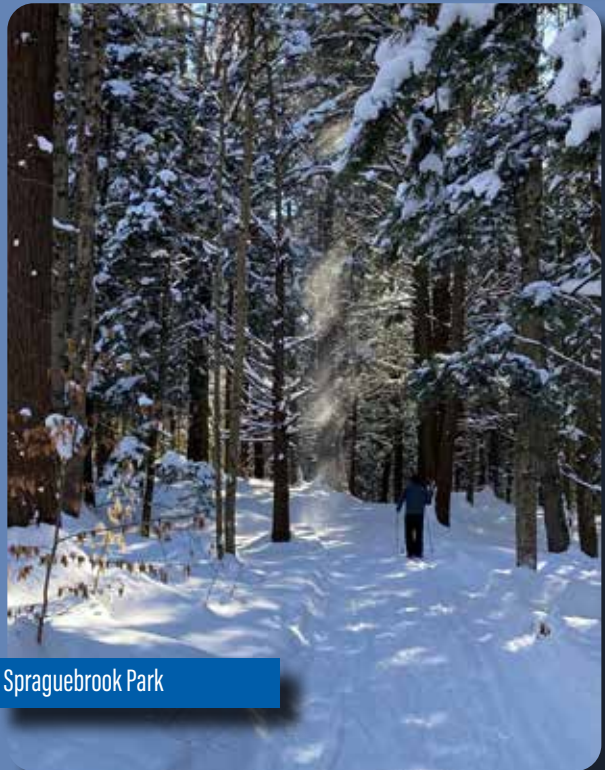
White Pine



Buffalo Heritage Carousel



Frederick Lawn Gnomestead



Spraguebrook Park

## Annual Recommendations Report 2021



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# EXECUTIVE SUMMARY

## Background:

The Erie County Environmental Management Council (EMC) is made up of representatives from many of the cities, towns and villages within Erie County, as well as 12 at-large members from throughout the County. The EMC's mission is to advise County government on addressing local environmental concerns, as well as provide a liaison between the community and County government.

To that end, the EMC prepares an **Annual Recommendations Report** that provides information for **strategic planning** and **priority setting for the allocation of resources to address environmental** issues facing Erie County. It is important to note that many of the EMC's previous Recommendations have been implemented, and the **EMC would like to congratulate County leadership and staff for their work** in improving the environmental quality of Erie County.

In particular the EMC wants to recognize the County's work on:

- Implementation of the **equity-focused Community Climate Action** planning effort
- Establishment of the **Paris Fund** to help sustain climate adaptation and resiliency efforts
- Erie County's **Low-Income Program for Sustainable Energy (ECLIPSE)** program
- **Climate Smart Communities** and **Clean Energy Communities recognition** from New York State.

Over the past year, the EMC has also overseen some of its own programming:

- **The 7th annual EMC Environmental Excellence Awards** ([www.erie.gov/emc](http://www.erie.gov/emc)) recipients were recognized in April. These awards are designed to bring attention to municipal and not-for-profit projects that have a positive environmental impact.
- The EMC also continued to advocate for **chemical free lawn care** through our healthy lawns campaign, called "**A Safe Home for the Gnomes**" ([www.erie.gov/healthylawns](http://www.erie.gov/healthylawns)).
- Moreover, the EMC worked with County staff and the Community Climate Change Task Force to develop and implement an **equity-focused Climate Action Planning Process** ([www.erie.gov/climateaction](http://www.erie.gov/climateaction)). This people-focused planning effort includes stakeholders from across the region and is **intended to identify the County's highest priorities for mitigating climate change and addressing its impacts** through the lens of **environmental justice**.

## Recommendations:

Erie County has shown adaptability in the face of the COVID-19 global pandemic, but **the EMC recognizes its impact on County operations, our environment and the people of Erie County**. Our 2021 recommendations come on what is thought to be the heels of that crisis **with hope for an opportunity to do more for our people and planet**. Please consider the following recommendations during the annual budgeting process and beyond.

## **Climate Change:**

Create an **equity-focused Community Climate Action Plan**. It is important that Erie County plan for how to mitigate climate change and address the effects of climate change while considering **the County's role in protecting those most vulnerable to the impacts of climate change**.

## **Energy:**

Develop and support programming to **help local governments and their residents reduce energy consumption** and transition to renewable energy. Erie County should also work to **balance clean energy needs with agricultural protections**.

## **Human Health and Environmental Justice:**

Allocate resources to address **lead issues in housing** throughout the County, and **educate the public** about site specific health risks in the community related to **lead, brownfields, toxic waste, and everyday household chemicals**.

## **Land Use:**

**Use County-owned properties to address sustainability issues**, and implement **nature-based climate solutions** that include expanded tree plantings, fostering natural habitats, and **using living infrastructure where possible**.

## **Solid Waste:**

Work to **develop standardized practices for composting and recycling throughout the County**. Support laws and policies that **reduce single use plastic**, and **bottle bills for deposit or recycling wine and liquor bottles**.

## **Transportation:**

Work with regional partners to **develop an equitable, zero emission, and multi-modal public transportation system** that includes strategically implementing **Complete Streets treatments on County highway projects**. We also recommend reducing transportation emissions from County operations through **vehicle electrification and remote work options**.

## **Water:**

Work with regional partners **to promote living infrastructure in local watersheds**, and seek opportunities to **implement these projects on County properties**.

The EMC urges County leaders to continue to **invest in the protection and restoration of our people and environment**. Prioritizing this work is an opportunity to **improve our environment for the current and future generations**, and improve economic prosperity and quality of life to **foster a place where people want to grow their future**.



## MEMBERS OF THE ENVIRONMENTAL MANAGEMENT COUNCIL 2021

### At-Large Representatives:

*Jason Kulaszewski, Chair*  
*Sharon Bachman*  
*Anne Bergantz*  
*Jeanne Beiter*  
*George Besch*  
*Rosa Gonzalez*  
*David Hahn-Baker*  
*Eric "Luke" Krieg*  
*Faustenia Morrow*  
*Marcus Rosten*  
*Don Stribick*  
*De'yron Tabb*

### Municipal Representatives:

Amherst - *Jessica Boudreau*  
Aurora (T) - *Don Owens*  
Buffalo - *Nadine Marrero*  
Boston - *Mitch Tucker, Ph.D.*  
Cheektowaga -  
Councilmember *Linda Hammer*  
Clarence -  
*Brenda Young, Vice Chair*  
Depew - *Trustee Jackie Kucewicz*  
Eden - *Greg Genco*  
Elma - *Raymond Boy*  
Grand Island - *Sam Akinbami*  
Hamburg (T) -  
*Leona Rockwood, Secretary*  
Hamburg (V) - *Andrew Schrauth*  
Holland - *William Kolacki*  
Lancaster (T) - *Julius McCann*  
Lancaster (V) - *Mayor Lynne Ruda*  
Newstead (T) - *Lewis Tandy*  
Orchard Park (T) -  
*Richard Schechter*  
Tonawanda (T) - *Patrick Mang*  
West Seneca - *Michael Wass*  
Williamsville (V) - *Jane Vohwinkel*

*EMC Members June 1, 2021  
through May 31, 2023*

The EMC would also like to thank previous EMC members **Dr. Phil Stokes, Meaghan Boice-Green, Paul Furhmann, and Paul Michalec** for their work on this report.

## INTRODUCTION

### Background:

The Erie County Environmental Management Council (EMC) is made up of representatives from many of the cities, towns and villages within Erie County, as well as 12 at-large members from throughout the County. Their terms run for two years. The current two-year term just began in June of 2021. A list of EMC members serving the current term is included in the sidebar.

The EMC's mission is to advise County government on addressing local environmental concerns, as well as to provide a liaison between the community and County government. To that end, the EMC prepares an **Annual Recommendations Report** that provides information for **strategic planning** and **priority setting for the allocation of resources to address environmental** issues facing Erie County. It is important to note that many of the EMC's previous Recommendations have been implemented, and the **EMC would like to congratulate County leadership and staff for their work** in improving the environmental quality of Erie County.

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- The EMC also continued to advocate for **chemical free lawn care** through our healthy lawns campaign, called **"Home for the Gnome"** ([www.erie.gov/healthylawns](http://www.erie.gov/healthylawns)).

## 2021 EMC AWARD WINNERS:



### **Buffalo Heritage Carousel, Inc. – The KeyBank Roundhouse**

The Buffalo Heritage Carousel, Inc., is opening this year, has worked to include education about renewable energy technologies, conservation and preservation into the design of the KeyBank Roundhouse. Their thoughtful design stimulates life-long learning about our past, the environment and the responsible use of our natural resources through play and hands-on experiences. For more information, visit: <https://www.buffaloheritagecarousel.org/>.



### **Buffalo Sewer Authority, Community Action Organization (CAO) of Western New York, and Joy Kuebler Landscape Architect - Water WORX Community Education**

The Buffalo Sewer Authority partnering with Community Action Organization (CAO) of Western New York, worked Joy Kuebler Landscape, to engage and educate youth, utilizing its newly designed green infrastructure project for Buffalo's Willert Park Neighborhood as a living laboratory. The program is designed to inspire the next generation of green infrastructure designers, installers and planners. For more information, visit: <https://raincheckbuffalo.org/project/water-worx-stormwater-education-program/>.

### **Imagine: Hamburg – Butt Kickers Committee**

Imagine: Hamburg volunteers have engaged their community to prevent cigarette butt litter. Many people believe that cigarette butts are biodegradable, but they are actually made of plastic. The volunteers created an informational brochure that they delivered to more than 100 village businesses and established butt receptacles. They also joined a regional effort around this issue organized by Roswell Park. For more information, contact: <https://imaginehamburg.org/meetings-contact-us/>.

### **Home for the Gnome Info**



The EMC continues to advance its Healthy Lawns Campaign with the "name the gnome" contest building off of the recent "A Safe Home for the Gnomes," lawn sign campaign where residents pledge to not use chemicals & pesticides on their lawn and then receive a lawn sign to post on their property. Pictures of the gnome at various environmental and community sites from around the region are posted to social media and community websites. The project has many partners. Cornell Cooperative Extension's assistance through their Master Gardeners Program has proved to be vital. The EMC pursued this project because reducing the use of lawn care chemicals and increasing native plantings is something that can be done by all homeowners. Moreover, these actions directly protect water quality, pollinators and human health. For example, preventing excess lawn fertilizer from entering storm sewers can reduce the likelihood of a harmful algal bloom occurring in Lake Erie. *Note: Not long after the EMC finalized this report, the Gnome's name was announced – Frederick Lawn Gnomested. Freddie can be found at public events and is popular with kids and adults alike!*

## CLIMATE CHANGE:

Climate change is an urgent threat affecting all aspects of our economy, our well-being, and the natural world. For example, the growing season has lengthened as a result of climate change, but with increased periods of drought, more irrigation infrastructure may be needed. Moreover, while it is anticipated that the region will experience more extreme heat waves, many of our most vulnerable residents lack air conditioning. As a result, climate change demands swift, decisive action.

The EMC is grateful for the County's leadership on climate change, and we applaud the actions the County is taking to prioritize climate change as a guiding principle for its operations and service delivery.

In 2019, New York State passed the Climate Leadership and Community Protection Act (CLCPA or NYS Climate Act), which creates an opportunity for Erie County to align its priorities with the NYS Climate Act's goals and future funding opportunities expected to support them. The Act includes a commitment to:

- 70% renewable energy use by 2030 and 100% zero-emission electricity use by 2040;
- Limiting statewide greenhouse gas emissions to 40% of 1990 levels by 2030 and 85% by 2050; and
- Groundbreaking equity provisions, including a mandate that at least 40% of climate-related funding streams prioritize directing benefits to vulnerable and disadvantaged communities.

Since committing to climate goals and releasing its ***Erie County Commits to Paris***<sup>1</sup> report, the County has continued to implement initiatives that reduce greenhouse gas emissions and has begun planning processes to adapt to climate change. For example, the County has been working with the University at Buffalo to develop its first Climate Vulnerability Assessment. That effort will wrap up in 2021 and will guide the County's efforts to make the community more resilient to the impacts of climate change. Moreover, the County continues to work with the Community Climate Change Task Force, a committee of the EMC, on climate change mitigation and adaptation planning. The EMC commends the leadership of the County on this incredibly important issue.

All of the work described above has been built on the foundation of the ***Climate Action & Sustainability Plan***<sup>2</sup> for internal operations, adopted without opposition by the Erie County Legislature in 2019. The plan sets more aggressive greenhouse gas reduction goals than those contained in the County Executive's 2017 Order and outlines a series of actions to achieve those goals. The County's Green Team is implementing actions in the plan, such as creating a compost facility at the Erie County Correctional Facility and advancing major energy conservation projects. In fact, the New York State Energy Research and Development Authority (NYSERDA) recently recognized Erie County as a ***Clean Energy Community***<sup>3</sup> because of their many energy conservation and renewable energy projects. The New York State Department of Environmental Conservation (DEC) has also recognized these achievements and designated Erie County as a ***Bronze Certified Climate Smart Community***.<sup>4</sup> The County is currently pursuing Silver Certification, which has only been achieved by three other counties in New York State.



Erie County is also working across the state on this issue. In 2019, Erie County spearheaded formation of the Climate Resiliency Committee for the New York State Association of Counties, which is a forum for New York State county governments to share strategies and coordinate their response to climate change. Erie County continues to have a leadership role with that committee.

### **Climate Change Mitigation:**

While the County has made measurable progress reducing greenhouse gas emissions, especially within its internal operations, the County has not made significant reductions at the community level. The EMC recognizes that the County has begun to work with stakeholders and the community on an equity-centered Community Climate Action Plan and is doing more to assist local governments and residents. To that end, the EMC recommends that the County pursue the following climate mitigation initiatives:

- **Continue to work with the community to develop a comprehensive County-wide climate action plan with a focus on racial equity.**

To meet the goals of the New York State Climate Act, the County needs a comprehensive, community-focused climate action plan to be developed with community input. This plan could build from the **One Region Forward**<sup>5</sup> framework to facilitate broader connections to neighboring counties. The plan should address greening our transportation systems, protection of natural carbon sinks, and renewable energy development among other topics, providing a realistic blueprint for achieving these important goals. Finally, as the dominant human services provider in the community, the County has a unique understanding and capacity to assure that our transition to a low carbon community is a “Just Transition,” done equitably, and in a way that lifts up disadvantaged communities and people of color, and limits harm to workers impacted by economic change (see sidebar p. 10). The County has started their planning process using a Racial Equity Impact Analysis Tool to guide the working groups. The County is also working on deep community engagement through community meetings and their climate ambassador program.

## **Community Climate Change Task Force Members:**

Susan Clark, Chair - SUNY University at Buffalo, Chair  
Anne Bergantz - EMC  
Brenda Young - EMC, Daemen College  
George Besch - EMC,  
Designing to Live Sustainably (D2LS)  
Jason Kulaszewski, Secretary - EMC,  
UB Regional Institute  
David Hahn Baker - EMC  
Faustenia Morrow - EMC  
Lynda Schneekloth - Sierra Club,  
WNY Environmental Alliance  
Rahwa Ghirmatzion - PUSH Buffalo  
Clarke Gocker - PUSH Buffalo  
Doug Funke - Citizens for Regional Transit  
Jon Nickerson - National Grid  
Jason Paananen - City of Buffalo  
Kelley St. John - City of Buffalo  
Meghan Dye - Tift Nature Preserve &  
Buffalo Museum of Science  
Sarah Wooton - Partnership for the Public Good  
Darren Kempner - NFTA  
Matthew Sutton - Town of Tonawanda  
Mark Shriver - WNY Sustainable Business Roundtable  
Kelly Dixon - GBNRTC  
Justin Booth - GObike  
Emily Dyett - Buffalo Niagara Waterkeeper  
Nadya Elhalawany - WNY Youth Climate Council  
Julie Barrett O'Neill - LISC  
John Whitney - Cornell Cooperative Extension  
Sydney Collins - Buffalo Sewer Authority  
Kelly Tyler - NYSERDA  
Nancy Smith - Western New York Land Conservancy  
Kyle Semmel - Western New York Land Conservancy  
Joy Testa Cinquino - Buffalo & Erie County Public  
Library - Central Library  
Hannah Holden - Erie County Social Services  
Andrew McLaren - County Executive's Office  
Deputy County Executive Maria Whyte -  
County Executive's Office  
Tracy Skalski - Erie County Environment & Planning  
Josh Wilson - Erie County Environment & Planning  
Commissioner Dan Castle - Erie County Environment  
& Planning  
Deputy Commissioner Bonnie Lawrence - Erie County  
Environment & Planning



## Thermal Vulnerability

Heat and cold waves claim more lives than any other weather-related event, and despite living in a relatively cool-climate region, residents of Erie County experience vulnerability to both extreme cold and heat. Research has shown that cool-climate communities like ours are even more vulnerable to high heat events than warm-climate communities.

Many homes in our community lack air conditioning. In low income neighborhoods, there is an abundance of older, less insulated housing, and there are many residents who have health problems that make them sensitive to heat. Urban residents in 'heat islands' are especially affected, along with rural residents in low quality manufactured housing. Through its roles in emergency response and health, the County currently has some programs in place to address extreme temperature events, including coordinating availability and outreach for cooling centers.

The Climate Vulnerability Assessment will evaluate the increasing threat of high temperature events, map areas that are especially vulnerable, and assess the County's ability to respond. To make our community more climate resilient, the County will need to plan and build out programs and interventions to address thermal vulnerability. The County can use its information about temperature-vulnerable households developed through its health and human services roles, and work with existing federal and state weatherization programs to target vulnerable households for insulation and weather sealing projects. Other programs might include guidelines to incorporate shading into the design of public spaces like bus stops and sidewalks, and incorporating more trees and other green infrastructure into urban spaces.

- **Provide direct support, assistance and coordination for local governments.**

The County serves a convening and leadership role for local governments. Many local governments lack the resources or expertise to address climate change, and there may be opportunities for the County to efficiently address these capacity gaps.

For example, using its Erie County Low Income Program for Sustainable Energy (ECLIPSE) grant, the County can leverage its buying power for the benefit of local governments, including the purchase of green energy or helping municipalities with a Community Choice Aggregation project. The County can also provide template legislation for municipalities looking to develop local laws, helping to align County and local planning efforts.

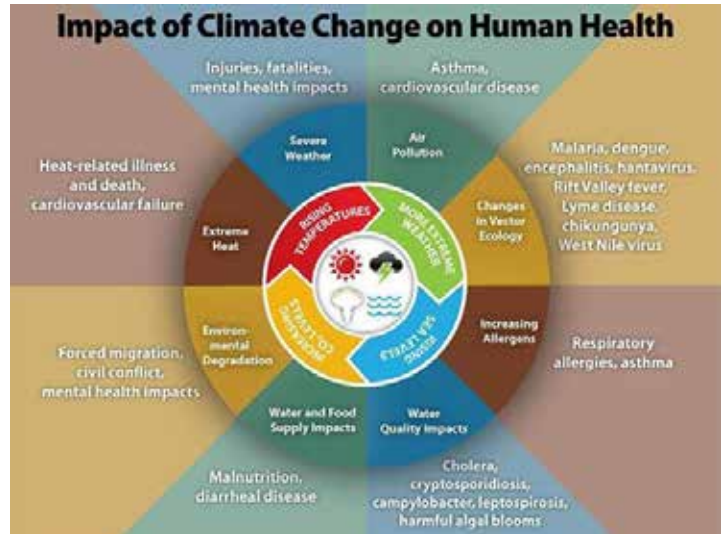
- **Provide pathways and programs for residents to increase energy efficiency and reduce their climate footprint.**

The County, across many of its operational areas, has deep interactions with the community – especially vulnerable populations. The County should ensure equitable distribution of resources when implementing the **New York State Climate Act**<sup>6</sup> for vulnerable populations in coordination with the **Live Well Erie**<sup>7</sup> framework, and social determinants of health. We recommend that the County create and uplift programs to assist residents to address sustainable housing, energy efficiency, renewable energy, electrification of transportation and building heating, food access, public transportation access, broadband, and agricultural programs by building on existing work by **PUSH Buffalo**<sup>8</sup> and other community-based organizations. The County also began work developing ECLIPSE - discussed in more detail in the Energy chapter. If ECLIPSE meets its goals, it will lower energy burden and improve access to renewable energy for low- and moderate-income residents participating in the Home Energy Assistance Program.

### **Climate Change Adaptation:**

While the County should continue to work to mitigate the impacts of climate change, it should plan and respond to the inevitable impacts of climate change at the same time. Our recent experiences with COVID-19 demonstrate how threats can have large and unintended consequences, and how planning and preparation, informed by the best science available, are key to protecting the community. Some things the EMC has recommended in the past to mitigate climate change, like adding bicycle infrastructure and localizing our supply chain, have also made us more resilient to the impacts from the COVID-19 pandemic, and will make us more resilient to climate change.

The County is already experiencing impacts from climate change, including more numerous high temperature events, increased incidence of tick-borne disease, and intrusion of invasive species. As extreme weather events increase, the occurrences of flooding, severe erosion, sedimentation and debris accumulation in stream corridors will also increase across all communities of Erie County. This results in escalating costs for repair, remediation and replacement of public and private infrastructure and the loss of riparian habitat. The need to adapt to climate change and build a resilient Erie County is urgent.



Source: <https://www.cdc.gov/climateandhealth/effects/default.htm>

In 2021, using funds from the New York State Climate Smart Communities program, the County began preparation of the Erie County Climate Vulnerability Assessment. The Assessment, which should be completed in late 2021, will help the County better understand climate threats to our community, and its capacity to respond to those threats.

County climate adaptation efforts must have a community focus, as well as leverage the County's primary role and significant expertise serving vulnerable populations. Many of the anticipated climate impacts, including extreme temperature events, disproportionately impact low income people and people of color. The County's efforts should explicitly support racially equitable climate adaptation. The effort should also address concerns that, due to our ample supply of fresh water, the region may deal with an influx of "climate refugees" from other areas.

**Regarding climate change adaptation, the EMC recommends that the County:**

- **Conduct comprehensive adaptation planning for the community, with a focus on protecting vulnerable communities.**



The ongoing Climate Vulnerability Assessment (CVA) project will help identify climate threats and the County's capacity to address these threats. The EMC recommends that the County build on the recommendations of the CVA by creating climate-threat-specific plans to address the identified threats. These plans need to include a focus on health and other impacts to vulnerable populations, especially people of color who will be disproportionately impacted by climate change, and should be informed by the County's experience responding to the COVID-19 pandemic. There should also be a focus on localizing supply chains to make the County more economically resilient. Adaptation planning should be conducted in close coordination with the County's public health and human services efforts, especially around the areas of thermal vulnerability and vector-borne disease.





## A Safe Home for The Gnomes

Overuse and misuse of garden chemicals can be harmful to humans, pets, wildlife and waterbodies. Collectively, residents control about 900,000 acres of lawn in New York alone - 75% of the managed turf in the state. The good news is there are many ways to care for your lawn that avoid putting family and neighbors at risk. Pledge to eliminate pesticides in your lawn including insecticides, herbicides (weed-killers, "weed and feed"), fungicides and other chemical pesticides and receive a free lawn sign to let your neighbors know that your lawn is healthy and safe.

To help make the Western New York community healthier, in 2017 the Erie County Environmental Management Council with assistance from the Cornell Cooperative Extension began a "Safe Home for The Gnomes" campaign to reduce the amount of chemicals used on area lawns. Receive a FREE lawn sign when you pledge to protect your family, pets, wildlife and waterbodies by having a pesticide-free lawn or eliminating use of pesticides on your lawn, and making your lawn a pesticide-free safe home for the Gnomes at: <http://erie.cce.cornell.edu/gardening/-erie-county-healthy-lawns-campaign>

The web site [www.erie.gov/healthy-lawns](http://www.erie.gov/healthy-lawns) also has resources on how to reduce pesticide use



- **Assure climate resilience of Erie County-owned infrastructure.**

The County maintains significant critical infrastructure, including roadways, wastewater collection and treatment, correctional facilities, buildings housing the County's staff, as well as manages numerous parks and forest lands. The County self-enforces building code for its infrastructure. For new building projects, anticipating climate change and building infrastructure that is resilient will be much less expensive than rebuilding existing infrastructure later. It is recommended that the County update planning guidelines and procedures to reflect anticipated or potential impacts from climate change, in order to lower future risks and costs.

## ECOSYSTEM HEALTH

Erie County has been actively involved in efforts to protect living infrastructure and enhance ecosystem health. These efforts include developing management tools such as the county-wide Natural Resource Inventory (NRI) which provides land use managers with tools for early warning and detection of biological stressors so corrective measures can be achieved in a time and cost-efficient manner. The County works with the Lake Erie Watershed Protection Alliance (LEWPA)<sup>9</sup> and other partners to identify opportunities for enhancing natural habitats including floodplains, woodlands, and wetlands along Lake Erie. The County has also helped the EMC to promote its Healthy Lawns Campaign called **A Safe Home for the Gnomes**, which encourages reduction in lawn chemicals. Additional County initiatives include habitat restoration projects along the Buffalo River, stormwater pollution prevention education, and invasive nuisance species outreach and education.



*Volunteers cleaning up at Higgins Natural Habitat Park*



The development of nature-based climate change solutions will strengthen our living infrastructure (see sidebar below) and build resilience into the Western New York region. Some strategies in County projects include stabilizing shorelines and improving habitat by repurposing mature tree root wads, and incorporating live native plant stakes. Shoreline modifications to create more gently sloped vegetated areas also filters and retains stormwater onsite, recharges the water table, and protects downstream habitats.

**Regarding Ecosystem Health, the EMC recommends that the County:**

- **Manage and boost plantings county-wide to increase our trees and native plants.**
  - Increase tree canopy within the County by partnering with municipalities to inventory street trees, apply for grant funding for trees, as well as for planting and maintaining street trees by amending our existing inter-municipal agreements (e.g. snow plowing).
  - Update the drafted 2003 County Forest Management Plan. This will guide proper forest management practices through sound ecological, economic, recreational, educational, and public safety considerations in anticipation of predicted climate changes.
- **Improve natural habitat for native species and pollinators**
  - Continue to work with community partners to grow native plant species for transplant throughout the region.
  - Work with partners to develop a pollinator corridor to increase pollinator densities and educate the public on the importance of pollinators for our food production.
  - Educate the public on both native plants and invasive species.

### Natural Resources Inventory

A Natural Resource Inventory (NRI) identifies and describes important naturally-occurring resources within a community, watershed or region. It provides the basis for land conservation planning, allows natural resource information to be included in local planning and zoning, and provides communities with a strong foundation for informed decision-making.

For communities considering techniques for protecting natural resources, a Natural Resource Inventory is a necessary tool for developing priorities. Explore this tool at [www.erie.gov/nri](http://www.erie.gov/nri).



Goats at Red Jacket, Let's Goat Buffalo!



Green Infrastructure Project

### Living Infrastructure

Living infrastructure refers to the network of natural systems and engineered systems, such as storm and wastewater practices, that affect ecological processes including the hydrological and nutrient cycles. Creating a robust living infrastructure strengthens a region's resilience to climate change.

**Robust living infrastructure fulfills the following conditions:**

- Harbors and supports indigenous flora, fauna, migratory species and pollinators
- Conserves and replenishes fresh water and protects and restores fertile soils
- Connects people to nature
- Employs strategies to eliminate or regulate impacts to climate, hydrologic cycles, nutrient flows, natural hazards, and pests.

# ENERGY

The EMC commends the County’s leadership on energy conservation and renewable energy. In particular, the County’s commitment to utilize 100% renewable energy for its electric operations by 2030 stands out as an ambitious and important goal, demonstrating the County’s willingness to lead by example. Erie County’s designation as a Clean Energy Community in 2019, its embarking on a large energy performance contract for County buildings in 2020, and the development of additional renewable projects on County properties completed in 2021, are examples of the County’s leadership in energy conservation and renewable energy.

## Renewable Energy Goals

Goal	Scope	Source
100% renewable energy in County buildings by 2030	Internal Operations	Erie County
70% renewable energy by 2030	Community-wide	NYS Climate Act
100% clean energy by 2040	Community-wide	NYS Climate Act

Even with this good progress, for the County to meet its goals<sup>10</sup> and the renewable energy requirements of the **New York State Climate Act**<sup>11</sup>, there will need to be an increased focus on energy efficiency and supply for the community. Poor quality housing, high utility bills and energy burden afflict many low-income residents. Moreover, addressing low-income community energy needs supports the County’s anti-poverty and health goals. Currently, the County has programs that address community energy for some populations, including those administered by the Home Energy Assistance Program and the Community Development Block Grant program, but the County’s Paris goals require a broader approach. For this reason, the EMC is very excited to see the County embark on the Erie County Low Income Program for Sustainable Energy project (ECLIPSE, see sidebar next page), and we encourage the County to push forward with strong community energy programs.

**Regarding Energy, the EMC recommends that the County:**

- **Advocate for local renewable energy projects while managing development pressures and implications of the accelerated New York State renewable siting law.**

It is important that the County assertively advocate for the broad community interest of renewable energy, including for the interest of low-income and minority County residents,



*New Solar Array on Woodward Avenue*

whose voices are almost never heard in discussions about siting of renewable energy projects, and who are most impacted by climate change. The County should engage these communities in siting discussions, and work to make sure the community is not misinformed about renewable energy.

This needs to be balanced with the recently enacted Accelerated Renewable Energy Growth and Community Benefit Act<sup>12</sup>, which will create a new, accelerated siting process by the summer of 2021. The law creates an urgent need for towns and villages to enact local renewable energy laws or otherwise risk

unfettered development that could damage important forests, headwaters, wetlands and farm lands. It is important that the County support a community education campaign aimed at local governments to support local renewable energy laws that balance the need for renewable energy development with important land use protections, prior to this recent New York State law taking effect. See Lesson 1 of the **One Region Forward 2020 Training Series**<sup>13</sup> for a presentation regarding the new siting process.

- **Leverage contracting capacity and first-hand experience/expertise to support municipal energy efforts.**

The County has gained significant energy related experience through their work with energy performance contracts, electric vehicle infrastructure, LED lighting, green procurement, and renewable energy development. It is recommended that the County share its expertise and experience about green energy and energy efficiency with local governments. Additionally, we recommend that the County uplift and support organizations already doing work in this arena such as the **University at Buffalo Regional Institute (UBRI)**<sup>14</sup>, **People United for Sustainable Housing (PUSH) Buffalo**<sup>15</sup> and others.

- **Develop community programs to address energy efficiency, renewable energy, and energy burden.**

Historically, the County has had a limited but important role in addressing community energy use. To address community-wide Paris Climate goals, it is critical the County have a focused effort on community energy at a broad level, coordinated with existing New York State programs. The EMC strongly supports the ECLIPSE program's focus on developing a community energy program (see sidebar). The EMC also recommends the County support education for businesses and residents about existing programming through participation in NYSERDA's Clean Energy Communities Campaigns for Community Solar, Home Energy Efficiency, Clean Heating & Cooling, and Electric Vehicles. Public education should leverage existing contact with the community through the County's human services work, and should also work with existing community networks to facilitate information dissemination. Where applicable, the County should provide informational materials to help residents and business owners navigate this complicated landscape.



*Insulation in Old County Hall*

## **Erie County Low Income Program for Sustainable Energy Project (ECLIPSE)**

In 2020, Erie County's Departments of Environment and Planning, Social Services and Public Works kicked off a NYSERDA funded project to create a community scale energy program to spur local energy-related economic development, increase use of green energy in the community, and reduce the high energy cost burden that afflicts low income households. ECLIPSE will extend the benefits of Erie County's bulk energy purchasing efforts to municipal, residential and small commercial customers. It will also drive collaboration between departments that provide energy and environmental services to reduce disparities across populations facing high energy burdens.



## **Clean Energy Communities Program**

Local governments in New York State can use the Clean Energy Communities program to implement clean energy actions, save energy costs, create jobs, and improve the environment. In addition to providing tools, resources, and technical assistance, the program recognizes and rewards leadership for the completion of clean energy projects. The program is competitive and is currently in its second round.

For more information, visit:

<https://www.nyserra.ny.gov/All-Programs/Programs/Clean-Energy-Communities/How-It-Works>



# HUMAN HEALTH AND ENVIRONMENTAL JUSTICE

Toxic hazards in Erie County pose threats to the quality of our environment and the health of our residents. While some hazards originate from industrial toxic releases, others are embedded in older housing stock and abandoned sites near residential communities. As an area with a long industrial history, Erie County must work hard to better ensure the health of its citizenry and a toxic-free future.

**Hazardous Sites:** The New York State Department of Environmental Conservation lists 94 "Active" County sites in its **Environmental Site Remediation Database**<sup>16</sup> as of July 20, 2021. These are sites deemed to be posing a threat to the public where remediation activities are planned or taking place, but are not complete. Additionally, another 395 sites are classified as either under investigation or considered to no longer pose a threat to public health.

**Industrial Emissions:** Ongoing toxic releases from industry are another threat to the County's public health and the environment. Recent data from the US Environmental Protection Agency shows that Erie County is home to 61 facilities that reported over one million pounds (1,017,552 lbs.) of toxic releases either into the local environment or transferred off-site in 2018 alone. Nearly 70% of these releases (710,301 lbs.) were released directly into local environments. The two largest polluters among these facilities, 3M and Dupont, are located near one another and account for 506,029 lbs. (71%) of the **local on-site releases**<sup>17</sup>.

**Unequal Exposure:** Remediation sites and industrial emissions are not distributed evenly across the County. Some communities are home to greater risk than others. The greatest risks are in Buffalo, Lackawanna, and Tonawanda - communities with long histories of industrial activity. Within these communities, hazards are often clustered. People who live adjacent to, nearby or downwind from these hazards face an increased risk of adverse health impacts. Research on toxic hazards outside of Erie County show that populations of people who live nearby are more likely to experience higher rates of various health problems including:

- low birth weights
- birth defects
- immune system disorders (such as Lupus)
- cancers of various types
- respiratory illnesses.



A graphic for the Recycle Coach app. On the left is a smartphone displaying a QR code and the text "Download the app". On the right is a laptop displaying the website "www.erie.gov/recycling" and the "recycle coach" logo. Below the devices, the text reads "RECYCLE COACH ERIE COUNTY'S RECYCLING SOLUTION". At the bottom, it says "Find a calendar of your trash & recycling days.. Learn more about recycling... Get community specific answers for recycling all sorts of stuff... Download the free app or find it online".



*Household Hazardous Waste Event in the Rain*



Hazards are also not distributed equally across the socio-economic landscape. People with lower incomes and people of color face much greater risks of **health complications imposed by these hazards**.<sup>18</sup> Erie County residents living in older housing stock are more likely to be exposed to the dangers of lead from **lead-based paints and from lead plumbing**.<sup>19</sup> Lead has been shown to affect the development of fetuses and have behavioral and health impacts on both adults and children. Children are at particular risk of suffering long-term cognitive development effects. Racially biased income disparities in Erie County put people of color at particular risk of health threats **related to lead**.<sup>20</sup>

The outcomes of these inequities are evidenced by **social determinants of health**.<sup>21</sup> According to the Buffalo Center for Health Equity 2019 Report *Building a Culture of Health & Ending African American Health Disparities*:

*The health inequities affecting African Americans in Buffalo, like in many American cities, are the downstream effect of failing schools, high unemployment, low property values, poor access to public transportation, absence of grocery stores, lead contamination in homes, highway pollution, brownfields and poor access to healthcare. These social and economic conditions are known to be the primary drivers of health.*

Environmental hazards in Erie County not only threaten public health and environmental quality, they are issues of environmental and racial justice that impose disproportionate impacts across the social and geographic landscape. Erie County must strive to ensure safe places to live, work, and play for all residents regardless of income or color.



“flammable”, “toxic”, or “corrosive.” These include pesticides, solvents and fuel. These consumer products are often disposed of in an unsafe manner. Improper disposal of HHW can include pouring them down the drain, on the ground, into storm sewers, or in some cases putting them out with the regular trash. The dangers of such disposal methods might not be immediately obvious, but improper disposal of these wastes pollutes the environment and poses threats to human health.

## Environmental Justice

**Environmental Justice** is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This goal will be achieved when everyone enjoys:

- the same degree of protection from environmental and health hazards, and
- equal access to the decision-making process to have a healthy environment in which to live, learn, and work.
- Social Determinants of Health

### What are social determinants of health?

Social determinants of health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

Social determinants of health (SDOH) have a major impact on people's health, well-being, and quality of life. Examples of SDOH include:

- Safe housing, transportation, and neighborhoods
- Racism, discrimination, and violence
- Education, job opportunities, and income
- Access to nutritious foods and physical activity opportunities
- Polluted air and water
- Language and literacy skills

SDOH also contribute to wide health disparities and inequities. For example, people who don't have access to grocery stores with healthy foods are less likely to have good nutrition. That raises their risk of health conditions like heart disease, diabetes, and obesity — and even lowers life expectancy relative to people who do have access to healthy foods<sup>22</sup>.

Certain types of HHW can cause physical injury to sanitation workers, or if poured down drains or toilets, can contaminate septic tanks or wastewater treatment systems. They can also present hazards to children and pets if left around the house.

***Erie County has worked to address many of these issues in the past and the EMC recognizes the County's good work on:***

- Establishing a new office of Health Equity within the Erie County Health Department.
- Erie County Departments of Health and Environment & Planning working on lead (Pb) in partnership with the Community Foundation for Greater Buffalo.
- Erie County's Brownfield Program, such as the current project at Bethlehem Steel, have re-claimed former industrial land, which also prevents suburban sprawl and discourages green space development.
- Erie County Health Department enforcement of the Neighbor Notification Law. This law requires lawn care companies to notify neighbors prior to pesticide application. This allows neighbors to close their windows or bring in items which may be contaminated by drift.
- Erie County's Household Hazardous Waste Program provides for safe disposal of hazardous chemicals and materials. In 2021 this program was expanded and now includes both single-day events and a voucher program that allows residents to dispose of these materials year-round at a facility in Tonawanda.

***Regarding Human Health and Environmental Justice, the EMC recommends that the County:***

- **Create a citizen friendly website regarding hazardous sites and industrial emissions.**

The people of Erie County are entitled to know the types and amounts of toxics hazards in their communities as well as the risks they bring. The page should provide an interactive map of known hazards and be updated annually, providing links to the health risks of each reported substance. The page should report updates on the status of New York State Department of Environmental Conservation designated remedial sites. The page should provide citizens with information on lead safety, remediation resources, legal rights, and actions they can take to create a safer home environment. This map could be added to or modeled after the County's current **Natural Resources Inventory interactive map**<sup>22</sup>.

- **Direct federal recovery resources toward those areas that carry the greatest need for public health intervention.**



In the case of lead hazards, the County could use housing data and field observations to identify neighborhoods most at risk from lead paint and lead plumbing. Additionally, the County could incorporate social and demographic data to assess how lead risks are distributed socially and geographically.

- **Create a chemical disposal/reduction education program for existing County programs.**

Use existing County methods of communication, such as County electronic newsletter, website, social media, emails, and press releases to educate the public on how to reduce their chemical use. Topics could include proper storage and disposal, reducing pesticide use, label reading, and safe alternatives.

# LAND USE AND ERIE COUNTY LAND

Land use decisions have both an immediate and long-term impact on the quality of the air we breathe, the water we drink, and the way in which we live, work, commute and recreate. As a home rule state, local municipalities in New York have control and authority in their jurisdictions to make rules and decisions concerning a wide range of land use issues. These decisions affect the total health of the entire Western New York bioregion. Despite this, there are opportunities for Erie County to advance land use practices that will lead to greater stability and resiliency for our communities. For example, the County reviews local planning/zoning actions and often provides recommendations to the local municipality.

Erie County also manages approximately 11,000 acres of land that are in the cities, towns, and villages through-out Erie County. With its far-reaching land portfolio, the County not only has the duty to administer responsible land use decisions that support and enhance good stewardship practices, it also has a powerful opportunity to demonstrate how land use practices can further enhance ecosystem health which will lead to greater resiliency for the Western New York region from both the effects of climate change and crisis-level events.

The EMC commends Erie County for creating a Deputy Commissioner of Recreation position in the Department of Parks, Recreation & Forestry, which serves as the point of contact for community groups to partner with the Department. Leveraging partnerships has resulted in excellent Parks projects in the past and is even more important now with the economic impact of the pandemic. Moreover, Erie County is implementing its updated Parks Master Plan, which includes best practices like low-mow, no-mow and natural regeneration areas in the Parks.



Como Lake Park Natural Regeneration Area

*Regarding Land Use and Erie County Land, the EMC recommends that the County:*

- **Invest in and use Erie County's land portfolio for developing and implementing natural solutions and sustainable land use decisions to address crisis-level events such as the growing impact of climate change, the COVID-19 pandemic and the extinction crisis.**

Erie County maintains a large portfolio of properties across diverse landscapes, including agricultural, forest, beach, waterfront, high elevation, suburban and urban settings. This biodiversity places Erie County in a prime position to demonstrate

best land use practices such as nature buffers, no or low mow areas, greenspace set asides, and forestry management; as well as introduce nature-based solutions (see sidebar next page) to climate change, such as tree, native plant, and pollinator plantings.

- **Use Erie County's land portfolio to develop and implement a regional approach to sustainability.**

The COVID-19 pandemic has revealed how our socio-economic system can be severely disrupted by a crisis-level event. These types of disruptions can be especially devastating for the poor and underserved communities throughout the Western New York region.

## Nature-Based Solutions

**Nature-based solutions** to climate change, sometimes called “natural climate solutions,” involve conserving, restoring, or better managing ecosystems to remove carbon dioxide (CO<sub>2</sub>) from the atmosphere. Examples include allowing forests to regrow, restoring coastal wetlands, and switching to restorative agricultural practices, such as cover crop rotation, that support healthy soils. These ecosystems reduce climate change by capturing CO<sub>2</sub> from the air and sequestering it in plants, soils, and sediments. They also provide a wide range of other important benefits, such as cleaner air and water, economic benefits, and increased biodiversity.<sup>25</sup>

### Important Partners and Resources

There are many excellent area organizations, entities and plans that support sustainable land use. The County already works with them on a regular basis and they play an important role in land use projects.

- **Erie County Soil and Water Conservation District:**  
<https://www.ecswcd.org/>
- **Lake Erie Watershed Protection Alliance:**  
[www.erie.gov/lewpa](http://www.erie.gov/lewpa)
- **Agricultural and Farmland Protection Plan:**  
[www.erie.gov/agriculture](http://www.erie.gov/agriculture)
- **Cornell Cooperative Extension of Erie County:**  
<http://erie.cce.cornell.edu/>
- **Erie County Climate Action and Sustainability Plan:**  
[www.erie.gov/casp](http://www.erie.gov/casp)
- **Erie County Parks and Forestry Management Plans:**  
<https://www2.erie.gov/environment/2018-parks-master-plan-update-0>
- **WNY Regional Sustainability Plan:**  
<http://www.regionalcouncils.ny.gov/sites/default/files/2018-04/Western-NY-CGC-Plan-Report.pdf>
- **One Region Forward:**  
<http://www.oneregionforward.org/>



*Ellicott Creek Park Low Mow Signs*

However, with its land portfolio, Erie County has an excellent opportunity to lead the sustainability movement in Western New York. The County is encouraged to explore and develop a regional approach to sustainability. For example, by using newly secured land in the Town of Evans for the creation of an agribusiness park, Erie County can model sustainable approaches to growing, manufacturing and production; demonstrate how to secure and protect agricultural, natural, and sensitive lands from development; work with municipalities to ensure the proper location of large-scale utility grade energy generating systems; and, improve and protect water quality by working with municipalities to ensure the entirety of our waterways are monitored and protected.

## SOLID WASTE

Erie County is actively working to reduce waste and increase recycling and food composting in its internal operations. For example, the County recently completed the construction of a compost facility at the Alden Correctional Facility that was funded by a New York State Department of Environmental Conservation grant. Efforts are underway to expand the compost program so that it can receive food waste from other County buildings.

The County is also working with municipalities through the Erie County Solid Waste Management Board to promote waste reduction, reuse, recycling and composting to residents. For example, the County is educating the public about reducing single-use plastic consumption, specifically plastic packaging, straws, clam shells, film and polystyrene. One element of that education is the Plastic Pollution Prevention through Art Program, which works with students to create artwork about single-use plastic pollution that are then displayed at the Buffalo Museum of Science.

In addition, the EMC is working with the County and other partners to reduce waste by promoting the use of reusable shopping bags. Outreach includes giving reusable bags to low-income residents and working with the BYO Coalition to promote How to Make Your Own Bag from a T-shirt at: [www.erie.gov/byobag](http://www.erie.gov/byobag). The EMC commends the County for all these efforts.



Even with outreach and education, collection and disposal of solid waste is a growing challenge for local municipalities. Following the many measures taken to stop exposure to COVID-19, it is expected that there will be an increase in solid waste with a corresponding increase in disposal costs. For example, one impact from social distancing is the expansion of take-out meals by restaurants that were closed to inside dining. Takeout food is often packaged in plastic containers and include single-use disposable plastic tableware. All this plastic packaging and tableware will ultimately end up in a landfill or contaminating the recycling stream. In addition, changing markets have interrupted the recycling system resulting in more materials going into landfills. This has led to public confusion on what is recyclable and why certain items are no longer accepted. In response, Erie County Solid Waste Management Boards are promoting the use of RecycleCoach, a phone app that provides users with customized updated pickup schedules and guidance on recycling right.

**Regarding Solid Waste, the EMC recommends that the County:**

- **Develop regional partners and practices. For example, the County could:**
  - Create a standardized list of recyclables for all municipalities across the County. The County can take a leadership role by convening a regional task force including municipalities and regional governments as well as waste industry leaders from Modern Disposal and Waste Management. A standardized menu of recyclables will enable the County to put out clear and correct information that will help residents recycle properly. This will reduce the amount of material taken to landfills, keep the cost of solid waste management down, and build a more sustainable Erie County. The adoption of RecycleCoach as a tool can be built upon to clarify materials for a unified menu of materials.
  - Call for a regional comprehensive plan for composting food and yard waste with state and regional involvement, including the development of local solutions and template regulations



Compost Site at Alden Correctional Facility

and partnerships with regional farmers with anaerobic digesters to process food waste. According to the EPA, food and yard waste make up more than twenty-seven percent of municipal solid waste.

Additionally, starting in 2021 DEC will not allow producers of two tons or more of food waste per week to dispose of it as garbage. Alternative waste disposal methods like composting are needed and the County has a leadership role to play by building on the success of the establishment of the Alden Compost Facility and the new LeanPath food waste initiative (see sidebar).



## Leanpath

### LeanPath Project

Erie County's NYSDEC funded LeanPath Project aims to develop effective programs for businesses and institutions to address food waste via reduction, diversion, donation, and disposal. Four participating sites, Millard Fillmore Suburban Hospital, Buffalo General Hospital, HighPointe on Michigan, and Erie County Medical Center, are using LeanPath software to track the food waste that is produced in their kitchens. LeanPath data is then used to determine food waste prevention opportunities, so that process improvements can be made.

### Connection Between Solid Waste and Climate Change

Solid waste becomes greenhouse gasses. For example, if organic waste such as food and yard waste is sent to landfills, it creates methane. Methane is an even more potent greenhouse gas than carbon dioxide. Instead, solid waste should be reduced, and food waste should be recycled through composting and biodigesters.

- **Support laws and policies that reduce single-use waste and promote materials recovery. For example:**

- Support materials recovery by adding glass wine and liquor bottles to the New York State Bottle Bill. The Bill has successfully reduced roadside litter by 70 percent. Over five billion beverage containers were recycled in 2016 at no cost to local governments. Expanding the type of products included in the Bottle Bill will build a more sustainable New York and incentivize the reduction of solid waste going into landfills. Adding wine and liquor bottles to the Bottle Bill should have a great impact on the entire recycling industry. As glass is collected as part of the “single stream” recycling program, it mostly gets broken and contaminates the plastic and paper that can be recycled and also damages the machinery that sort the collected recyclables.
- Support legislation that reduces single-use plastic packaging such as bags, straws, and clam shells. Banning single-use plastic will prevent millions of tons of plastic from entering the waste stream each year. In addition to harming wildlife and damaging the environment, some plastics can be unsafe for people. Reducing single-use plastics can benefit the economy by stimulating the development of new products that do not harm the community and environment.
- Protect the newly enacted Expanded Polystyrene Foam Ban for Styrofoam containers and packing peanuts which takes effect in January 2022. Styrofoam, which is often used for food packaging, becomes unsafe when heated by transferring chemicals to the food heated in the container. In addition, Styrofoam pollutes waterways and easily breaks into small bits which are eaten by small land and aquatic organisms.
- Encourage the Product Stewardship Council to address plastic waste. Plastic is ubiquitous within our community. To build a more sustainable New York, the life cycle of plastic products, including end-of-life management, must be addressed. Producers should be made responsible for the products they produce by shifting the cost of plastic waste management from the consumer to the producer.



*Fifty Pounds of Household Hazardous Waste*

# TRANSPORTATION

Transportation is the largest source of greenhouse gas emissions in Erie County. Fortunately, with control of 1,200 miles of roadway, the County exerts more control over transportation than any other source of emissions. Over the past few years, the County has made significant progress on transportation, and the EMC commends Erie County for its role in:

- **Membership in the GO Buffalo Niagara Transportation Management Association,**<sup>26</sup> which encourages Erie County employees to utilize low-emission transportation options;
- Participation in the **Greater Buffalo Niagara Regional Transportation Council's Regional Bicycle Master Plan**<sup>27</sup> and other **Moving Forward 2050**<sup>28</sup> regional transportation plan initiatives;
- Installation of 14 public electric vehicle charging stations in County parks and at SUNY Erie;
- Modernization of the County fleet, including purchase of seven hybrid electric vehicles; and
- Support of NFTA's bus electrification efforts

When COVID-19 quarantine measures took effect in Erie County, the community had a chance to witness what our cities and towns would look like with fewer cars. Air quality improved, streets were quieter, emergency rooms saw fewer accidents, and many residents took up alternative forms of transportation. Sales of bicycles climbed and neighborhoods became more walkable. For many residents, this engendered more awareness of the unintended, often negative consequences of our dependence on cars, and the need for alternative forms of transportation.

The traditional model for transportation greenhouse gas reductions is to reduce the number of vehicle miles travelled, increase fuel efficiency, and power transportation with renewable energy. Often, vehicle electrification is held up as the dominant approach. Electric vehicles fueled by green energy certainly address climate change, and electric cars, trucks and buses play an important role in the transition to a low carbon economy. But, fundamentally, the EMC believes that the County should emphasize creating Complete Streets (see sidebar) that serve pedestrians, bicycles, buses and more. Moreover, the EMC sees that we need to build out a robust system of public transportation, and that we will have missed an opportunity if we focus on electrifying our existing transportation system without creating communities that are less centered around cars. There are also opportunities to create more sustainable work arrangements, such as telework and compressed work week schedules.



## What Are Complete Streets?

**Complete Streets** are streets for everyone. They are designed and operated to prioritize safety, comfort, and access to destinations for all people who use the street, especially people who have experienced systemic underinvestment or whose needs have not been met through a traditional transportation approach. Complete Streets make it easy to cross the street, walk to shops, jobs and schools, bicycle to work, and move actively with assistive devices. They also allow buses to run on time and make it safe for people to walk or move actively to and from train stations.

There is no singular design prescription for Complete Streets; each one is unique and responds to its community context. A Complete Street may include: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more.

A Complete Street in a rural area will look quite different from a Complete Street in a highly urban area, but both are designed to balance safety and convenience for everyone using the road.<sup>30</sup>



*Tactical Cycling, Buffalo, NY*



We need a more effective and reliable multi-modal public transportation system that provides equitable access to jobs, housing and an improved quality of life for all of our residents, including low-income residents, people of color, and the other-abled. Furthermore, valuable public space is devoted to roadways and car parking, because cars require much more space than other transportation modes. As we update our transportation systems, reducing use of cars will allow us to reclaim this public space. Development must also be oriented around all modes of transportation, including pedestrian, bicycle and public transit. To this end, we urge the County to be a leader in the community by siting or placing its operations to facilitate low impact modes of transportation.

Finally, our transportation infrastructure must be green infrastructure, designed to contribute to our resilience to climate change, and designed to protect our waterways from stormwater impacts. Green roadways with trees and plantings can help absorb the impact of storm events, reduce urban heat and protect biodiversity. Roadways with permeable (porous) pavement and features like bioswales absorb stormwater, reduce impacts on waterways, and help address the County's watershed management goals.

*Regarding Transportation, the EMC recommends that the County:*

- **Work with regional partners to develop an equitable, zero-emission, multi-modal transportation system (including points beyond Erie County's borders).**

The County should work with the Niagara Frontier Transportation Authority, the Greater Buffalo Niagara Transportation Council, electric utilities and other community partners to expand metro services through zero emission regional light rail services and other enhanced public transportation options like bus rapid transit. We support continuing to add electric vehicle infrastructure at County facilities and public libraries, including rural locations, to encourage the adoption of electric vehicle use. Finally, County transportation investments should have an emphasis on infrastructure for bicycling and walking. To this end, the County should work with municipalities to incorporate appropriate Complete Streets treatments to County roadways through implementation of the **Greater Buffalo Niagara Transportation Council's Regional Bicycle Master Plan<sup>29</sup>**.



*Frederick Lawn Gnomested Catching the Metro*

- **Support local communities as they transition to a green, low carbon transportation system.**

Many roadways in Erie County are controlled by local governments. The County should support local governments, share design, policy and implementation guidance for green measures, such as incorporation of Complete Streets amenities, guidelines and model legislation for LED street lighting, Smart Cities technology, electric vehicle infrastructure, and equitable access to transportation. The County should work with local governments to locate jobs and services in locations that are accessible to public transit and other alternative transportation modes. The County should also continue to work with Greater Buffalo Niagara Regional Transportation Council, Niagara Frontier Transportation Authority (NFTA), New York State, local governments, and community stakeholders to assure





*Electric Vehicle at Chestnut Ridge Park*

that transportation investments are coordinated, and emphasize accessibility, equity, public transit, and Complete Streets goals. Finally, the County should work with local communities to promote sustainable work arrangements for their staff that reduce commuting travel.

- **Reduce transportation emissions from County operations.**

Although the County has leased and purchased some electric and hybrid vehicles, we encourage the County to set goals and create policy to replace the County's fleet of gas-powered vehicles with electric-powered, and to lead the community on this issue. This will greatly reduce County greenhouse gas emissions, and may also reduce fuel and maintenance costs. Some existing heavy-duty vehicles might be suitable for electric retrofits, and new heavy-duty electric vehicles are becoming more available and economical. Sheriff's

patrol cars may be a particularly good opportunity because of their high idling rates, and leading manufacturers are now providing purpose-made patrol cars with hybrid electric drive-trains. Finally, many County employees are reimbursed for extensive use of personal vehicles for their work, at a cost of more than \$1M per year. The EMC recommends that the County reduce emissions from reimbursed personal vehicle travel. Solutions could include providing EV chargers in staff parking areas, increased reimbursement for EV drivers, and offering EV fleet vehicles for staff use. Finally, the County should promote sustainable work arrangements for staff that reduce commuting travel, such as telework and compressed work week scheduling.

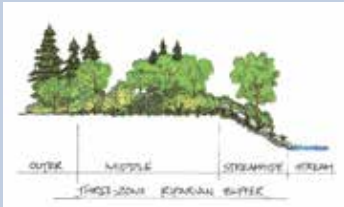


*Freddie Ready with a Charge*



## Green Infrastructure

**Green infrastructure** is a group of stormwater management and treatment practices designed to infiltrate and/or reuse stormwater using soils and vegetation, rather than pipes and storage structures. Common green infrastructure approaches include porous pavement, green roofs, trees, tree boxes and infiltration planters, rain gardens, vegetated swales, pocket wetlands, vegetated median strips, cisterns, reforestation, and protection and enhancement of riparian buffers and floodplains.



## Riparian Buffers

**Riparian buffers** are strips of vegetation (trees, shrubs or grass) located next to streams or other waterbodies. By planting vegetation along streams, space is created between the water and upland land uses, which helps protect the water quality and stream habitat.

*Riparian buffers provide the benefits of:*

- stabilizing streambanks,
- erosion and sediment control,
- habitat and food for wildlife and pollinators,
- shade for streams, filtration of nutrients and other pollutants in runoff, and reducing the impact from floods by **increasing water infiltration**.

(<https://www.dec.ny.gov/chemical/106345.html>).

# WATER

Water is essential and fundamental. Available clean water is necessary for all life including biological processes (metabolism and waste elimination); industrial production; home life and landscapes; navigation; and recreation. It is a driver of sustainability and economic prosperity. In Erie County, we live on a Great Lake and water is plentiful, but it should not be taken for granted.

Impacts to water quantity and quality make it a resource that requires conservation and protection in order to sustain its availability for use. Water is connected and integral to land use, transportation and ecosystem management which makes it particularly susceptible to impacts from how we plan, operate, and manage our developed/built and natural environments. Water is polluted by human waste from biological processes through undersized wastewater treatment facilities, combined sanitary sewer overflows, failing septic systems, and contaminated stormwater runoff; by industrial production through discharges of chemicals and heated water from manufacturing, as well as by pesticides, excess nutrients, and pathogens from agriculture. Water is also polluted by a variety of residential, recreational and commercial practices.

Climate change is compounding impacts to **water quality and quantity**.<sup>31</sup> More frequent intense storms are causing extreme heavy rainfall events that increase soil erosion and movement of pollutants. Weather patterns are predicted to become more variable which could include periods of drought followed by **wet weather**.<sup>32</sup> Heavy rainfall after a period of drought can reduce water infiltration and increase runoff, flushing accumulated pollutants and sediments, which lead to increased turbidity and **contaminant concentrations in waterbodies**.<sup>33</sup> These extreme pollution events coupled with warmer water temperatures may result in water fouling events such as harmful algal blooms.

Climate change is also expected to cause **periods of drought**.<sup>34</sup> In Erie County, there are both residences and agriculture operations that depend on groundwater supplies, not Lake Erie. Drought and lack of aquifer recharge can leave rural landowners without adequate water supply. It is important that communities, particularly rural communities, adapt and plan for resiliency to ensure a clean and steady supply of water in a changing climate.

Appropriate use of land and understanding upstream and downstream connections to natural ecosystems is critical to conserving and protecting water resources. Best practices should be incorporated into land use for green infrastructure, riparian buffers, and conserving forests near water sources. Improving absorption and water filtration will help to prevent devastating downstream flooding and erosion.





Buffalo River

Promoting a cultural shift in thinking about how we manage our lives for the protection and sustaining of our water resources is paramount. Education is key to making change. Several organizations are hard at work in Erie County to educate the public, private business, and government on water issues; and they are assisting with programs and projects to implement best water protection and conservation practices to ensure clean available water. It is important that they continue their work and receive County support.

- **Promote the concept of Living Infrastructure in comprehensive planning and decision-making.**

Partner with other organizations, such as UB Regional Institute and One Region Forward, to promote the municipal use of the concept of Living Infrastructure in comprehensive planning and decision-making to mitigate the impacts of increased stormwater runoff through trainings and workshops.

Appropriate planning for stormwater attenuation can mitigate impacts from flooding, capture stormwater pollutants, and build the resilience of water supply and availability by enhancing recharge to the hydrologic system.

- **Promote and implement green infrastructure practices**

Erie County should seek green infrastructure opportunities at its facilities and continue to assist Municipal Separate Storm Sewer communities in implementing green infrastructure projects. Outreach field day events and/or presentations should be organized to showcase such projects to municipalities, stakeholders, and the public.

- **Use best management practices on County road ditches.**

Revamp the Erie County Highway Department's procedures for cleaning, reshaping and vegetating road ditches to meet the municipal stormwater maintenance requirements for reducing soil erosion, improving visibility and safety, and reducing future maintenance. This effort should build upon Erie County Soil and Water Conservation District's hydroseeding initiative<sup>35</sup> which partners with Erie County Highway to vegetate cleaned road ditches.

## List of Water Quality Organizations

*Local partner and environmental groups include:*

- **Buffalo Niagara Waterkeeper:** <https://bnwaterkeeper.org>
- **Buffalo Sewer Authority:** <https://buffalosewer.org>
- **Erie County Cornell Cooperative Extension:** <http://erie.cce.cornell.edu/>
- **Erie County Soil and Water Conservation District:** <https://www.ecswcd.org>
- **Erie County Division of Sewerage Management:** <https://www.erie.gov/dsm>
- **Erie County Water Quality Committee:** <http://ecswcd.org/html/ecwqc.html>
- **Lake Erie Watershed Protection Alliance:** [www.erie.gov/lewpa](http://www.erie.gov/lewpa)
- **Tonawanda Creek Watershed Committee:**  
<https://www.facebook.com/pages/Tonawanda-Creek-Watershed-Committee/139510572866742>
- **WNY Stormwater Coalition:**  
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Clear Lake

# CONCLUSION

Erie County has shown adaptability in the face of the COVID-19 global pandemic, **but the EMC recognizes its impact on County operations, our environment and the people of Erie County.** Our 2021 recommendations come on what is thought to be the heels of that crisis **with hope for an opportunity to do more for our people and planet.** The recommendations within this report are detailed. However, they can be summarized and organized as follows.

## **Climate Change:**

Create an **equity-focused Climate Action Plan.** It is important that Erie County plan for how to mitigate climate change and address the effects of climate change; while considering **the County's role in protecting those most vulnerable to the impacts of climate change.**

## **Energy:**

Develop and support programming to **help local governments and their residents reduce energy consumption** and transition to renewable energy. Erie County should also work to **balance clean energy needs with agricultural protections.**

## **Human Health and Environmental Justice:**

Allocate resources to address **lead issues in housing** throughout the County, and **educate the public** about site specific health risks in the community related to **lead, brownfields, toxic waste, and everyday household chemicals.**

## **Land Use:**

**Use County owned properties to address sustainability issues,** and implement **nature-based climate solutions** that include expanded tree plantings, fostering natural habitats, and **using living infrastructure where possible.**

## **Solid Waste:**

Work to **develop standardized practices for composting and recycling throughout the County.** Support laws and policies that **reduce single use plastic,** and **bottle bills** for deposit or recycling **wine and liquor bottles.**

## **Transportation:**

Work with regional partners to **develop an equitable, zero emission, and multi-modal public transportation system** that includes strategically implementing **Complete Streets treatments on County highway projects.** We also recommend reducing transportation emissions from County operations through **vehicle electrification and remote work options.**

## **Water:**

Work with regional partners **to promote living infrastructure in local watersheds** and seek opportunities to **implement these projects on County properties.**

The EMC urges County leaders to continue to **invest in the protection and restoration of our people and environment.** Prioritizing this work is an opportunity to **improve our environment for the current and future generations,** and improve economic prosperity and quality of life to **foster a place where people want to grow their future.**



# ENDNOTES

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## ENDNOTES

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