County of Erie County

Department of Environment & Planning

Division of Environmental Compliance Services

MEMORANDUM

To: BETTY JEAN GRANT
Chairperson, Erie County Legislature

From: MARIA WHYTE
Commissioner, Environment and Planning

Date: October 10, 2012

Re: Erie County Environmental Management Council – 2012 State of the County Environment Report

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Attached for your review and consideration is the 2012 State of the County Environment Report prepared by the Erie County Environmental Management Council (ECEMC). As required by Section 23-A-03 of the Erie County Charter the ECEMC compiles an annual State of the Environment Report for submission to the County Executive and the Legislature by September 30th of each year. This year's 2012 Report was approved by the EC EMC on September 18, 2012.

Please forward this correspondence to the Energy and Environment committee for their review and filing. We will contact Legislator McCracken and the clerk of his committee to set up the opportunity for the Chair of the ECEMC and some of the members to attend a future committee meeting to discuss their 2012 findings and recommendations.

Thank you.

Erie County Environmental Management Council

Evelyn Hicks
Chair

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October 1, 2012

Erie County Legislature
92 Franklin Street, 4th Floor
Buffalo, New York 14202

RE: 2012 Erie County State of the Environment Report

Dear Honorable Legislators:

As required by Section 23-A-03 of the Erie County Charter, we have attached the 2012 State of the Environment Report and Summary of Progress approved by the Erie County Environmental Management Council (EC EMC) on September 18, 2012.

The State of the Environment report is a comprehensive look at the health of the County's natural environment. It was prepared by the volunteer members of the EC EMC who work to improve the County's environmental, ecological, human and economic health. Staff and unpaid interns from the Department of Environment & Planning worked with EC EMC to prepare the report.

In September 2013 and annually thereafter we will prepare and transmit to you an update on the state of the environment in Erie County and new or amended priorities based on the latest State of the Environment report.

We look forward to continuing our work with you on issues that preserve our natural resources for future generations, improve the quality of the County's environment and, in doing so, the quality of life in Erie County.

Sincerely,

Evelyn Hicks
Chair, Erie County Environmental Management Council
Town of West Seneca Representative

cc: Honorable Mark Poloncarz

On behalf of the members of the Erie County Environmental Management Council:

Jerold Bastedo, At-large
Peter Sorgi, At-large
Rosa A. Gonzalez, At-large
Paul Furhmann, At-large
James Simon, At-large
George Besch, At-large
Jill Jedlicka, At-large
Jay Burney, At-large
Douglas Bartlebaugh, (T) Alden
Conn Keough, (T) Amherst
Don Owens, (T) Aurora
Richard Lee, (T) Boston
Hon. Len Pero, (T) Brant
Dennis Sutton, (C) Buffalo
Jennifer Logan-Wiertel, (T) Clarence
Michelle Roberts, (T) Colden
Lamont Beers, (T) Eden
Fred Streif, (T) Elma
Jere Hoisington, (V) Farnham
Sam Akinbami, (T) Grand Island
Melanie Hamilton, (T) Hamburg
Adrienne Punturiero, (V) Hamburg
William Kolacki, (T) Holland
Kathleen Johnson, (V) Kenmore
Hon. Mark Aquino, (T) Lancaster
Tim Kelly, (V) Lancaster
Beth Ackerman, (T) Marilla
Lewis Tandy, (T) Newstead
Marian Vanni, (T) North Collins
Anne Bergantz, (T) Orchard Park
Darren Farthing, (T) Sardinia
Kevin Burd, (T) Tonawanda
Peter Tarnawskyj, (T) Wales

Erie County Environmental Management Council

2012 State of the Environment Report

2012 Erie County Environmental Management Council
State of the Environment Report
Summary of Recommendations

The Erie County Environmental Management Council's State of the Environment report sets the stage for strategic planning, as well as priority-setting for the allocation of resources to address environmental issues. The report is divided into nine sections: Air Quality; Water Quality; Energy Use; Solid Waste Management; Land Use; Transportation; Toxic Emissions; Contaminated Sites; and Ecosystem Health. The following summary of priorities highlights the key recommendations made in those sections.

2012 State of the Environment Report Top Priorities

- "Green" internal County operations and facilities
- Pursue regional water quality projects
- Map the County's environmental assets
- Improve County infrastructure to encourage greener modes of transportation
- Increase the number of household hazardous waste collection events
- Support reauthorization of Brownfields funding

Green Internal County Operations and Facilities

Across the country, many government agencies and institutions have realized the environmental and economic benefits of greening their own internal operations and facilities. There are opportunities throughout Erie County government to make environmental improvements such as: energy conservation; comprehensive internal recycling programs; and public recycling programs at County Parks. Many of these efforts would lead to cost savings, as well as environmental benefits.

The EC EMC recommends:

- The County should hire a Sustainability Coordinator to run an Erie County Green Team consisting of representatives from all County departments. The Sustainability Coordinator and the Green Team members would be charged with identifying, prioritizing, and implementing potential projects.

- Greening projects to be considered should include: recycling at County facilities, renewable energy projects at County facilities, energy conservation, green purchasing, solid waste reduction, and energy conservation through fleet management.

Pursue regional water quality projects

As part of the Great Lakes basin, Erie County recognizes its water resources as a key asset to the health and vitality of the community – environmentally, economically, and socially. These resources are valuable for aesthetic, recreational, personal, and occupational purposes and are a key asset to the County's commercial, industrial, and agricultural sectors. Aging infrastructure in the form of storm sewers, sanitary sewers, and septic systems makes it difficult to prevent the contamination of the County's fresh water resources. In order to address these issues, the Erie County Water Quality Committee works with Cattaraugus and Chautauqua counties to collaborate on the Lake Erie Watershed Protection Alliance (LEWPA). The organization's goal is to alleviate non-point source pollution in the New York State portion of the Lake Erie watershed.

The EC EMC recommends:

- The County's Water Quality Committee should continue to work with Chautauqua and Cattaraugus counties on the Lake Erie Watershed Protection (LEWPA) to identify ways to repair and replace aging infrastructure.
- Erie County continue to work with LEWPA, Buffalo Niagara Riverkeeper, and other water protection organizations to promote the protection of our Great Lakes resource and better position Erie County to pursue, secure and utilize local, state and federal funds.

Map the County's environmental assets

Land use is the basis on which we determine and protect our environmental quality as well as identify and characterize open space, habitat, natural areas, and their relationship to development and developed areas including farmland, commercial, industrial and urban areas. Erie County's natural landscape provides valuable ecological services that can be quantified- water treatment, stormwater management, and air quality improvement.

The loss of rural, agricultural, and environmentally-sensitive lands as a result of growing urbanization brings with it higher levels of impervious surfaces, less forest cover, expansion of public water and sewer infrastructure, and longer commutes with attendant greenhouse gas emissions. This places the region's best agricultural lands, major riparian corridors, wetlands, floodplains, and forests

under greater stress and at more risk. Although the mapping included in the 2006 Erie and Niagara Counties Framework for Regional Growth is a valuable start, further specificity and monitoring of the Framework's policies and development targets is essential in order to conserve valuable natural resources and better channel new development.

The EC EMC recommends:

- An allocation of resources within an existing or new organization to allow proper tracking of land use changes over time.
- GIS mapping systems should be used to provide baseline environmental indicators that quantify land use in Erie County.

Improve County infrastructure to encourage greener modes of transportation

As a result of urban sprawl and the increased dependence on the automobile which has accompanied it, our environment has become increasingly exposed to greater levels of emissions from exhaust. These emissions pollute our air, cause health-damaging smog, and threaten the Earth's protective ozone layer. Such developments are not environmentally sustainable in the long run, and action is needed to slow sprawl and lessen our dependence on the automobile. The key to reducing pollution generated by automobiles is to encourage people to walk, bike, carpool, and take public transit more often so as to encourage a healthier living environment.

The EC EMC recommends:

- Improved bike lane marking on County roads.
- The use of the "Complete Streets" concept in County planning efforts.
- County promotion of the use of public transportation.

Increase the number of household hazardous waste collection events

Since 1988, Erie County has played a unique role in offering programs which provide disposal opportunities to residents, schools, businesses and municipalities for problematic waste streams that should not be placed with regular trash and require special handling and disposal. These programs include the Household Hazardous Waste Collection Program, the Conditionally Exempt Small Quantity Generator Program, the Pharmaceutical Waste Collection Program and Electronic Waste Recycling Program. The County's Household Hazardous Waste Program continues to draw large numbers of participants and collect thousands of gallons of hazardous waste. The demand for these events has increased, while the number of events has decreased. This often results in long waits for residents with more than 1,000 participants at each of the 2012 events.

The EC EMC recommends:

- Increased funding for staff and program expenses for these programs, so that more household education and collection events can be held.

Support reauthorization of Brownfields funding

Every community in New York State is affected by contaminated and abandoned properties, also known as "brownfield" sites. Left untouched, brownfields pose environmental, legal and financial burdens on a community and its taxpayers. These sites that were once a source of economic vitality to the region now contribute to environmental degradation, potential health risks, urban decay, decreased tax revenue and population loss.

New York State offers incentives in the form of technical and financial assistance, as well as liability relief, to encourage the clean-up and reuse of contaminated sites. Incentive programs target both the public and private sector. New York State Department of Environmental Conservation oversees cleanups of inactive hazardous waste disposal sites and petroleum/chemical spills.

The NYSDEC Brownfield Cleanup Program (BCP) is set to sunset in 2015. This means that clean-ups in this program must be completed by 2015 if tax incentives are to be obtained.

The EC EMC recommends:

- The County should recommend and encourage New York State to keep the BCP current so developers will be encouraged to undertake brownfield clean-ups and redevelopment of contaminated sites.
- The County should actively recommend and encourage New York State to reauthorize and restore funding for the State's Environmental Restoration Program Initiative which provides local governments the necessary seed money to promote brownfield clean-ups and the redevelopment of contaminated sites.

LAND USE

The Issue

For the purposes of this report, land use is "a fundamental environmental and ecological concept and tool that helps citizens and governments determine planning, zoning, conservation, and protection of land. A focus on land use is a critical component for a vital economy, sustainable neighborhoods, strong rural communities and improved access and mobility. Land use is the basis on which we determine and protect our environmental quality as well as identify and characterize open space, habitat, natural areas, and their relationship to development and developed areas including farmland, commercial, industrial and urban areas." Land Use impacts everything and is subject to many competing demands. We rely on our land resource for food, energy, agriculture, forestry, recreation, and cultural amenities, and to function within our ecological systems to protect the quality of our air, our water -- overall, for a good living environment.

Erie County's natural landscape provides valuable ecological services that can be quantified- water treatment, stormwater management, and air quality improvement. The loss of rural, agricultural, and environmentally-sensitive lands as a result of growing urbanization brings with it higher levels of impervious surfaces, less forest cover, expansion of public water and sewer infrastructure, and longer commutes with attendant greenhouse gas emissions. This places the region's best agricultural lands, major riparian corridors, wetlands, floodplains, and forests under greater stress and at more risk.

Prior to the adoption by the Erie County Legislature in 2006 of the Erie and Niagara Counties Framework for Regional Growth, the County had no planning tool to conserve valuable natural resources and better channel new development. Although the Framework is a valuable initial start, further specificity and monitoring of the Framework's policies and development targets is essential.

The Indicators

Land use is a fundamental indicator of environmental integrity. Assessing our land use in terms of environmental and ecological integrity relies on the creation of a baseline of quantifiable understanding. By working with existing and future GIS mapping systems to quantify areas in the following categories we can begin to develop a net gain and loss indicator model that will provide all future generations with access to planning and protection needs, goals, milestones, and successful land use planning and protection. The ECEMC should advocate for the allocation of resources within an existing or new organization thereby allowing proper tracing of land use changes over time.

We propose to categorize indicators in the following environmentally responsible categories: **Protected Areas; Areas that are Not Protected but Could Be; Areas that are difficult to Protect; Threats.** (Source: Framework for Regional Growth).

The Assessment

Wetlands

Many of the wetlands that were originally here in Western New York have been destroyed by dredge and fill activities, drainage, development, pollution, and natural causes. Floodplain and riparian areas that buffer surface water have diminished as well. Erosion, flooding, and sedimentation have resulted.

Wetlands, floodplains, and healthy riparian corridors provide natural open space, filter pollutants from water, provide flood protection, recharge aquifers, maintain dry season stream flows, stabilize shorelines from erosion, and provide habitat for fish and wildlife.

NYS regulates wetlands greater than 12.4 acres in size or of unusual local importance. As of February 2012, Erie County had 319 NYS regulated wetlands totaling 19,940 acres. That is an increase of 46 acres from 2008, represents 3 percent of the County and affects 2,600 landowners. Wetlands are continually reassessed – new wetlands are added, boundaries adjusted, and wetlands removed. (www.dec.ny.gov/lands/5124.html, accessed April 4, 2012).

U.S. Army Corps of Engineers (ACOE) federal jurisdiction wetlands have expanded significantly in Erie County, particularly with the inclusion of the Northeast Wetland delineation supplement adapted in March 2010. This expansion has impacted all aspects of development, land disturbance and planning and designing future projects. Any impact of over 0.1 of an acre of

federal jurisdiction will require creating wetland in an upland area after receiving ACOE authorization to impact the wetland.

Farmland

Agriculture plays an important role in the County's economy. The USDA reported agricultural sales in Erie County of over 117 million dollars in 2007. (National Agricultural Statistics Service, USDA, Statistics by State, Annual Statistical Bulletin, 2011) Agricultural activity provides employment, supports the local food system and is essential to the region's food security. Well-managed, privately held agricultural lands also have environmental and social benefits: they act as a natural stormwater filtration system, provide food and cover for wildlife, conserve environmentally sensitive lands and maintain scenic, cultural, and historical landscapes (Source: Framework for Regional Growth). The loss of farms and farm acreage has a negative impact on the County's economy.

Between 2002 and 2007, the most recent available data, there was a loss of 74 farms and 12,391 acres of farmland in the County. As of 2007, there were 1,215 farms and 149,356 acres of farmland in Erie County. (Source 2002 and 2007 Census of Agriculture, USDA)

One of the keys to Western New York's resurgence will be recognizing that our land is a unique and valuable asset. Erie County has the soils, the climate, and the water needed to grow food. The returns from land used for well-practiced farming will be such that the value of an acre of farmland will surpass that of land sold for development.

Urbanized Area

The region's urbanized area has increased rapidly over the past several decades, while population has declined, leaving fewer people to pay for increased infrastructure. From 1980 to 2000, the urbanized area in Erie and Niagara Counties increased by 101 square miles, from 266 square miles in 1980 to 367 square miles in 2000. Over the same time, the County's population decreased by 66,011. The Framework for Regional Growth graphically depicts the change in urbanized area in Erie County over that time within the context of regional growth (urbanized area is reported on a Metropolitan Statistical Area basis – Erie and Niagara Counties – as defined by the U.S. Census Bureau).

Recommendations

1. Use GIS mapping systems to provide baseline 2012 indicators that quantify land use in Erie County with particular reference to the Environmental Indicators identified in this section. These baseline indicators will be critical tools to help determine net gain and loss of environmentally significant areas over time and will help determine strategies to protect our environmental heritage for generations to come.

2. Continue to develop County wide land protection programs and models that explore land banking, energy production and infra-structure concerns, natural resources extraction, farmland and open space protection, wetlands protection, green and wildlife corridors, public access, education, and threats assessments.

3. Recognize the importance of Erie County Legislators' support for local municipal conservation easement programs.

4. The EMC should continue to partner with towns, villages and local planning organizations such as the Greater Buffalo-Niagara Regional Transportation Council, Buffalo-Niagara Riverkeeper, and the Cornell Extension to foster projects that protect natural spaces, wetlands, farms and farm acreage, forests and riparian corridors.

5. The County should focus economic development efforts in areas with existing infrastructure.

6. The County and the EMC should encourage the collaboration among appropriate U.S. and Canadian partners on projects like a marine sanctuary in Lake Erie and the Niagara River, as well as preserving the globally significant bird habitat.

7. The ECEMC and the ECDEP should continue to analyze the results of the 2010 U.S. Census to determine what measures have already been taken and to identify further policy and administrative steps that can be implemented to continue on the road to economic growth and environmental quality.

8. Plan and hold an event that educates Erie County lawmakers, business people, and citizens about land conservation and cluster development.

ENERGY USE

The Issue

Reliable, affordable and environmentally responsible energy use is key to the County's economic growth and quality of life; increasing energy efficiency and encouraging renewable energy in Erie County will cut costs, while mitigating the effects of climate change.

Electricity costs account for over half of total energy spending in most local governments in New York and at 18.31 cents per kilowatt hour, New York State has the third highest average electric rate in the nation (Source: New York State Comptroller's Office and United States Energy Information Administration).

Numerous federal and state policies and incentives focus on reducing energy usage in the residential, commercial and industrial sectors. New York State is also part of the Regional Greenhouse Gas Initiative (RGGI), an initiative of the Northeastern and Mid-Atlantic States, and the first market-based regulatory program in the United States to reduce greenhouse gas emissions. RGGI funds are spent on programs to promote energy efficiency and electric generation technologies that do not emit greenhouse gases or significantly reduce emissions of greenhouse gases.

Similarly, the New York State Public Service Commission for the System Benefit Charge, the Energy Efficiency Portfolio Standard and the Renewable Portfolio Standard require electric utilities to collect funds from customers through a surcharge on electric bills. These funds are transferred to the New York State Energy Research and Development Authority (NYSERDA) to be spent primarily on energy efficiency programs, development of renewable electric generation, and research (Source: New York State Comptroller's Office).

New York State's total RGGI revenue for SFY 2010-11 was over $266 million – more than double the projected amount. $240 million of the RGGI proceeds went to consumer benefit programs that reduce greenhouse gas emissions, while promoting energy efficiency and renewable energy. These investments save consumers money, create jobs, reduce the flow of dollars outside the state for imported fossil fuels and protect public health and the environment. For instance, $12 million supported the installation of 383 solar photovoltaic systems (3,710 kW), with anticipated production of 4,370 MWh per year. $4.6 million was dedicated to 17 companies to develop and commercialize new transportation technologies to reduce greenhouse gas emissions and save fuel (Source: Regional Greenhouse Gas Initiative).

Furthermore, the NYSERDA programs for Wastewater Efficiency and Combined Heat and Power were recognized in the top five energy efficiency programs in the nation in 2010. These programs will result in significant energy and cost savings for the state that will improve the state's economic competitiveness (Source: NYSERDA).

The Indicators

- Average annual natural gas usage (thousands of cubic feet of natural gas/account)
- Average annual electricity consumption in kilowatt hours (kWh)

Change in annual natural gas usage data was obtained from the National Fuel Gas Distribution Corporation for this report. Gas usage was determined from the average account data of the "New York Division" of National Fuel, an area including Erie County and other parts of Western New York. Change in average annual electricity consumption was determined by data from National Grid.

The Assessment

Average annual natural gas usage in and around Erie County declined from 2000 to 2010 in the residential, commercial and industrial sectors. Residential average annual usage declined 15 percent (17.7 mcf/account) from 118.2 in June 2000 to 100.5 in June 2010. Over the same time, commercial and industrial usage declined by 12 and 35 percent, respectively. In the past year (comparing March 2010 to March 2011), residential and commercial usage have continued to decline - by 0.4 percent and 1 percent respectively. However, industrial natural gas usage grew by 8 percent between March 2010 and

March 2011. More efficient technology, smarter natural gas usage and reduction in the usage of natural gas will have a positive impact on the state of the County's environment and economy.

Average annual kilowatt hour usage varies by sector. In and around Erie County, residential customer electricity usage rose from 7,219 kWh to 7,759 kWh (7.5 percent) between 2000 and 2009. Residential electricity usage has continued to rise in the past year; in 2010, the average annual usage per residential customer was 7,815 kWh – almost a one percent increase in just one year. Commercial and industrial usage declined by 6.9 and 30.3 percent respectively between 2000 and 2009. New data from 2010 shows that commercial usage has dropped by another 0.5 percent in the past year. However, industry usage has again increased by 4.0 percent from 2009 to 2010.

ANNUAL KWH

Year	Residential	Commercial	Industrial
2000	7,219	82,732	7,407,526
2001	7,228	78,119	7,238,382
2002	7,393	75,862	6,144,891
2003	7,602	76,463	6,061,350
2004	7,715	78,613	6,259,313
2005	7,876	79,381	6,025,131
2006	7,819	78,977	5,877,647
2007	7,818	78,791	5,730,711
2008	7,756	78,365	5,706,633
2009	7,759	76,945	5,162,589
2010	7,815	76,535	5,369,800

(Source: National Grid)

The Recommendation

Stimulating sustainable economic growth, technological innovation, and job growth in the County's energy and transportation sectors through competitive market development and government support should continue to be a key Erie County initiative. Gains in resource efficiency, particularly in energy usage, can positively affect the County's economic growth and environmental quality.

Increasing the diversity in energy resources in all sectors of the County through energy efficient technologies and alternative energy resources, including renewable-based energy, would provide for a more stable and sustainable economy. Erie County is an ideal location for the implementation of wind power, as already demonstrated by Steel Winds in Lackawanna, NY. The development of policies supporting wind power will greatly benefit the County's environment and economy in the long run.

Erie County is uniquely positioned to coordinate regional efforts to conserve energy and promote renewable energy use among the residents, towns/villages and businesses within the County. Development of a strategic, comprehensive plan to save energy and reduce greenhouse gas emissions throughout Erie County will result in cost reductions and environmental benefits in the near and long term.

The EMC supports Erie County's efforts to achieve the aforementioned goals by working on a Regional Sustainability Plan through NYSERDA's Greener Cleaner Communities Program. This planning effort with 5 counties (Allegany, Cattaraugus, Chautauqua, Erie and Niagara) parallels New York State's Regional Economic Development Council's Strategy for Prosperity by examining ways to reduce greenhouse gases. The priorities and projects identified through this process will have an opportunity to compete for $90 Million in NYSERDA funding. These projects could be internal County operations or community-wide. The EMC recommends that, among other projects, Erie County should pursue funding for an internal Green Team to identify and implement policies and practices within County government that will reduce greenhouse gas emissions, as well as reduce costs.

In addition, increased communication between the government and community is a necessary factor in decreasing energy consumption in the residential sector. By providing accessible information on current rates of energy consumption, along with realistic suggestions to encourage energy management and conservation practices, we can achieve critical decreases in usage per household. Erie County has followed up on a previous State of the Environment recommendation and now offers a website with a comprehensive list of links to all available energy saving incentives at http://www.renewerieCounty.org/

AIR QUALITY

The Issue

Air in Western New York enters the state principally through the prevailing westerly winds blowing across the heavily industrial Midwestern states. When it arrives, it already contains significant contaminant loading.

Within Erie County, ambient air impurities are emitted from **area sources** (e.g. dry cleaners, gas stations and auto body paint shops), **point sources** (such as major industrial facilities, chemical plants, steel mills, oil refineries, power plants and hazardous waste incinerators), and **mobile sources** including both on-road vehicles (cars, trucks, buses) and off-road equipment (ships, airplanes, agricultural and construction equipment).

Regulations for air quality have been set for the protection of public health. Continuous exposure to toxic air contributes to serious health problems including cancer, respiratory ailments, and heart disease. Poor air quality has serious economic impacts because it is directly linked to an increase in missed work days and emergency room visits.

The New York State Department of Environmental Conservation (NYSDEC) is responsible for regulating Ambient Air Quality in Erie County. Erie County has the most ambient air sampling locations in NYSDEC's upstate Ambient Air Monitoring Network, including four continuous sampling sites in Amherst, Tonawanda, Buffalo and Lackawanna. These facilities are required to measure air quality to determine whether or not the state's ambient air meets the prevailing National Ambient Air Quality Standards (NAAQS).

The Indicators

The Clean Air Act Amendments of 1990 require the United States Environmental Protection Agency (EPA) to establish **National Ambient Air Quality Standards** for pollutants considered harmful to public health.

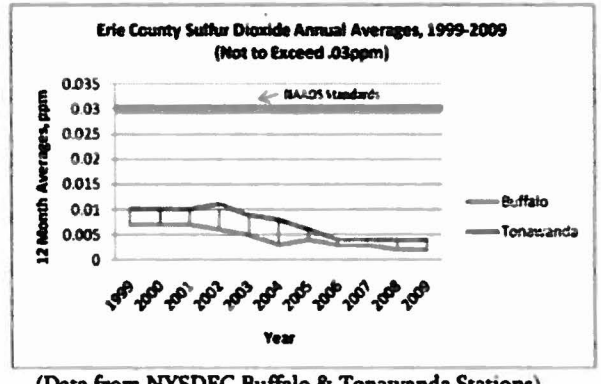
The EPA has set standards for six pollutants considered harmful to public health:

- ground-level ozone
- particle pollution (particulate matter)
- carbon monoxide
- sulfur dioxide
- nitrogen dioxide
- lead

The Assessment

Of the six aforementioned NAAQS pollutants, this report will examine **sulfur dioxide** and **ground-level ozone** levels in Erie County for the period 1999 to 2009.

Sulfur dioxide is a byproduct of the combustion of coal and petroleum typically emitted from industrial sites. High concentrations of sulfur dioxide can influence habitat suitability and plant communities. In addition, sulfur dioxide emissions are a precursor to acid rain and atmospheric particulates. Sulfur dioxide emissions for Erie County are gathered from the Buffalo and Tonawanda air monitoring stations.



(Data from NYSDEC Buffalo & Tonawanda Stations)

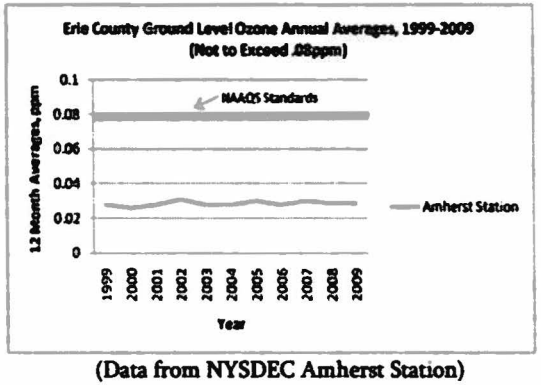
Data from the above chart indicates that over the period sulfur dioxide levels within Erie County have remained consistently below the NAAQS recommendations. However, levels measured from the Tonawanda station deviate greatly from levels gathered from the Buffalo station. This information suggests that people residing in areas close to Tonawanda are exposed to higher levels of sulfur dioxide compared to their neighbors in Buffalo and thus, are at a higher health risk.

These findings may be a product of the fact that the point source that emits the greatest amount of sulfur dioxide in Erie County is located in Tonawanda. C. R. Huntley, a coal-fired power plant, emits 48,484 tons of sulfur dioxide per year. This figure is nearly ten times greater than the next highest emission facility, Bethenergy located

in Lackawanna, and is greater than the next top 25 emission facilities in Erie County combined.

In October 2011, the NYDEC updated the 2009 Tonawanda Community Air Quality Study, reporting that levels in the ambient concentrations of benzene and other air pollutants within the Tonawanda community had been reduced.

In the upper atmosphere, ozone protects the Earth from damaging ultraviolet radiation; at the ground level however, it is an environmental and health hazard. Excessive levels of **ground-level ozone** can produce respiratory disease, damage crops, depress commercial forest yields, and jeopardize the long term health of the environment. In addition, ground-level ozone can also trigger haze over communities which restrict visibility, thus placing drivers and pedestrians at higher risks for accidents. Ground-level ozone emissions for Erie County are gathered from the Amherst air monitoring station.



(Data from NYSDEC Amherst Station)

Data from the above chart indicates that over the period ground-level ozone levels within Erie County have also remained below the NAAQS recommendations. In addition, these levels have remained relatively constant, fluctuating very little between .02ppm and .04ppm every year.

Despite these findings, Erie County ranks 6th amongst New York State counties in yearly volatile organic compound emissions, behind only Kings, New York, Suffolk, Queens, and Nassau counties. These emissions are the leading cause of ground-level ozone. In addition, only 30% of U.S. counties have higher 8-hour ozone concerntrations than Erie County. Further, in 2003 Erie County experienced seven days in which NAAQS were above recommended safety levels.

The Recommendation

There are several important strategies County agencies and officials can take to improve our air quality and public health.

First, the County should support environmental non-profit organizations, such as the Clean Air Coalition of Western New York (CACWNY), that are dedicated to reducing air pollution. Community activism in Tonawanda spearheaded by the CACWNY contributed to enforcement actions by the EPA and NYSDEC against Tonawanda Coke, a major source of industrial emissions in the area. To that end, the EMC is supporting the CACWNY in its efforts to expand air quality monitoring in Erie County to include the lower west side/Peace Bridge Neighborhood.

The EMC recommends that the County Executive and the Legislature write a letter of support to the Commissioner of NYSDEC for this important monitoring effort.

The EMC has also voted to support the CACWNY in its USEPA funded CARE program in Tonawanda, which involves a broad-based partnership of stakeholders in Tonawanda who want to reduce toxins in their community. Community members will be able to voice their concerns through photography and public meetings. The project will also train the stakeholders on ways to track releases, use government databases and test air quality.

Second, the County can partake in programs that encourage the public to take steps to reduce their own footprint on air quality. Included in this would be educating residents about outdoor burning restrictions, and the health and safety hazards of outdoor burning. With funding provided by the EPA, the DEC offers a grant initiative to help municipalities with public outreach and the purchase of equipment to provide alternative means for disposal of organic waste.

Finally, it is a reality that air quality will not always remain safe at all times. The County should help alert the public when local air quality does not meet safety standards. Doing so will help reduce citizen exposure to harmful pollutants.

WATER QUALITY

The Issue

As part of the Great Lakes basin, Erie County recognizes its water resources as a key asset to the health and vitality of the community – environmentally, economically, and socially. These resources are valuable for aesthetic, recreational, personal, and occupational purposes and are a key asset to the County's commercial, industrial, and agricultural sectors.

Erie County is home to plentiful and diverse water resources that define our region. There are 17 major watersheds and 36 major streams in the County draining into Lake Erie or the Niagara River. Industrial, agricultural, suburban, and urban development greatly impact surface and groundwater quality in Erie County.

Tainted water supplies may cause chronic health effects that occur long after repeated exposure to contaminants. Health issues, such as cancer, liver and kidney damage, disorders of the nervous system, and birth defects can occur. The atmosphere contains water vapor that evaporates from water bodies; evaporation from polluted sources increases the likelihood of acid rain. Contaminated water also affects the survival of entire species, including both waterborne and land animals.

In Western New York, aging infrastructure in the form of storm sewers, sanitary sewers, and septic systems makes it a difficult battle to prevent the contamination of the County's fresh water resources. Federal, state and local organizations are tasked with the goal of protecting and enhancing water quality for the biodiversity of aquatic communities, and providing standards and criteria to maintain the health of human populations.

The federal United States Environmental Protection Agency (USEPA) has established standards for ground water, surface water, and drinking water. Criteria are also in place for water quality, nutrient levels, and recreational safety.

The New York State Department of Environmental Conservation (NYSDEC) is responsible for monitoring water quality in the state. The NYSDEC regulates wastewater treatment and disposal and is responsible for monitoring recreational and drinking water quality.

At the local level it is the mission of the Erie County Water Quality Committee (ECWQC) to protect and improve water quality. The ECWQC is responsible for developing and maintaining a Water Quality Strategy for Erie County (see January 2011 Water Quality Strategy) and fosters collaboration among local governments and stakeholders. Buffalo Niagara Riverkeeper, a science-based, community focused, advocacy non-profit, works closely alongside the ECWQC to protect and remediate local water resources.

Additionally, the Western New York Stormwater Coalition (WNYSC) is made up of 42 regulated Municipal Separate Storm Sewer Systems (MS4s) in Erie and Niagara counties. They work together and share resources to develop a stormwater management program to protect local waterways and enhance the quality of life in our region.

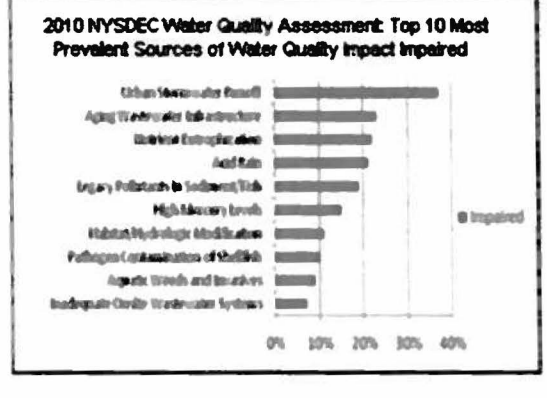
Finally, Erie, Cattaraugus, and Chautauqua counties collaborate in the Lake Erie Watershed Protection Alliance (LEWPA). The organization's goal is to alleviate non-point source pollution in the New York State portion of the Lake Erie watershed.

The Indicators

In an effort to capture the health of the County's waters, our assessment has been based on the **2010 NYSDEC Water Quality Assessment.**

The NYSDEC Water Quality Assessment is compiled by the NYSDEC Division of Water using monitoring data and information from programs both within and outside of the department. It contains assessments for just over half of the nearly 5,000 waters identified across the state. While not County specific, the information indicated in the study is considered representative of the causes/sources of water quality impairment throughout the state. The assessment identifies the top ten water quality issues facing New York State water supplies

The Assessment



The above graph shows the frequency for which a specific source is a sigificant contributing factor to water quality in NYS. It illustrates the occurrence of each cause/source as a percentage of all waters assessed as impaired.

Urban stormwater runoff is the most serious threat to Erie County water quality. Stormwater runoff is generated when precipitation from rain and snowmelt flows over land or impervious surfaces such as paved streets, parking lots, and rooftops. Consequently, it accumulates and transports chemicals, nutrients, sediment, and debris. If the runoff is not captured or is discharged without first being treated, it can adversely affect water quality in receiving lakes, rivers, and estuaries.

Combined Sewer Systems and MS4s are the two types of wastewater conveyance systems used to manage sewage and surface runoff (i.e. stormwater). The issue in Erie County is that nearly 30% of these systems are in excess of 60 years old.

Combined Sewer Systems, typical in older urban cities, combine both stormwater and sanitary sewage during precipitation/snowmelt events. When the volume of combined flow exceeds the capacity of the sewers, the combined system, by design, relieves itself by discharging excess flow into local waterways. The release of this combined flow, raw sewage and stormwater, is known as a Combined Sewer Overflow or CSO.

MS4s keep stormwater separate from human waste and other substances in sanitary sewers which serve homes and businesses. Unfortunately, rapid population growth in MS4 communities has pushed the capacity of sanitary sewers to the limit which may result in the discharge of raw sewage to local waterways via storm sewers. The release of sewage into a separate storm sewer system is known as a Sanitary Sewer Overflow or SSO.

The Recommendations

The improvement of water quality will require upgrades to wastewater treatment infrastructure including MS4s, CSOs and Publicly Owned Treatment Works (POTWs).

- To avoid overflow, sanitary sewer system capacity needs to be increased. However, due to the age and condition of our infrastructure, billions of dollars are required to replace or upgrade sanitary sewers.
- In order to repair, replace and update New York's municipal wastewater infrastructure, a conservative cost estimate has been set at over $35 billion over the next 20 years.
- Use of Best Management Practices (using Smart Growth concepts), educational outreach programs, green infrastructure, and technical assistance, along with the maintenance plans currently in place, is imperative in maintaining POTWs until incremental funding for system upgrades becomes available.

Reforming our infrastructure provides the opportunity to utilize innovative approaches encouraged by programs such as the Buffalo Niagara Riverkeeper's Green Infrastructure Plan, which include:

- Use of rain barrels designed to capture rainwater runoff from gutters that can be used for watering lawns and gardens; and
- Use of natural drainage systems and rain gardens that allow rainwater runoff to be absorbed into the ground rather than flowing into storm drains; and
- Use of vegetated green roofs that absorb stormwater runoff and release it back into the atmosphere.

An increase in regional collaboration with organizations, such as LEWPA, will help to determine the needs of the watershed, rather than basing such needs on individual municipalities.

The Western New York Stormwater Coalition has a number of initiatives for 2012 that will better manage the County's stormwater systems. This includes a $1.1 million grant to map stormwater infrastructure in the MS4 regulated area, as well as installing five rainwater cisterns in Tonawanda, Orchard Park, Aurora and South Buffalo, which will result in savings of over 2 million gallons of potable water.

A partnership between the EPA, Buffalo Niagara Riverkeeper, NYSDEC, and U.S. Army Corps of Engineers has developed and implemented plans to address environmental issues facing the Buffalo River, including contaminated sediments, poor water quality and insufficient wildlife habitats. Phase II of the Buffalo River Dredging of about 500,000 cubic yards of contaminated sediment could begin in Fall 2013.

SOLID WASTE MANAGEMENT

The Issue

Municipal Solid Waste (MSW), more commonly known as trash or garbage, consists of everyday items we use and then discard. Proper management of MSW should follow United States Environmental Protection Agency's hierarchy by incorporating, in order of priority, a combination of waste reduction, recycling, energy recovery and landfilling. The EPA reports that, on average, individuals generate 4.43 pounds of MSW per day with approximately 1.5 pounds recycled or composted.

The management of MSW in Erie County is administered at the town level of government. This has resulted in diverse MSW collection, recycling and disposal operations across 44 cities, towns and villages. The collection of MSW may be accomplished by municipal employees or through town contracts with private disposal firms. In still others, it is up to the individual homeowner to either arrange for pickup by a private firm for collection or take refuse to a central municipal transfer station.

The processing of recyclables and MSW disposal is done by private companies in Erie County. MSW in Erie County is either sent to the Chaffee Landfill in southern Erie County, Modern Landfill or Allied Landfill in Niagara County or the Covanta MSW Incinerator in Niagara Falls.

There are two Solid Waste Management Boards (SWMBs) in Erie County. The Northwest SWMB encompasses the six larger suburban municipalities in Erie County. The Northeast Southtowns SWMB represents thirty seven suburban and rural municipalities. The City of Buffalo, for MSW planning purposes, is independent and is not a member of either SWMB. The SWMBs act in an advisory capacity for MSW management. The Erie County Department of Environment and Planning (ECDEP) provides administrative and logistical support for the SWMBs reporting requirements to the New York State Department of Environmental Conservation (DEC). Each SWMB is also required to develop and implement a Solid Waste Management Plan (SWMP). Every ten years this plan must be updated to reflect changes in federal, state and local regulations.

The Indicators

The selected indictors for solid waste are:

- Annual tons of MSW generated
- Annual tons of household hazardous waste collected at County events

Waste reduction and recycling efforts are captured in the annual tons of MSW generated in the County. This is a more accurate portrayal of waste reduction and recycling efforts than recycling rates which may fluctuate. For example, the overall recycling rate might decrease based on waste reduction efforts, such as designing lighter packaging or reducing consumption of materials.

The household hazardous waste collected through County indicates the amount of these hazardous chemicals in the waste stream, as well as demand for this program.

The Assessment

The chart below summarized the selected indicators.

MSW Generated in Erie County

Year	Approximate Total Tons of MSW Generated	Pounds of MSW generated per Capita *	Pounds of MSW Generated per Person per Day
2009	829,619.13	1,805.40	4.95
2010	774,553.78	1,685.57	4.62
2011	661,447.26	1,439.43	3.94

**Erie County population of 919,040 (2010 census)*
Source. NYS DEC landfill and incinerator reports

These figures show a reduction in MSW generated, which can be attributed to enhanced City of Buffalo and Town of Amherst recycling programs.

Household Hazardous Waste Events

Year	Number of Events	Number of Participants	Pounds of Pesticides Collected	Gallons of Other* Waste Collected
2007	4	3,089	15,150	32,709
2008	3	2,630	9,846	44,327
2009	3	2,740	13,832	46,785
2010	2	1,967	9,415	31,680
2011	2	1,651	9,215	43,530
2012	2	2,421	6,762	50,737

** Includes paint, oil, antifreeze, gasoline, aerosols, adhesives, acids and oxidizers*
Source: Erie County DEP

The County's Household Hazardous Waste Program continues to draw large numbers of participants and collect thousands of gallons of hazardous waste. The demand for these events has increased, while the number of events has decreased. This often results in long waits for residents with more than 1,000 participants at each of the 2012 events.

Recommendations

The December 2010 DEC MSW plan entitled "Beyond Waste, A Sustainable Materials Management Strategy for New York State". calls for a number of regulatory and voluntary programs, such as:

1. Employing waste prevention strategies first, with the goal of reducing solid waste disposal to 0.6 pounds per capita by 2030.
2. Reinforcing recycling requirements for all individuals, whether they are at home, at work, at school or in public spaces.
3. Restricting the disposal of recyclables and hazardous products where recovery options are readily available.

Erie County should focus efforts on the aforementioned three objectives by doing the following:

1. Waste Prevention

Erie County has the opportunity to lead by example in the area of waste prevention by initiating efforts to reduce or eliminate waste generation in County operations. To determine needs and opportunities, first an internal waste audit is needed. Waste prevention could include packaging reduction and returns, inventory management and materials reuse. Materials without reduction opportunities would then be evaluated for recycling options to ultimately minimize total waste generation. Contracts and current disposal accommodations would then be re-evaluated for further reduction. Once this process is completed, Erie County should then share that information with local municipalities.

2. Recycling Reinforcement

In addition to internal waste elimination, the County needs to support waste reduction and recycling for municipalities, residents and businesses. The County should continue its relationship with the two suburban Solid Waste Management Boards (SWMBs) to work toward achieving goals and objectives stated in their respective Solid Waste Management Plans.

Administrative and logistical support of the two Boards is critical to their continued viability and regulatory compliance. This can be achieved by securing a New York State Department of Environmental Conservation Municipal Waste Reduction & Recycling State Assistance Program Grant. Erie County has recently submitted a full application, which will provide funding for a full time Recycling Coordinator to assist SWMBs. The EMC further recommends that the Recycling Coordinator should:

- focus on educating the public regarding the cost savings associated with waste reduction and recycling; and
- explore legislation to reduce waste, such as a plastic bag ban.

3. Special Waste Disposal Needs

Since 1988, Erie County has played a unique role in offering programs which provide disposal opportunities to residents, schools, businesses and municipalities for problematic waste streams that should not be placed with regular trash and require special handling and disposal. These programs include the Household Hazardous Waste Collection Program, the Conditionally Exempt Small Quantity Generator Program, the Pharmaceutical Waste Collection Program and Electronic Waste Recycling Program.

The EMC recommends increased funding for staff and program expenses for these programs, so that more household education and collection events can be held. Currently the events are too infrequent to adequately serve the public. Public education for proper waste paint and pesticide disposal along with oil, battery and electronics recycling is also needed. Product stewardship legislation for paints, fluorescent bulbs and propane cylinders should be encouraged at the state level to mitigate the impact of these problem wastes. Recent changes in state regulations for non-alkaline batteries and electronic wastes will increase recycling opportunities available to the public. Residents, local officials and businesses should be kept informed as waste disposal and recycling options change. To that end, the EMC recommends that the County Recycling Coordinator compile and update a recycling guide for municipalities to reference regarding specific products such as compact fluorescent light bulbs and tires.

TRANSPORTATION

The Issue

In the past century, the extension and improvement of transportation networks have had the greatest impact on the development of US metropolitan areas.

While these developments have provided greater personal freedom, they have come with severe environmental consequences. Suburban growth, which is facilitated by the development of extensive transportation networks, continues to eat away at natural and agricultural land. Traditional walkable neighborhoods have been supplanted by sprawling edge-cities, which have increased automobile dependence, leading to higher concentrations of air pollution.

As a result of urban sprawl and the increased dependence on the automobile which has accompanied it, our environment has become increasingly exposed to greater levels of emissions from exhaust. These emissions pollute our air, cause health-damaging smog, and threaten the Earth's protective ozone layer. Such developments are not environmentally sustainable in the long run, and action is needed to slow sprawl and lessen our dependence on the automobile.

The Indicators

To assess the degree to which Erie County has become dependent on its transportation network, we will utilize two indicators:

- 1980-2000 U.S. Census Traffic Analysis Zone Data for the Buffalo-Niagara Falls MSA (Metropolitan Statistical Area)
- Texas Transportation Institute Urban Area Report 1982-2009

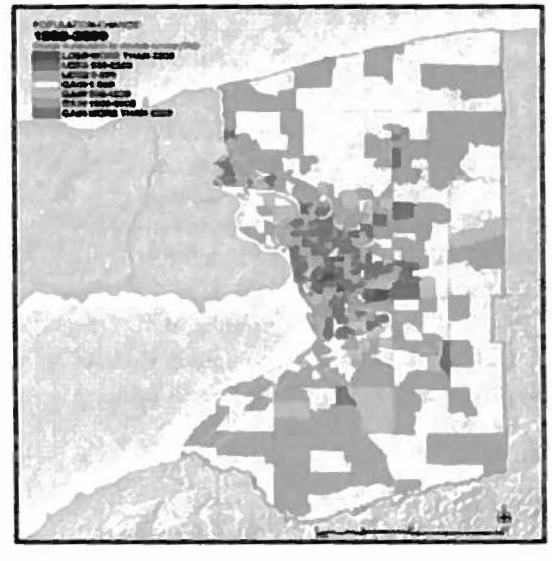
A **Traffic Analysis Zone** (TAZ) is a unit of geography most commonly used in transportation planning models. These zones are constructed from census block information, and are useful tools in displaying socio-economic data relevant to transportation or related fields. Such data includes automobiles per household, household income, and population density within each zone.

Every year the Texas Transportation Institute (TTI) publishes their annual **Urban Area Report** for the major metropolitan areas in the nation. The report provides several performance measures that indicate transportation trends and evaluate the severity of roadway congestion between the years of analysis.

The Assessment

The following **Traffic Analysis Zone Map** indicates the change in population by Traffic Analysis Zone within the Buffalo-Niagara Falls MSA between 1980 and 2000. Darker shades of brown indicate zones with the greatest population decline, while darker shades of green indicate zones with the greatest population growth.

From the map it is evident that the greatest population decline was experienced in the



area's urban centers like Buffalo, Lackawanna and Tonawanda. At the same time, it is evident that the greatest population growth was experienced in the outer-ring suburbs that surround these urban centers. These findings suggest a gradual population shift over the period from the central cities and the inner-ring suburbs farther out into the area's outer-ring suburbs.

The following chart lists relevant 1982 and 2010 performance measures from the **TTI Urban Area Report** related to travel and congestion trends within the Buffalo-Niagara Falls MSA.

Buffalo-Niagara MSA Urban Area Report 1982-2010			
	1982	2010	% Change
Annual Delay per Commuter (hrs)	4	17	325.0%
Daily Vehicle-Miles of Travel (1000s)	8,610	15,651	81.8%
Annual Public Transit Passenger Miles (millions)	105.5	87.9	-16.7%

Despite the increase in commuter hours stuck in traffic, the Buffalo-Niagara region still has one of the lowest commute times in the nation. The region is 4 minutes above the national average, with a commute time of only 21 minutes, as compared to 30 minutes for the rest of NYS.

The Recommendation

The aforementioned TTI Urban Area Report findings, in unison with population trends that developed between 1980 and 2000, show a clear correlation between the development of new population centers in the County's outer-ring suburbs and an increased dependency on the automobile to connect these centers with places of work in the central cities.

As a result of the shift of people away from the central cities and the increased dependency on the automobile that has accompanied this shift, roadway congestion has risen while public transportation usage has declined. Automobile exhaust and land consumed by sprawling communities continues to put great strain on Erie County's environment.

The key to reducing pollution generated by automobiles is to encourage people to walk, bike, carpool, and take public transit more often so as to encourage a healthier living environment.

The New York State Energy Research and Development Authority (NYSERDA) has provided the five counties that make up the Western New York Region a grant to develop a Regional Sustainability Plan. The objective of this plan is to work with public and private stakeholders throughout the region to identify strategies and projects that will support the reduction of greenhouse emissions by 80% by the year 2050. Transportation is one of the major focuses of the planning effort, and provides the opportunity to develop partnerships and initiatives to promote and support less polluting transportation modes.

The Sustainable Planning process is an opportunity to build upon the efforts of existing organizations in Erie County to reduce single occupancy commutes, encourage more fuel efficient vehicle use and reduce the regional green house gas emissions associated with transportation. Good Going WNY matches carpoolers with similar origins and destinations. Also, Buffalo Car Share provides smart cars and other fuel efficient vehicles to members by the hour, with vehicle hubs located throughout Buffalo.

It is also important for the County to continue to invest in public transit and support dense, mixed-use, walkable communities. The long-range goals of the Greater Buffalo Niagara Regional Transportation Council (GBNRTC) advocate using transportation services to promote higher density urban redevelopment and infill development in existing neighborhoods. The County should continue to work closely with the GBNRTC.

Finally, given the opportunity, many Americans would like to walk or bike more. However, many streets fail to accommodate safe passage for all travelers: bikers, pedestrians, drivers, transit users, the elderly, children, and people with disabilities. Go Bike Buffalo's Complete Streets Program works to ensure that when a roadway in Buffalo is constructed or repaired, equal consideration is given to commuters of all kinds, including pedestrians and bicyclists. The County should actively seek funding to construct planned bicycle/pedestrian paths to provide safe travel options by foot, bike, and public transit.

TOXIC EMISSIONS

The Issue

Toxic emissions, or the introduction of contaminants into the natural environment, pose a major threat to our County's water, air and land resources. They have been shown to cause instability, disorder, harm and discomfort to all physical systems and living organisms impacted by their release. Given their potential for irreversible environmental damage, it is imperative to address community concerns regarding toxic emissions and their sources.

In Erie County, most toxins originate from human-made sources, including:

- Mobile Sources (cars, trucks, buses)
- Stationary/Point Sources (factories, refineries, power plants)
- Indoor Sources (building materials, cleaning solvents)
- Non-Point Sources (stormwater runoff)

The responsibility of regulating chemical releases and their storage is shared between federal and state governments. On both levels, the United States Environmental Protection Agency (USEPA) and the New York State Department of Environmental Conservation (NYSDEC) monitor toxic releases and facilities responsible for those emissions. These agencies also use public education on how to manage polluting facilities through recycling, energy recovery and toxic material treatment.

It is an unfortunate reality that our environment is exposed to hundreds of toxic pollutants that are emitted from thousands of individual sources on a daily basis. Finding and eliminating them all will be impractical. Therefore, in order to reduce toxic emissions, we must properly identify, monitor, and regulate the most prevalent pollutants and their sources.

The Indicators

To assess toxic emission levels across Erie County, we will utilize two indicators:

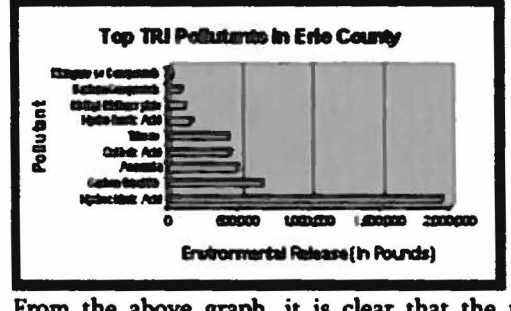
- The EPA Toxic Release Inventory (TRI)
- The EPA County Emissions Mapping System

The **Toxic Release Inventory (TRI)** is a publicly available EPA database that contains information on toxic chemical releases and waste management activities reported annually by certain industries, as well as federal facilities. The program requires polluters to fill out clear statements of toxins released, and makes the data available to the public.

The **County Emissions Mapping System** indicates the density of criteria air pollutant emissions of every County in a selected geographic area. Emission amounts come from the EPA's National Emission Inventory (NEI) database. Emission densities are calculated as emission amount per square mile of land within each County.

The Assessment

The following graph is a record of the main pollutants in Erie County taken from the **EPA Toxic Release Inventory**, updated in **2009**. Each toxin listed impairs the health of the environment, as well as society.



From the above graph, it is clear that the most prevalent pollutant in Erie County is **Hydrochloric Acid (HCL)**, with emission amounts just over three times greater than the second highest pollutant, Carbon Disulfide.

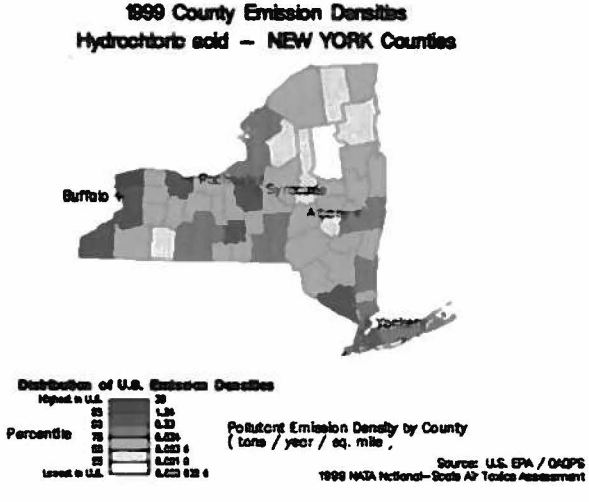
HCL is often used in the production of chlorides, fertilizers and dyes. It also has uses in the textile and rubber industries. It is emitted from the combustion of fuels, refuse incineration, smelting of metal scrap, and the decomposition of gases.

There are many dangers associated with high levels of HCL within the environment. Excessive

human exposure to HCL can cause eye, skin and respiratory irritation and inflammation.

Chronic exposure may lead to severe burns, ulcers and scarring. In the environment, HCL is readily incorporated into cloud, rain and fog water, thus forming a component of acid rain. It also is highly corrosive, contributing to the decay of limestone buildings and other surfaces such as bridges and roadways, as it dissolves as part of condensation.

The following County Emissions Map depicts HCL concentrations in each County across New York State. Darker colors indicate higher densities of HCL within the County, measured in tons per square mile, last calculated in 1999.



The above graph indicates that Erie County falls within the 90th percentile of U.S. HCL emission densities, suggesting that only 10% of U.S. counties have higher HCL densities per square mile than Erie County. Erie County ranks 3rd in total HCL emissions among counties in New York State and 81st among counties across the nation, as reported by the EPA.

The Recommendation

The Toxic Release Inventory not only provides our community an assessment of the toxins that are being released locally, but also identifies the sources from which these contaminants are emanating. This information provides local leaders the opportunity to reach out to the companies and organizations releasing these toxins into the environment to engage and support them in strategies to reduce these emissions.

Within Erie County, the EPA identified the Huntley Generating Station in Tonawanda as the top HCL emitting facility. This should not come as a surprise, given that 89% of all HCL emissions come from coal burning power plants across the nation.

The most effective method of HCL emission reduction within these plants has come from the installation of "scrubbers," which filter pollutants from gases as they are released from fossil fuel burning facilities.

Prior to July 2011, the EPA required 90%-95% efficiency in scrubbers that treat toxic emissions before they enter the environment. However, as of July 2011, the EPA has raised its requirements to 98% efficiency.

Procedures for HCL emission reduction and containment are highlighted in several Federal Regulatory Acts/Programs. Some are listed below with their classification for HCL in parentheses.

- Occupational and Safety Health Act (Air Contaminant)
- Superfund (Extremely Hazardous Substance)
- Clean Air Act (Hazardous Air Pollutant)
- Federal Insecticide, Fungicide, and Rodentcide Act (Registered Pesticide)

There is a role Erie County can play to help reduce the community's reliance on the products and services that contain or emit toxins during their manufacturing process. One step the County may take is to provide data and information to citizens so they have an opportunity to make choices that reduce toxins – whether it is through avoiding plastic (used in some containers and plastic wrap), using organic lawn services (as opposed to companies that use chemicals to protect lawns), or choosing low-VOC (volatile organic compound) or no-VOC paints. As a result, the new public demand for cleaner and greener products and services can push manufacturers and service providers in a direction which will reduce the overall emission of toxins in our community, especially hydrochloric acid.

ECOSYSTEM HEALTH

The Issue

Invasive species are a major threat to the health and vitality of our ecosystems. They can be defined as non-native (or alien) species to the ecosystem and whose introduction causes, or is likely to cause, economic and/or environmental harm to that ecosystem. These can be plants, animals, or other organisms that compete or displace native species and the ecological values they provide.

Two invasive species causing concern in Western New York are the emerald ash borer and the giant hogweed. The emerald ash borer (EAB), (*Agrilus planipennis*) an asian beetle that has the potential to infect and kill all North American ash tree species in the genus *fraxinus*, including green, white, black, and blue ash. Trees that become infected typically die within 2 to 4 years and create "hazard tree" liability to public and private landowners. To date, nearly 50 million ash trees in the U.S. have fallen victim to this invasive species since its discovery in Michigan in 2002.

Initial EAB infestations have been primarily located in Michigan and Ohio. As of 2012, the insect is quickly spreading around the Great Lake States and Canada. It has been found in 3 counties in Western New York, including Erie County.

Giant hogweed (*Heracleum mantegazzianum*) is a federally listed noxious weed. Its sap, in combination with moisture and sunlight, can cause severe skin and eye irritation, painful blistering, permanent scarring and blindness. Contact between the skin and the sap of this plant occurs either through brushing against the bristles on the stem or breaking the stem or leaves.

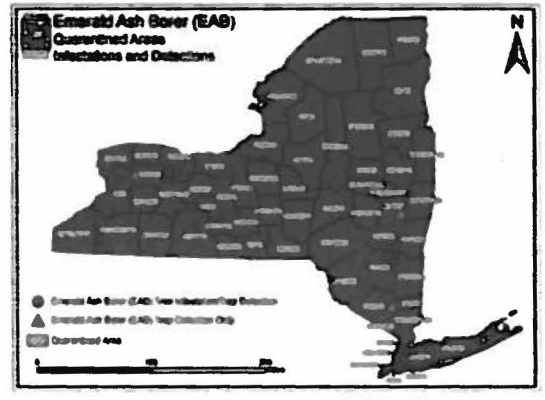
Other invasive species, such as Japanese knotweed (*Polygonum cuspidatum*), the common reed (*Phragmites australis*), purple loosestrife (*Lythrum salicaria*), and common mugwort (*Artemisia vulgaris*), do not have the same severe impacts or health risks as the emerald ash borer and giant hogweed. However, these highly invasive plants continue to take over our river and stream corridors squeezing out natural plant species, which provide valuable bird and animal habitats. These invasive plant species are not only a growing problem in Western New York, but throughout the Great Lakes Basin.

The Indicators

Two indicators to assess the risk of infestation from the EAB in Erie County will be used:

- 2010 New York State Ash Distribution
- 2010 New York State Emerald Ash Borer Infested and Quarantined Counties List

Both resources are provided by the New York State Department of Environmental Conservation (NYSDEC) and can be used to identify the threat of EAB infestation.



The Assessment

To date, emerald ash borer discoveries in Western New York have been on the rise. The above map depicts the current distribution of ash trees across New York State. 1.3 billion ash trees account for 7-8% of New York State's forest. Based on the above map provided by the NYSDEC, the highest concentrations of ash trees are found in Western New York, specifically in Erie County, Niagara County and across the Lake Ontario plain. The NYSDEC has identified all EAB infested counties in New York State to contain the spread. Identified EAB high risk counties have been quarantined to restrict the movement of firewood to uninfested areas.

The first infestation of EAB in Erie County was reported in Buffalo's South Park in June 2011,

where at least a dozen trees were identified. Other infestations were confirmed in the Lancaster area in August 2011 and West Seneca in the spring of 2012.

The NYSDEC has established a giant hogweed hotline and set up regional giant hogweed response teams to eradicate plants as they are identified. Giant hogweed has been found in Western New York for over ten years. Most recently it was been identified within the Buffalo River corridor at the Seneca Bluffs Natural Habitat Park. Erie County and the Buffalo Niagara Riverkeeper, along with several other private and public partners, have implemented invasive species management plans at sites along the Buffalo River to eradicate invasive species such as japanese knotweed, phragmites, purple loosestrife, and common mugwort; and restore natural habitat. The US Army Corps of Engineers has approved $500,000 in federal funding to conduct a Great Lakes Pilot Invasive Species Eradication Project to test a variety of both chemical and mechanical techniques for addressing these species at the Times Beach Nature Preserve.

The Recommendation

The NYSDEC Region 9 Office, in partnership with other government officials and private and public tree experts, have established a Western New York EAB Task Force to proactively discuss strategies to prepare local communities to slow the spread of EAB and identify action steps if and when an outbreak is identified in their community. Given the destructive nature of EAB to our urban and rural forests, eliminating infected trees and containing the infestation is critical to preserving the County's forest resources and the ecological services they provide. Educating local officials and the public is an important aspect of the Task Force's proactive strategy. The ECEMC can assist in this education effort.

EAB has primarily spread though the transportation of untreated lumber products and firewood from an area of infestation to an uninfected area. Once in the new region, the beetles spread, contaminating the area. New York State has adopted regulations that ban untreated firewood from entering the state and restricts intrastate movement of untreated firewood to no more than a 50-mile radius from its source. Federal and New York State agencies should enforce this regulation across Erie County and New York State borders to prevent the further spread of EAB. Efforts to restrict the spread of the Emerald Ash Borer through the transportation of firewood should continue.

It is recommended that anyone who spots what they suspect to be giant hogweed avoid all contact between the plant and their skin and clothing. They should take pictures if possible and contact the NYSDEC hotline (845-256-3111) ASAP.

Erie County and the ECEMC need to support efforts to identify and prioritize habitat negatively impacted by invasive plant species. In addition, support should be given to initiatives to secure grant resources to eradicate invasive species and replace them with native plants that provide habitat and food sources for birds and other native wildlife.

CONTAMINATED SITES

The Issue

Contaminated sites are areas of land where soil, surface water or groundwater contamination from hazardous materials occur at concentrations above acceptable levels and where assessment indicates it poses, or is likely to pose, an immediate or long-term hazard to human health or the environment.

Every community in New York State is affected by contaminated and abandoned properties, also known as "brownfield" sites. Left untouched, brownfields pose environmental, legal and financial burdens on a community and its taxpayers. These sites that were once a source of economic vitality to the region now contribute to environmental degradation, potential health risks, urban decay, decreased tax revenue and population loss.

Contaminated site assessment and management in Erie County is the responsibility of the New York State Department of Environmental Conservation (NYSDEC). The NYSDEC:

- Maintains an inventory of inactive hazardous waste sites
- Remediates priority sites
- Manages the State and Federal hazardous waste manifesting documentation system

New York offers incentives in the form of technical and financial assistance, as well as liability relief, to encourage the clean-up and reuse of contaminated sites. Incentive programs target both the public and private sector. NYSDEC also oversees cleanups of inactive hazardous waste disposal sites and petroleum/chemical spills.

Incentive programs, along with the increased economic vitality and community pride that accompanies the remediation of contaminated sites, should make cleaning up and reusing these sites a top priority for Erie County policy makers.

The Indicators

Progress on Erie County's remediation of contaminated sites over the past year will utilize the **2011 and 2012 NYSDEC Environmental Site Remediation Database**. The NYSDEC generates annual reports that provide updates regarding both the classification and remediation progress for the sites listed in their Inactive Hazardous Waste Sites Register (Class 1-5) as well as reports that summarize the annual progress and clean-up accomplishments associated with unlisted sites through the brownfield and other voluntary clean-up initiatives (Class A & C).

The Assessment

Positive Progress:

- No increase in the number of Class 1 or Class 2 sites
- Increase in Class 4 sites
- Increase in Class C sites that have been satisfactorily remediated

Negative Changes:

- Increase in Class A Sites where remediation has not yet been completed

Environmental Site Remediation Progress, 2011-2012

Site Class	*Description*	*2011*	*2012**	*Change*
Class 1	Causing, or presenting an imminent danger of causing irreversible or irreparable damage to public health or the environment- **immediate action is required**	0	0	0
Class 2	Significant threat to public health or the environment- **action required**	22	22	0
Class 3	Does not present a significant threat to the environment or public health- **action may be deferred**	7	7	0
Class 4	Site properly closed- **requires continued management**	29	30	1
Class 5	Site properly closed- **does not require continued management**	4	3	-1
Class A	A non-registry contaminated site undergoing remediation which is not complete	37	41	4
Class C	A non-registry contaminated site that has been satisfactorily remediated	57	62	5

**As of April 2012*

The Recommendation

Despite the progress that has been achieved over the past year, there are objectives that should be targeted to reduce Erie County's current contaminated sites inventory.

Erie County should work to properly close current Class 2 sites needing action, allowing for their transfer into Class 4 and 5 sites. Doing so will help mitigate the risks these sites pose to both the environment and public health, allowing for recovery and economic development.

Erie County should also work to transfer Class A sites where remediation has not yet been completed to Class C sites where remediation has been achieved. This will allow current Class A sites to once again become available to public or private development, thus creating tax revenues for local governments and jobs on currently unused land.

Examples of past projects include:

- *Buffalo RiverBend Development Plan* is a component of the South Buffalo Brownfield Opportunity Area (BOA) implementation strategy, which is made in the context of the land use and development recommendations made in the South Buffalo BOA Master Plan. A final development plan was approved by the Buffalo Urban Development Corporation board in June 2011.

- Heritage Discovery Campus is in South Buffalo along the Buffalo River. It is a restored Buffalo Color (Allied Color) facility. This brownfield site cleanup was voluntarily funded by Honeywell Corporation.

- *Bethlehem Steel* in the city of Lackawanna is an ongoing initiative being addressed under the State's RCRA Corrective Action Program and the Brownfield Cleanup Program.

- *Spaulding Fibre* in Tonawanda is being cleaned up through the Environmental Restoration and State Superfund Programs. The site was subdivided into 7 operable units (OUs). Remediation of all OUs was completed and the site is being prepared for redevelopment.

The current remediation programs available in the County are addressing many contaminated sites. However, the list of classified sites is extensive and it is important that Erie County, local governments, and the private sector continue to collaborate with the NYSDEC to utilize these alternative clean-up programs. Erie County should:

- Ensure that ecological assessments and the entire clean-up process evaluate and mitigate any risk to sensitive species and habitats.

- Utilize the NYSDEC website to track and obtain environmental data on the status of contaminated sites found at the following link:
  http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3.

- Continue to assist and support local municipalities and the private sector in participating in the state brownfield clean-up program and other voluntary clean-up programs, which convert contaminated sites into developable tax paying properties.

- Actively recommend and encourage New York State to reauthorize and restore funding for the State's Environmental Restoration Program Initiative which provides local governments the necessary seed money to promote brownfield clean-ups and the redevelopment of contaminated sites.

- The NYSDEC Brownfield Cleanup Program (BCP) is set to sunset in 2015. This means that clean-ups in this program must be completed by 2015 if tax incentives are to be obtained. The County should recommend and encourage New York State to keep the BCP current so developers will be encouraged to undertake brownfield clean-ups and redevelopment of contaminated sites.

- Facilitate and realize remediation of contaminated lands utilizing the BOA process. Doing so will help create jobs, improve surrounding property values, restore ecological habitats, provide public access to waterways, and enhance recreational opportunities.

- Implement green infrastructure techniques to remediate aging buildings, encourage redevelopment of brownfields, protect taxpayers from the burden of new infrastructure expenditures, protect the County's natural spaces, wetlands, farms, and forests, and spur economic growth.

- Erie County should market shovel-ready properties to companies out of state, and across the US-Canadian border, to encourage new development and business to move back into the County, and help decrease the trend of people being forced to leave Erie County to find jobs.

County of Erie County

Department of Environment & Planning

Division of Environmental Compliance Services

MEMORANDUM

To: MARK C. POLONCARZ
County Executive

From: MARIA WHYTE
Commissioner, Environment and Planning

Date: October 11, 2012

Re: Erie County Environmental Management Council – 2012 State of the County Environment Report

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Attached for your review and consideration is the 2012 State of the County Environment Report prepared by the Erie County Environmental Management Council (ECEMC). As required by Section 23-A-03 of the Erie County Charter the ECEMC compiles an annual State of the Environment Report for submission to the County Executive and the Legislature by September 30th of each year. This year's 2012 Report was approved by the EC EMC on September 18, 2012.

The Chair of the ECEMC and a small group of the other members would like to meet with you to discuss the recommendations in the annual State of The Environment Report. I plan to sit in on any meeting they may have with you.

Thank you.

C. Richard Tobe, Deputy County Executive

Erie County Environmental Management Council

Evelyn Hicks
Chair

95 Franklin
Room 1077
Buffalo, NY 14202

(716) 858-6370
FAX: 858-7713

October 1, 2012

Honorable Mark Poloncarz
95 Franklin Street, 16th Floor
Buffalo, New York 14202

RE: 2012 Erie County State of the Environment Report

Dear County Executive Poloncarz:

As required by Section 23-A-03 of the Erie County Charter, we have attached the 2012 State of the Environment Report and Summary of Progress approved by the Erie County Environmental Management Council (EC EMC) on September 18, 2012.

The State of the Environment report is a comprehensive look at the health of the County's natural environment. It was prepared by the volunteer members of the EC EMC who work to improve the County's environmental, ecological, human and economic health. Staff and unpaid interns from the Department of Environment & Planning worked with EC EMC to prepare the report.

In September 2013 and annually thereafter we will prepare and transmit to you an update on the state of the environment in Erie County and new or amended priorities based on the latest State of the Environment report.

We look forward to continuing our work with you on issues that preserve our natural resources for future generations, improve the quality of the County's environment and, in doing so, the quality of life in Erie County.

Sincerely,

Evelyn Hicks
Chair, Erie County Environmental Management Council
Town of West Seneca Representative

cc: Erie County Legislature

On behalf of the members of the Erie County Environmental Management Council:

Jerold Bastedo, At-large
Peter Sorgi, At-large
Rosa A. Gonzalez, At-large
Paul Furhmann, At-large
James Simon, At-large
George Besch, At-large
Jill Jedlicka, At-large
Jay Burney, At-large
Douglas Bartlebaugh, (T) Alden
Conn Keough, (T) Amherst
Don Owens, (T) Aurora
Richard Lee, (T) Boston
Hon. Len Pero, (T) Brant
Dennis Sutton, (C) Buffalo
Jennifer Logan-Wiertel, (T) Clarence
Michelle Roberts, (T) Colden
Lamont Beers, (T) Eden
Fred Streif, (T) Elma
Jere Hoisington, (V) Farnham
Sam Akinbami, (T) Grand Island
Melanie Hamilton, (T) Hamburg
Adrienne Punturiero, (V) Hamburg
William Kolacki, (T) Holland
Kathleen Johnson, (V) Kenmore
Hon. Mark Aquino, (T) Lancaster
Tim Kelly, (V) Lancaster
Beth Ackerman, (T) Marilla
Lewis Tandy, (T) Newstead
Marian Vanni, (T) North Collins
Anne Bergantz, (T) Orchard Park
Darren Farthing, (T) Sardinia
Kevin Burd, (T) Tonawanda
Peter Tarnawskyj, (T) Wales

Erie County Environmental Management Council

2012 State of the Environment Report

2012 Erie County Environmental Management Council
State of the Environment Report
Summary of Recommendations

The Erie County Environmental Management Council's State of the Environment report sets the stage for strategic planning, as well as priority-setting for the allocation of resources to address environmental issues. The report is divided into nine sections: Air Quality; Water Quality; Energy Use; Solid Waste Management; Land Use; Transportation; Toxic Emissions; Contaminated Sites; and Ecosystem Health. The following summary of priorities highlights the key recommendations made in those sections.

2012 State of the Environment Report Top Priorities

- "Green" internal County operations and facilities
- Pursue regional water quality projects
- Map the County's environmental assets
- Improve County infrastructure to encourage greener modes of transportation
- Increase the number of household hazardous waste collection events
- Support reauthorization of Brownfields funding

<u>Green Internal County Operations and Facilities</u>

Across the country, many government agencies and institutions have realized the environmental and economic benefits of greening their own internal operations and facilities. There are opportunities throughout Erie County government to make environmental improvements such as: energy conservation; comprehensive internal recycling programs; and public recycling programs at County Parks. Many of these efforts would lead to cost savings, as well as environmental benefits.

The EC EMC recommends:

- The County should hire a Sustainability Coordinator to run an Erie County Green Team consisting of representatives from all County departments. The Sustainability Coordinator and the Green Team members would be charged with identifying, prioritizing, and implementing potential projects.

- Greening projects to be considered should include: recycling at County facilities, renewable energy projects at County facilities, energy conservation, green purchasing, solid waste reduction, and energy conservation through fleet management.

Pursue regional water quality projects

As part of the Great Lakes basin, Erie County recognizes its water resources as a key asset to the health and vitality of the community – environmentally, economically, and socially. These resources are valuable for aesthetic, recreational, personal, and occupational purposes and are a key asset to the County's commercial, industrial, and agricultural sectors. Aging infrastructure in the form of storm sewers, sanitary sewers, and septic systems makes it difficult to prevent the contamination of the County's fresh water resources. In order to address these issues, the Erie County Water Quality Committee works with Cattaraugus and Chautauqua counties to collaborate on the Lake Erie Watershed Protection Alliance (LEWPA). The organization's goal is to alleviate non-point source pollution in the New York State portion of the Lake Erie watershed.

The EC EMC recommends:

- The County's Water Quality Committee should continue to work with Chautauqua and Cattaraugus counties on the Lake Erie Watershed Protection (LEWPA) to identify ways to repair and replace aging infrastructure.
- Erie County continue to work with LEWPA, Buffalo Niagara Riverkeeper, and other water protection organizations to promote the protection of our Great Lakes resource and better position Erie County to pursue, secure and utilize local, state and federal funds.

Map the County's environmental assets

Land use is the basis on which we determine and protect our environmental quality as well as identify and characterize open space, habitat, natural areas, and their relationship to development and developed areas including farmland, commercial, industrial and urban areas. Erie County's natural landscape provides valuable ecological services that can be quantified- water treatment, stormwater management, and air quality improvement.

The loss of rural, agricultural, and environmentally-sensitive lands as a result of growing urbanization brings with it higher levels of impervious surfaces, less forest cover, expansion of public water and sewer infrastructure, and longer commutes with attendant greenhouse gas emissions. This places the region's best agricultural lands, major riparian corridors, wetlands, floodplains, and forests

under greater stress and at more risk. Although the mapping included in the 2006 Erie and Niagara Counties Framework for Regional Growth is a valuable start, further specificity and monitoring of the Framework's policies and development targets is essential in order to conserve valuable natural resources and better channel new development.

The EC EMC recommends:

- An allocation of resources within an existing or new organization to allow proper tracking of land use changes over time.
- GIS mapping systems should be used to provide baseline environmental indicators that quantify land use in Erie County.

Improve County infrastructure to encourage greener modes of transportation

As a result of urban sprawl and the increased dependence on the automobile which has accompanied it, our environment has become increasingly exposed to greater levels of emissions from exhaust. These emissions pollute our air, cause health-damaging smog, and threaten the Earth's protective ozone layer. Such developments are not environmentally sustainable in the long run, and action is needed to slow sprawl and lessen our dependence on the automobile. The key to reducing pollution generated by automobiles is to encourage people to walk, bike, carpool, and take public transit more often so as to encourage a healthier living environment.

The EC EMC recommends:

- Improved bike lane marking on County roads.
- The use of the "Complete Streets" concept in County planning efforts.
- County promotion of the use of public transportation.

Increase the number of household hazardous waste collection events

Since 1988, Erie County has played a unique role in offering programs which provide disposal opportunities to residents, schools, businesses and municipalities for problematic waste streams that should not be placed with regular trash and require special handling and disposal. These programs include the Household Hazardous Waste Collection Program, the Conditionally Exempt Small Quantity Generator Program, the Pharmaceutical Waste Collection Program and Electronic Waste Recycling Program. The County's Household Hazardous Waste Program continues to draw large numbers of participants and collect thousands of gallons of hazardous waste. The demand for these events has increased, while the number of events has decreased. This often results in long waits for residents with more than 1,000 participants at each of the 2012 events.

The EC EMC recommends:

- Increased funding for staff and program expenses for these programs, so that more household education and collection events can be held.

Support reauthorization of Brownfields funding

Every community in New York State is affected by contaminated and abandoned properties, also known as "brownfield" sites. Left untouched, brownfields pose environmental, legal and financial burdens on a community and its taxpayers. These sites that were once a source of economic vitality to the region now contribute to environmental degradation, potential health risks, urban decay, decreased tax revenue and population loss.

New York State offers incentives in the form of technical and financial assistance, as well as liability relief, to encourage the clean-up and reuse of contaminated sites. Incentive programs target both the public and private sector. New York State Department of Environmental Conservation oversees cleanups of inactive hazardous waste disposal sites and petroleum/chemical spills.

The NYSDEC Brownfield Cleanup Program (BCP) is set to sunset in 2015. This means that clean-ups in this program must be completed by 2015 if tax incentives are to be obtained.

The EC EMC recommends:

- The County should recommend and encourage New York State to keep the BCP current so developers will be encouraged to undertake brownfield clean-ups and redevelopment of contaminated sites.
- The County should actively recommend and encourage New York State to reauthorize and restore funding for the State's Environmental Restoration Program Initiative which provides local governments the necessary seed money to promote brownfield clean-ups and the redevelopment of contaminated sites.

Solid Waste Management

The Issue

Municipal Solid Waste (MSW), more commonly known as trash or garbage, consists of everyday items we use and then discard. Proper management of MSW should follow United States Environmental Protection Agency's hierarchy by incorporating, in order of priority, a combination of waste reduction, recycling, energy recovery and landfilling. The EPA reports that, on average, individuals generate 4.43 pounds of MSW per day with approximately 1.5 pounds recycled or composted.

The management of MSW in Erie County is administered at the town level of government. This has resulted in diverse MSW collection, recycling and disposal operations across 44 cities, towns and villages. The collection of MSW may be accomplished by municipal employees or through town contracts with private disposal firms. In still others, it is up to the individual homeowner to either arrange for pickup by a private firm for collection or take refuse to a central municipal transfer station.

The processing of recyclables and MSW disposal is done by private companies in Erie County. MSW in Erie County is either sent to the Chaffee Landfill in southern Erie County, Modern Landfill or Allied Landfill in Niagara County or the Covanta MSW Incinerator in Niagara Falls.

There are two Solid Waste Management Boards (SWMBs) in Erie County. The Northwest SWMB encompasses the six larger suburban municipalities in Erie County. The Northeast Southtowns SWMB represents thirty seven suburban and rural municipalities. The City of Buffalo, for MSW planning purposes, is independent and is not a member of either SWMB. The SWMBs act in an advisory capacity for MSW management. The Erie County Department of Environment and Planning (ECDEP) provides administrative and logistical support for the SWMBs reporting requirements to the New York State Department of Environmental Conservation (DEC). Each SWMB is also required to develop and implement a Solid Waste Management Plan (SWMP). Every ten years this plan must be updated to reflect changes in federal, state and local regulations.

The Indicators

The selected indictors for solid waste are:

- Annual tons of MSW generated
- Annual tons of household hazardous waste collected at County events

Waste reduction and recycling efforts are captured in the annual tons of MSW generated in the County. This is a more accurate portrayal of waste reduction and recycling efforts than recycling rates which may fluctuate. For example, the overall recycling rate might decrease based on waste reduction efforts, such as designing lighter packaging or reducing consumption of materials.

The household hazardous waste collected through County indicates the amount of these hazardous chemicals in the waste stream, as well as demand for this program.

The Assessment

The chart below summarized the selected indicators.

MSW Generated in Erie County

Year	Approximate Total Tons of MSW Generated	Pounds of MSW generated per Capita *	Pounds of MSW Generated per Person per Day
2009	829,619.13	1,805.40	4.95
2010	774,553.78	1,685.57	4.62
2011	661,447.26	1,439.43	3.94

**Erie County population of 919,040 (2010 census)*
Source: NYS DEC landfill and incinerator reports

These figures show a reduction in MSW generated, which can be attributed to enhanced City of Buffalo and Town of Amherst recycling programs.

Household Hazardous Waste Events

Year	Number of Events	Number of Participants	Pounds of Pesticides Collected	Gallons of Other* Waste Collected
2007	4	3,089	15,150	32,709
2008	3	2,630	9,946	44,327
2009	3	2,740	13,832	46,785
2010	2	1,957	9,415	31,680
2011	2	1,651	9,215	43,530
2012	2	2,421	6,762	50,737

** Includes paint, oil, antifreeze, gasoline, aerosols, adhesives, acids and oxidizers*
Source: Erie County DEP

The County's Household Hazardous Waste Program continues to draw large numbers of participants and collect thousands of gallons of hazardous waste. The demand for these events has increased, while the number of events has decreased. This often results in long waits for residents with more than 1,000 participants at each of the 2012 events.

Recommendations

The December 2010 DEC MSW plan entitled "Beyond Waste, A Sustainable Materials Management Strategy for New York State". calls for a number of regulatory and voluntary programs, such as:

1. Employing waste prevention strategies first, with the goal of reducing solid waste disposal to 0.6 pounds per capita by 2030.
2. Reinforcing recycling requirements for all individuals, whether they are at home, at work, at school or in public spaces.
3. Restricting the disposal of recyclables and hazardous products where recovery options are readily available.

Erie County should focus efforts on the aforementioned three objectives by doing the following:

1. Waste Prevention

Erie County has the opportunity to lead by example in the area of waste prevention by initiating efforts to reduce or eliminate waste generation in County operations. To determine needs and opportunities, first an internal waste audit is needed. Waste prevention could include packaging reduction and returns, inventory management and materials reuse. Materials without reduction opportunities would then be evaluated for recycling options to ultimately minimize total waste generation. Contracts and current disposal accommodations would then be re-evaluated for further reduction. Once this process is completed, Erie County should then share that information with local municipalities.

2. Recycling Reinforcement

In addition to internal waste elimination, the County needs to support waste reduction and recycling for municipalities, residents and businesses. The County should continue its relationship with the two suburban Solid Waste Management Boards (SWMBs) to work toward achieving goals and objectives stated in their respective Solid Waste Management Plans.

Administrative and logistical support of the two Boards is critical to their continued viability and regulatory compliance. This can be achieved by securing a New York State Department of Environmental Conservation Municipal Waste Reduction & Recycling State Assistance Program Grant. Erie County has recently submitted a full application, which will provide funding for a full time Recycling Coordinator to assist SWMBs. The EMC further recommends that the Recycling Coordinator should:

- focus on educating the public regarding the cost savings associated with waste reduction and recycling; and
- explore legislation to reduce waste, such as a plastic bag ban.

3. Special Waste Disposal Needs

Since 1988, Erie County has played a unique role in offering programs which provide disposal opportunities to residents, schools, businesses and municipalities for problematic waste streams that should not be placed with regular trash and require special handling and disposal. These programs include the Household Hazardous Waste Collection Program, the Conditionally Exempt Small Quantity Generator Program, the Pharmaceutical Waste Collection Program and Electronic Waste Recycling Program.

The EMC recommends increased funding for staff and program expenses for these programs, so that more household education and collection events can be held. Currently the events are too infrequent to adequately serve the public. Public education for proper waste paint and pesticide disposal along with oil, battery and electronics recycling is also needed. Product stewardship legislation for paints, fluorescent bulbs and propane cylinders should be encouraged at the state level to mitigate the impact of these problem wastes. Recent changes in state regulations for non-alkaline batteries and electronic wastes will increase recycling opportunities available to the public. Residents, local officials and businesses should be kept informed as waste disposal and recycling options change. To that end, the EMC recommends that the County Recycling Coordinator compile and update a recycling guide for municipalities to reference regarding specific products such as compact fluorescent light bulbs and tires.

LAND USE

The Issue

For the purposes of this report, land use is "a fundamental environmental and ecological concept and tool that helps citizens and governments determine planning, zoning, conservation, and protection of land. A focus on land use is a critical component for a vital economy, sustainable neighborhoods, strong rural communities and improved access and mobility. Land use is the basis on which we determine and protect our environmental quality as well as identify and characterize open space, habitat, natural areas, and their relationship to development and developed areas including farmland, commercial, industrial and urban areas." Land Use impacts everything and is subject to many competing demands. We rely on our land resource for food, energy, agriculture, forestry, recreation, and cultural amenities, and to function within our ecological systems to protect the quality of our air, our water -- overall, for a good living environment.

Erie County's natural landscape provides valuable ecological services that can be quantified- water treatment, stormwater management, and air quality improvement. The loss of rural, agricultural, and environmentally-sensitive lands as a result of growing urbanization brings with it higher levels of impervious surfaces, less forest cover, expansion of public water and sewer infrastructure, and longer commutes with attendant greenhouse gas emissions. This places the region's best agricultural lands, major riparian corridors, wetlands, floodplains, and forests under greater stress and at more risk.

Prior to the adoption by the Erie County Legislature in 2006 of the Erie and Niagara Counties Framework for Regional Growth, the County had no planning tool to conserve valuable natural resources and better channel new development. Although the Framework is a valuable initial start, further specificity and monitoring of the Framework's policies and development targets is essential.

The Indicators

Land use is a fundamental indicator of environmental integrity. Assessing our land use in terms of environmental and ecological integrity relies on the creation of a baseline of quantifiable understanding. By working with existing and future GIS mapping systems to quantify areas in the following categories we can begin to develop a net gain and loss indicator model that will provide all future generations with access to planning and protection needs, goals, milestones, and successful land use planning and protection. The ECEMC should advocate for the allocation of resources within an existing or new organization thereby allowing proper tracing of land use changes over time.

We propose to categorize indicators in the following environmentally responsible categories: **Protected Areas; Areas that are Not Protected but Should Be; Areas that are difficult to Protect; Threats.** (Source: Framework for Regional Growth).

The Assessment

Wetlands

Many of the wetlands that were originally here in Western New York have been destroyed by dredge and fill activities, drainage, development, pollution, and natural causes. Floodplain and riparian areas that buffer surface water have diminished as well. Erosion, flooding, and sedimentation have resulted.

Wetlands, floodplains, and healthy riparian corridors provide natural open space, filter pollutants from water, provide flood protection, recharge aquifers, maintain dry season stream flows, stabilize shorelines from erosion, and provide habitat for fish and wildlife.

NYS regulates wetlands greater than 12.4 acres in size or of unusual local importance. As of February 2012, Erie County had 319 NYS regulated wetlands totaling 19,940 acres. That is an increase of 46 acres from 2008, represents 3 percent of the County and affects 2,600 landowners. Wetlands are continually reassessed – new wetlands are added, boundaries adjusted, and wetlands removed. (www.dec.ny.gov/lands/5124.html, accessed April 4, 2012).

U.S. Army Corps of Engineers (ACOE) federal jurisdiction wetlands have expanded significantly in Erie County, particularly with the inclusion of the Northeast Wetland delineation supplement adapted in March 2010. This expansion has impacted all aspects of development, land disturbance and planning and designing future projects. Any impact of over 0.1 of an acre of

federal jurisdiction will require creating wetland in an upland area after receiving ACOE authorization to impact the wetland.

Farmland

Agriculture plays an important role in the County's economy. The USDA reported agricultural sales in Erie County of over 117 million dollars in 2007. (National Agricultural Statistics Service, USDA, Statistics by State, Annual Statistical Bulletin, 2011) Agricultural activity provides employment, supports the local food system and is essential to the region's food security. Well-managed, privately held agricultural lands also have environmental and social benefits: they act as a natural stormwater filtration system, provide food and cover for wildlife, conserve environmentally sensitive lands and maintain scenic, cultural, and historical landscapes (Source: Framework for Regional Growth). The loss of farms and farm acreage has a negative impact on the County's economy.

Between 2002 and 2007, the most recent available data, there was a loss of 74 farms and 12,391 acres of farmland in the County. As of 2007, there were 1,215 farms and 149,356 acres of farmland in Erie County. (Source 2002 and 2007 Census of Agriculture)

One of the keys to Western New York's resurgence will be recognizing that our land is a unique and valuable asset. Erie County has the soils, the climate, and the water needed to grow food. The returns from land used for well-practiced farming will be such that the value of an acre of farmland will surpass that of land sold for development.

Urbanized Area

The region's urbanized area has increased rapidly over the past several decades, while population has declined, leaving fewer people to pay for increased infrastructure. From 1980 to 2000, the urbanized area in Erie and Niagara Counties increased by 101 square miles, from 266 square miles in 1980 to 367 square miles in 2000. Over the same time, the County's population decreased by 66,011. The Framework for Regional Growth graphically depicts the change in urbanized area in Erie County over that time within the context of regional growth (urbanized area is reported on a Metropolitan Statistical Area basis – Erie and Niagara Counties – as defined by the U.S. Census Bureau).

Recommendations

1. Use GIS mapping systems to provide baseline 2012 indicators that quantify land use in Erie County with particular reference to the Environmental Indicators identified in this section. These baseline indicators will be critical tools to help determine net gain and loss of environmentally significant areas over time and will help determine strategies to protect our environmental heritage for generations to come.

2. Continue to develop County wide land protection programs and models that explore land banking, energy production and infra-structure concerns, natural resources extraction, farmland and open space protection, wetlands protection, green and wildlife corridors, public access, education, and threats assessments.

3. Recognize the importance of Erie County Legislators' support for local municipal conservation easement programs.

4. The EMC should continue to partner with towns, villages and local planning organizations such as the Greater Buffalo-Niagara Regional Transportation Council, Buffalo-Niagara Riverkeeper, and the Cornell Extension to foster projects that protect natural spaces, wetlands, farms and farm acreage, forests and riparian corridors.

5. The County should focus economic development efforts in areas with existing infrastructure.

6. The County and the EMC should encourage the collaboration among appropriate U.S. and Canadian partners on projects like a marine sanctuary in Lake Erie and the Niagara River, as well as preserving the globally significant bird habitat.

7. The ECEMC and the ECDEP should continue to analyze the results of the 2010 U.S. Census to determine what measures have already been taken and to identify further policy and administrative steps that can be implemented to continue on the road to economic growth and environmental quality.

8. Plan and hold an event that educates Erie County lawmakers, business people, and citizens about land conservation and cluster development.

AIR QUALITY

The Issue

Air in Western New York enters the state principally through the prevailing westerly winds blowing across the heavily industrial Midwestern states. When it arrives, it already contains significant contaminant loading.

Within Erie County, ambient air impurities are emitted from **area sources** (e.g. dry cleaners, gas stations and auto body paint shops), **point sources** (such as major industrial facilities, chemical plants, steel mills, oil refineries, power plants and hazardous waste incinerators), and **mobile sources** including both on-road vehicles (cars, trucks, buses) and off-road equipment (ships, airplanes, agricultural and construction equipment).

Regulations for air quality have been set for the protection of public health. Continuous exposure to toxic air contributes to serious health problems including cancer, respiratory ailments, and heart disease. Poor air quality has serious economic impacts because it is directly linked to an increase in missed work days and emergency room visits.

The New York State Department of Environmental Conservation (NYSDEC) is responsible for regulating Ambient Air Quality in Erie County. Erie County has the most ambient air sampling locations in NYSDEC's upstate Ambient Air Monitoring Network, including four continuous sampling sites in Amherst, Tonawanda, Buffalo and Lackawanna. These facilities are required to measure air quality to determine whether or not the state's ambient air meets the prevailing National Ambient Air Quality Standards (NAAQS).

The Indicators

The Clean Air Act Amendments of 1990 require the United States Environmental Protection Agency (EPA) to establish **National Ambient Air Quality Standards** for pollutants considered harmful to public health.

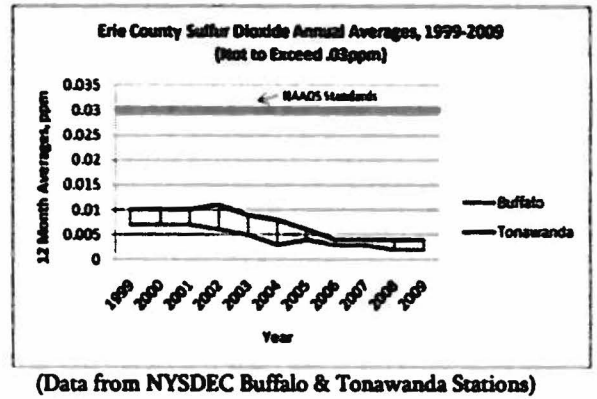
The EPA has set standards for six pollutants considered harmful to public health:

- ground-level ozone
- particle pollution (particulate matter)
- carbon monoxide
- sulfur dioxide
- nitrogen dioxide
- lead

The Assessment

Of the six aforementioned NAAQS pollutants, this report will examine **sulfur dioxide** and **ground-level ozone** levels in Erie County for the period 1999 to 2009.

Sulfur dioxide is a byproduct of the combustion of coal and petroleum typically emitted from industrial sites. High concentrations of sulfur dioxide can influence habitat suitability and plant communities. In addition, sulfur dioxide emissions are a precursor to acid rain and atmospheric particulates. Sulfur dioxide emissions for Erie County are gathered from the Buffalo and Tonawanda air monitoring stations.



(Data from NYSDEC Buffalo & Tonawanda Stations)

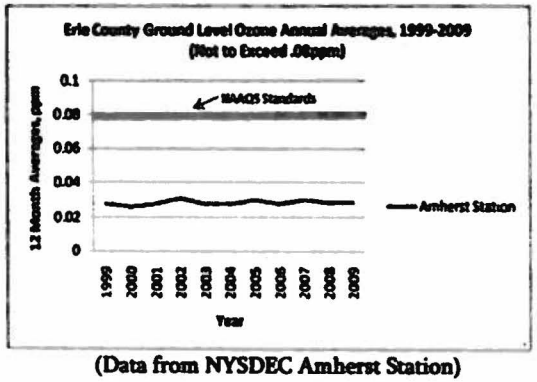
Data from the above chart indicates that over the period sulfur dioxide levels within Erie County have remained consistently below the NAAQS recommendations. However, levels measured from the Tonawanda station deviate greatly from levels gathered from the Buffalo station. This information suggests that people residing in areas close to Tonawanda are exposed to higher levels of sulfur dioxide compared to their neighbors in Buffalo and thus, are at a higher health risk.

These findings may be a product of the fact that the point source that emits the greatest amount of sulfur dioxide in Erie County is located in Tonawanda. C. R. Huntley, a coal-fired power plant, emits 48,484 tons of sulfur dioxide per year. This figure is nearly ten times greater than the next highest emission facility, Bethenergy located

in Lackawanna, and is greater than the next top 25 emission facilities in Erie County combined.

In October 2011, the NYDEC updated the 2009 Tonawanda Community Air Quality Study, reporting that levels in the ambient concentrations of benzene and other air pollutants within the Tonawanda community had been reduced.

In the upper atmosphere, ozone protects the Earth from damaging ultraviolet radiation; at the ground level however, it is an environmental and health hazard. Excessive levels of ground-level ozone can produce respiratory disease, damage crops, depress commercial forest yields, and jeopardize the long term health of the environment. In addition, ground-level ozone can also trigger haze over communities which restrict visibility, thus placing drivers and pedestrians at higher risks for accidents. Ground-level ozone emissions for Erie County are gathered from the Amherst air monitoring station.



(Data from NYSDEC Amherst Station)

Data from the above chart indicates that over the period ground-level ozone levels within Erie County have also remained below the NAAQS recommendations. In addition, these levels have remained relatively constant, fluctuating very little between .02ppm and .04ppm every year.

Despite these findings, Erie County ranks 6th amongst New York State counties in yearly volatile organic compound emissions, behind only Kings, New York, Suffolk, Queens, and Nassau counties. These emissions are the leading cause of ground-level ozone. In addition, only 30% of U.S. counties have higher 8-hour ozone concerntrations than Erie County. Further, in 2003 Erie County experienced seven days in which NAAQS were above recommended safety levels.

The Recommendation

There are several important strategies County agencies and officials can take to improve our air quality and public health.

First, the County should support environmental non-profit organizations, such as the Clean Air Coalition of Western New York (CACWNY), that are dedicated to reducing air pollution. Community activism in Tonawanda spearheaded by the CACWNY contributed to enforcement actions by the EPA and NYSDEC against Tonawanda Coke, a major source of industrial emissions in the area. To that end, the EMC is supporting the CACWNY in its efforts to expand air quality monitoring in Erie County to include the lower west side/Peace Bridge Neighborhood.

The EMC recommends that the County Executive and the Legislature write a letter of support to the Commissioner of NYSDEC for this important monitoring effort.

The EMC has also voted to support the CACWNY in its USEPA funded CARE program in Tonawanda, which involves a broad-based partnership of stakeholders in Tonawanda who want to reduce toxins in their community. Community members will be able to voice their concerns through photography and public meetings. The project will also train the stakeholders on ways to track releases, use government databases and test air quality.

Second, the County can partake in programs that encourage the public to take steps to reduce their own footprint on air quality. Included in this would be educating residents about outdoor burning restrictions, and the health and safety hazards of outdoor burning. With funding provided by the EPA, the DEC offers a grant initiative to help municipalities with public outreach and the purchase of equipment to provide alternative means for disposal of organic waste.

Finally, it is a reality that air quality will not always remain safe at all times. The County should help alert the public when local air quality does not meet safety standards. Doing so will help reduce citizen exposure to harmful pollutants.

WATER QUALITY

The Issue

As part of the Great Lakes basin, Erie County recognizes its water resources as a key asset to the health and vitality of the community – environmentally, economically, and socially. These resources are valuable for aesthetic, recreational, personal, and occupational purposes and are a key asset to the County's commercial, industrial, and agricultural sectors.

Erie County is home to plentiful and diverse water resources that define our region. There are 17 major watersheds and 36 major streams in the County draining into Lake Erie or the Niagara River. Industrial, agricultural, suburban, and urban development greatly impact surface and groundwater quality in Erie County.

Tainted water supplies may cause chronic health effects that occur long after repeated exposure to contaminants. Health issues, such as cancer, liver and kidney damage, disorders of the nervous system, and birth defects can occur. The atmosphere contains water vapor that evaporates from water bodies; evaporation from polluted sources increases the likelihood of acid rain. Contaminated water also affects the survival of entire species, including both waterborne and land animals.

In Western New York, aging infrastructure in the form of storm sewers, sanitary sewers, and septic systems makes it a difficult battle to prevent the contamination of the County's fresh water resources. Federal, state and local organizations are tasked with the goal of protecting and enhancing water quality for the biodiversity of aquatic communities, and providing standards and criteria to maintain the health of human populations.

The federal United States Environmental Protection Agency (USEPA) has established standards for ground water, surface water, and drinking water. Criteria are also in place for water quality, nutrient levels, and recreational safety.

The New York State Department of Environmental Conservation (NYSDEC) is responsible for monitoring water quality in the state. The NYSDEC regulates wastewater treatment and disposal and is responsible for monitoring recreational and drinking water quality.

At the local level it is the mission of the Erie County Water Quality Committee (ECWQC) to protect and improve water quality. The ECWQC is responsible for developing and maintaining a Water Quality Strategy for Erie County (see January 2011 Water Quality Strategy) and fosters collaboration among local governments and stakeholders. Buffalo Niagara Riverkeeper, a science-based, community focused, advocacy non-profit, works closely alongside the ECWQC to protect and remediate local water resources.

Additionally, the Western New York Stormwater Coalition (WNYSC) is made up of 42 regulated Municipal Separate Storm Sewer Systems (MS4s) in Erie and Niagara counties. They work together and share resources to develop a stormwater management program to protect local waterways and enhance the quality of life in our region.

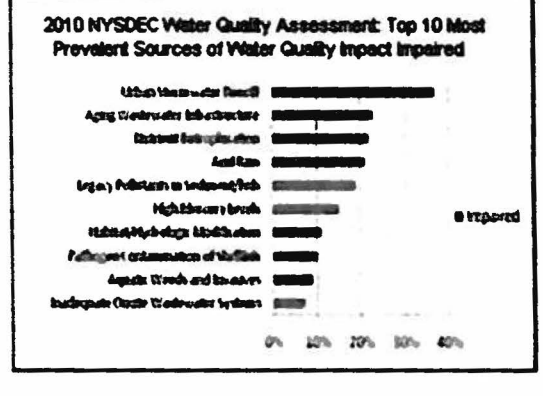
Finally, Erie, Cattaraugus, and Chautauqua counties collaborate in the Lake Erie Watershed Protection Alliance (LEWPA). The organization's goal is to alleviate non-point source pollution in the New York State portion of the Lake Erie watershed.

The Indicators

In an effort to capture the health of the County's waters, our assessment has been based on the **2010 NYSDEC Water Quality Assessment.**

The NYSDEC Water Quality Assessment is compiled by the NYSDEC Division of Water using monitoring data and information from programs both within and outside of the department. It contains assessments for just over half of the nearly 5,000 waters identified across the state. While not County specific, the information indicated in the study is considered representative of the causes/sources of water quality impairment throughout the state. The assessment identifies the top ten water quality issues facing New York State water supplies

The Assessment



The above graph shows the frequency for which a specific source is a sigificant contributing factor to water quality in NYS. It illustrates the occurrence of each cause/source as a percentage of all waters assessed as impaired.

Urban stormwater runoff is the most serious threat to Erie County water quality. Stormwater runoff is generated when precipitation from rain and snowmelt flows over land or impervious surfaces such as paved streets, parking lots, and rooftops. Consequently, it accumulates and transports chemicals, nutrients, sediment, and debris. If the runoff is not captured or is discharged without first being treated, it can adversely affect water quality in receiving lakes, rivers, and estuaries.

Combined Sewer Systems and MS4s are the two types of wastewater conveyance systems used to manage sewage and surface runoff (i.e. stormwater). The issue in Erie County is that nearly 30% of these systems are in excess of 60 years old.

Combined Sewer Systems, typical in older urban cities, combine both stormwater and sanitary sewage during precipitation/snowmelt events. When the volume of combined flow exceeds the capacity of the sewers, the combined system, by design, relieves itself by discharging excess flow into local waterways. The release of this combined flow, raw sewage and stormwater, is known as a Combined Sewer Overflow or CSO.

MS4s keep stormwater separate from human waste and other substances in sanitary sewers which serve homes and businesses. Unfortunately, rapid population growth in MS4 communities has pushed the capacity of sanitary sewers to the limit which may result in the discharge of raw sewage to local waterways via storm sewers. The release of sewage into a separate storm sewer system is known as a Sanitary Sewer Overflow or SSO.

The Recommendations

The improvement of water quality will require upgrades to wastewater treatment infrastructure including MS4s, CSOs and Publicly Owned Treatment Works (POTWs).

- To avoid overflow, sanitary sewer system capacity needs to be increased. However, due to the age and condition of our infrastructure, billions of dollars are required to replace or upgrade sanitary sewers.
- In order to repair, replace and update New York's municipal wastewater infrastructure, a conservative cost estimate has been set at over $35 billion over the next 20 years.
- Use of Best Management Practices (using Smart Growth concepts), educational outreach programs, green infrastructure, and technical assistance, along with the maintenance plans currently in place, is imperative in maintaining POTWs until incremental funding for system upgrades becomes available.

Reforming our infrastructure provides the opportunity to utilize innovative approaches encouraged by programs such as the Buffalo Niagara Riverkeeper's Green Infrastructure Plan, which include:

- Use of rain barrels designed to capture rainwater runoff from gutters that can be used for watering lawns and gardens; and
- Use of natural drainage systems and rain gardens that allow rainwater runoff to be absorbed into the ground rather than flowing into storm drains; and
- Use of vegetated green roofs that absorb stormwater runoff and release it back into the atmosphere.

An increase in regional collaboration with organizations, such as LEWPA, will help to determine the needs of the watershed, rather than basing such needs on individual municipalities.

The Western New York Stormwater Coalition has a number of initiatives for 2012 that will better manage the County's stormwater systems. This includes a $1.1 million grant to map stormwater infrastructure in the MS4 regulated area, as well as installing five rainwater cisterns in Tonawanda, Orchard Park, Aurora and South Buffalo, which will result in savings of over 2 million gallons of potable water.

A partnership between the EPA, Buffalo Niagara Riverkeeper, NYSDEC, and U.S. Army Corps of Engineers has developed and implemented plans to address environmental issues facing the Buffalo River, including contaminated sediments, poor water quality and insufficient wildlife habitats. Phase II of the Buffalo River Dredging of about 500,000 cubic yards of contaminated sediment could begin in Fall 2013.

CONTAMINATED SITES

The Issue

Contaminated sites are areas of land where soil, surface water or groundwater contamination from hazardous materials occur at concentrations above acceptable levels and where assessment indicates it poses, or is likely to pose, an immediate or long-term hazard to human health or the environment.

Every community in New York State is affected by contaminated and abandoned properties, also known as "brownfield" sites. Left untouched, brownfields pose environmental, legal and financial burdens on a community and its taxpayers. These sites that were once a source of economic vitality to the region now contribute to environmental degradation, potential health risks, urban decay, decreased tax revenue and population loss.

Contaminated site assessment and management in Erie County is the responsibility of the New York State Department of Environmental Conservation (NYSDEC). The NYSDEC:

- Maintains an inventory of inactive hazardous waste sites
- Remediates priority sites
- Manages the State and Federal hazardous waste manifesting documentation system

New York offers incentives in the form of technical and financial assistance, as well as liability relief, to encourage the clean-up and reuse of contaminated sites. Incentive programs target both the public and private sector. NYSDEC also oversees cleanups of inactive hazardous waste disposal sites and petroleum/chemical spills. Incentive programs, along with the increased economic vitality and community pride that accompanies the remediation of contaminated sites, should make cleaning up and reusing these sites a top priority for Erie County policy makers.

The Indicators

Progress on Erie County's remediation of contaminated sites over the past year will utilize the **2011 and 2012 NYSDEC Environmental Site Remediation Database**. The NYSDEC generates annual reports that provide updates regarding both the classification and remediation progress for the sites listed in their Inactive Hazardous Waste Sites Register (Class 1-5) as well as reports that summarize the annual progress and clean-up accomplishments associated with unlisted sites through the brownfield and other voluntary clean-up initiatives (Class A & C).

The Assessment

Positive Progress:

- No increase in the number of Class 1 or Class 2 sites
- Increase in Class 4 sites
- Increase in Class C sites that have been satisfactorily remediated

Negative Changes:

- Increase in Class A Sites where remediation has not yet been completed

Environmental Site Remediation Progress, 2011-2012

Site Class	*Description*	*2011*	*2012**	*Change*
Class 1	Causing, or presenting an imminent danger of causing irreversible or irreparable damage to public health or the environment- immediate action is required	0	0	0
Class 2	Significant threat to public health or the environment- action required	22	22	0
Class 3	Does not present a significant threat to the environment or public health- action may be deferred	7	7	0
Class 4	Site properly closed- requires continued management	29	30	1
Class 5	Site properly closed- does not require continued management	4	3	-1
Class A	A non-registry contaminated site undergoing remediation which is not complete	37	41	4
Class C	A non-registry contaminated site that has been satisfactorily remediated	57	62	5

**As of April 2012*

The Recommendation

Despite the progress that has been achieved over the past year, there are objectives that should be targeted to reduce Erie County's current contaminated sites inventory.

Erie County should work to properly close current Class 2 sites needing action, allowing for their transfer into Class 4 and 5 sites. Doing so will help mitigate the risks these sites pose to both the environment and public health, allowing for recovery and economic development.

Erie County should also work to transfer Class A sites where remediation has not yet been completed to Class C sites where remediation has been achieved. This will allow current Class A sites to once again become available to public or private development, thus creating tax revenues for local governments and jobs on currently unused land.

Examples of past projects include:

- ***Buffalo RiverBend Development Plan*** is a component of the South Buffalo Brownfield Opportunity Area (BOA) implementation strategy, which is made in the context of the land use and development recommendations made in the South Buffalo BOA Master Plan. A final development plan was approved by the Buffalo Urban Development Corporation board in June 2011.

- Heritage Discovery Campus is in South Buffalo along the Buffalo River. It is a restored Buffalo Color (Allied Color) facility. This brownfield site cleanup was voluntarily funded by Honeywell Corporation.

- ***Bethlehem Steel*** in the city of Lackawanna is an ongoing initiative being addressed under the State's RCRA Corrective Action Program and the Brownfield Cleanup Program.

- ***Spaulding Fibre*** in Tonawanda is being cleaned up through the Environmental Restoration and State Superfund Programs. The site was subdivided into 7 operable units (OUs). Remediation of all OUs was completed and the site is being prepared for redevelopment.

The current remediation programs available in the County are addressing many contaminated sites. However, the list of classified sites is extensive and it is important that Erie County, local governments, and the private sector continue to collaborate with the NYSDEC to utilize these alternative clean-up programs. Erie County should:

- Ensure that ecological assessments and the entire clean-up process evaluate and mitigate any risk to sensitive species and habitats.

- Utilize the NYSDEC website to track and obtain environmental data on the status of contaminated sites found at the following link:
http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3.

- Continue to assist and support local municipalities and the private sector in participating in the state brownfield clean-up program and other voluntary clean-up programs, which convert contaminated sites into developable tax paying properties.

- Actively recommend and encourage New York State to reauthorize and restore funding for the State's Environmental Restoration Program Initiative which provides local governments the necessary seed money to promote brownfield clean-ups and the redevelopment of contaminated sites.

- The NYSDEC Brownfield Cleanup Program (BCP) is set to sunset in 2015. This means that clean-ups in this program must be completed by 2015 if tax incentives are to be obtained. The County should recommend and encourage New York State to keep the BCP current so developers will be encouraged to undertake brownfield clean-ups and redevelopment of contaminated sites.

- Facilitate and realize remediation of contaminated lands utilizing the BOA process. Doing so will help create jobs, improve surrounding property values, restore ecological habitats, provide public access to waterways, and enhance recreational opportunities.

- Implement green infrastructure techniques to remediate aging buildings, encourage redevelopment of brownfields, protect taxpayers from the burden of new infrastructure expenditures, protect the County's natural spaces, wetlands, farms, and forests, and spur economic growth.

- Erie County should market shovel-ready properties to companies out of state, and across the US-Canadian border, to encourage new development and business to move back into the County, and help decrease the trend of people being forced to leave Erie County to find jobs.

TRANSPORTATION

The Issue

In the past century, the extension and improvement of transportation networks have had the greatest impact on the development of US metropolitan areas.

While these developments have provided greater personal freedom, they have come with severe environmental consequences. Suburban growth, which is facilitated by the development of extensive transportation networks, continues to eat away at natural and agricultural land. Traditional walkable neighborhoods have been supplanted by sprawling edge-cities, which have increased automobile dependence, leading to higher concentrations of air pollution.

As a result of urban sprawl and the increased dependence on the automobile which has accompanied it, our environment has become increasingly exposed to greater levels of emissions from exhaust. These emissions pollute our air, cause health-damaging smog, and threaten the Earth's protective ozone layer. Such developments are not environmentally sustainable in the long run, and action is needed to slow sprawl and lessen our dependence on the automobile.

The Indicators

To assess the degree to which Erie County has become dependent on its transportation network, we will utilize two indicators:

- 1980-2000 U.S. Census Traffic Analysis Zone Data for the Buffalo-Niagara Falls MSA (Metropolitan Statistical Area)
- Texas Transportation Institute Urban Area Report 1982-2009

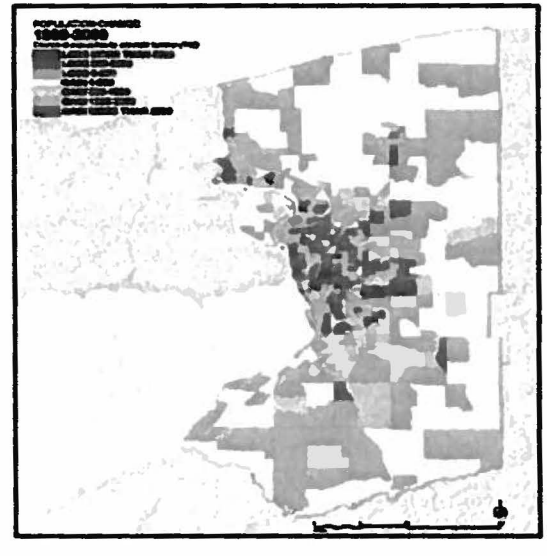
A **Traffic Analysis Zone (TAZ)** is a unit of geography most commonly used in transportation planning models. These zones are constructed from census block information, and are useful tools in displaying socio-economic data relevant to transportation or related fields. Such data includes automobiles per household, household income, and population density within each zone.

Every year the Texas Transportation Institute (TTI) publishes their annual **Urban Area Report** for the major metropolitan areas in the nation. The report provides several performance measures that indicate transportation trends and evaluate the severity of roadway congestion between the years of analysis.

The Assessment

The following **Traffic Analysis Zone Map** indicates the change in population by Traffic Analysis Zone within the Buffalo-Niagara Falls MSA between 1980 and 2000. Darker shades of brown indicate zones with the greatest population decline, while darker shades of green indicate zones with the greatest population growth.

From the map it is evident that the greatest population decline was experienced in the



area's urban centers like Buffalo, Lackawanna and Tonawanda. At the same time, it is evident that the greatest population growth was experienced in the outer-ring suburbs that surround these urban centers. These findings suggest a gradual population shift over the period from the central cities and the inner-ring suburbs farther out into the area's outer-ring suburbs.

The following chart lists relevant 1982 and 2010 performance measures from the TTI Urban Area Report related to travel and congestion trends within the Buffalo-Niagara Falls MSA.

Buffalo-Niagara MSA Urban Area Report 1982-2010			
	1982	2010	% Change
Annual Delay per Commuter (hrs)	4	17	325.0%
Daily Vehicle-Miles of Travel (1000s)	8,610	15,651	81.8%
Annual Public Transit Passenger Miles (millions)	105.5	87.9	-16.7%

Despite the increase in commuter hours stuck in traffic, the Buffalo-Niagara region still has one of the lowest commute times in the nation. The region is 4 minutes above the national average, with a commute time of only 21 minutes, as compared to 30 minutes for the rest of NYS.

The Recommendation

The aforementioned TTI Urban Area Report findings, in unison with population trends that developed between 1980 and 2000, show a clear correlation between the development of new population centers in the County's outer-ring suburbs and an increased dependency on the automobile to connect these centers with places of work in the central cities.

As a result of the shift of people away from the central cities and the increased dependency on the automobile that has accompanied this shift, roadway congestion has risen while public transportation usage has declined. Automobile exhaust and land consumed by sprawling communities continues to put great strain on Erie County's environment.

The key to reducing pollution generated by automobiles is to encourage people to walk, bike, carpool, and take public transit more often so as to encourage a healthier living environment.

The New York State Energy Research and Development Authority (NYSERDA) has provided the five counties that make up the Western New York Region a grant to develop a Regional Sustainability Plan. The objective of this plan is to work with public and private stakeholders throughout the region to identify strategies and projects that will support the reduction of greenhouse emissions by 80% by the year 2050. Transportation is one of the major focuses of the planning effort, and provides the opportunity to develop partnerships and initiatives to promote and support less polluting transportation modes.

The Sustainable Planning process is an opportunity to build upon the efforts of existing organizations in Erie County to reduce single occupancy commutes, encourage more fuel efficient vehicle use and reduce the regional green house gas emissions associated with transportation. Good Going WNY matches carpoolers with similar origins and destinations. Also, Buffalo Car Share provides smart cars and other fuel efficient vehicles to members by the hour, with vehicle hubs located throughout Buffalo.

It is also important for the County to continue to invest in public transit and support dense, mixed-use, walkable communities. The long-range goals of the Greater Buffalo Niagara Regional Transportation Council (GBNRTC) advocate using transportation services to promote higher density urban redevelopment and infill development in existing neighborhoods. The County should continue to work closely with the GBNRTC.

Finally, given the opportunity, many Americans would like to walk or bike more. However, many streets fail to accommodate safe passage for all travelers: bikers, pedestrians, drivers, transit users, the elderly, children, and people with disabilities. Go Bike Buffalo's Complete Streets Program works to ensure that when a roadway in Buffalo is constructed or repaired, equal consideration is given to commuters of all kinds, including pedestrians and bicyclists. The County should actively seek funding to construct planned bicycle/pedestrian paths to provide safe travel options by foot, bike, and public transit.

ECOSYSTEM HEALTH

The Issue

Invasive species are a major threat to the health and vitality of our ecosystems. They can be defined as non-native (or alien) species to the ecosystem and whose introduction causes, or is likely to cause, economic and/or environmental harm to that ecosystem. These can be plants, animals, or other organisms that compete or displace native species and the ecological values they provide.

Two invasive species causing concern in Western New York are the emerald ash borer and the giant hogweed. The emerald ash borer (EAB), (*Agrilus planipennis*) an asian beetle that has the potential to infect and kill all North American ash tree species in the genus *fraxinus*, including green, white, black, and blue ash. Trees that become infected typically die within 2 to 4 years and create "hazard tree" liability to public and private landowners. To date, nearly 50 million ash trees in the U.S. have fallen victim to this invasive species since its discovery in Michigan in 2002.

Initial EAB infestations have been primarily located in Michigan and Ohio. As of 2012, the insect is quickly spreading around the Great Lake States and Canada. It has been found in 3 counties in Western New York, including Erie County.

Giant hogweed (*Heracleum mantegazzianum*) is a federally listed noxious weed. Its sap, in combination with moisture and sunlight, can cause severe skin and eye irritation, painful blistering, permanent scarring and blindness. Contact between the skin and the sap of this plant occurs either through brushing against the bristles on the stem or breaking the stem or leaves.

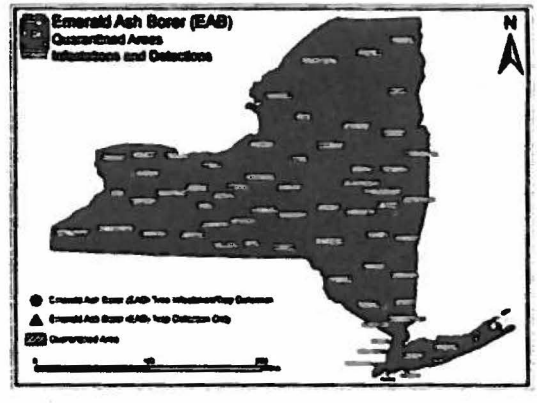
Other invasive species, such as Japanese knotweed (*Polygonum cuspidatum*), the common reed (*Phragmites australis*), purple loosestrife (*Lythrum salicaria*), and common mugwort (*Artemisia vulgaris*), do not have the same severe impacts or health risks as the emerald ash borer and giant hogweed. However, these highly invasive plants continue to take over our river and stream corridors squeezing out natural plant species, which provide valuable bird and animal habitats. These invasive plant species are not only a growing problem in Western New York, but throughout the Great Lakes Basin.

The Indicators

Two indicators to assess the risk of infestation from the EAB in Erie County will be used:

- 2010 New York State Ash Distribution
- 2010 New York State Emerald Ash Borer Infested and Quarantined Counties List

Both resources are provided by the New York State Department of Environmental Conservation (NYSDEC) and can be used to identify the threat of EAB infestation.



The Assessment

To date, emerald ash borer discoveries in Western New York have been on the rise. The above map depicts the current distribution of ash trees across New York State. 1.3 billion ash trees account for 7-8% of New York State's forest. Based on the above map provided by the NYSDEC, the highest concentrations of ash trees are found in Western New York, specifically in Erie County, Niagara County and across the Lake Ontario plain. The NYSDEC has identified all EAB infested counties in New York State to contain the spread. Identified EAB high risk counties have been quarantined to restrict the movement of firewood to uninfested areas.

The first infestation of EAB in Erie County was reported in Buffalo's South Park in June 2011,

where at least a dozen trees were identified. Other infestations were confirmed in the Lancaster area in August 2011 and West Seneca in the spring of 2012.

The NYSDEC has established a giant hogweed hotline and set up regional giant hogweed response teams to eradicate plants as they are identified. Giant hogweed has been found in Western New York for over ten years. Most recently it was been identified within the Buffalo River corridor at the Seneca Bluffs Natural Habitat Park. Erie County and the Buffalo Niagara Riverkeeper, along with several other private and public partners, have implemented invasive species management plans at sites along the Buffalo River to eradicate invasive species such as japanese knotweed, phragmites, purple loosestrife, and common mugwort; and restore natural habitat. The US Army Corps of Engineers has approved $500,000 in federal funding to conduct a Great Lakes Pilot Invasive Species Eradication Project to test a variety of both chemical and mechanical techniques for addressing these species at the Times Beach Nature Preserve.

The Recommendation

The NYSDEC Region 9 Office, in partnership with other government officials and private and public tree experts, have established a Western New York EAB Task Force to proactively discuss strategies to prepare local communities to slow the spread of EAB and identify action steps if and when an outbreak is identified in their community. Given the destructive nature of EAB to our urban and rural forests, eliminating infected trees and containing the infestation is critical to preserving the County's forest resources and the ecological services they provide. Educating local officials and the public is an important aspect of the Task Force's proactive strategy. The ECEMC can assist in this education effort.

EAB has primarily spread though the transportation of untreated lumber products and firewood from an area of infestation to an uninfected area. Once in the new region, the beetles spread, contaminating the area. New York State has adopted regulations that ban untreated firewood from entering the state and restricts intrastate movement of untreated firewood to no more than a 50-mile radius from its source. Federal and New York State agencies should enforce this regulation across Erie County and New York State borders to prevent the further spread of EAB. Efforts to restrict the spread of the Emerald Ash Borer through the transportation of firewood should continue.

It is recommended that anyone who spots what they suspect to be giant hogweed avoid all contact between the plant and their skin and clothing. They should take pictures if possible and contact the NYSDEC hotline (845-256-3111) ASAP.

Erie County and the ECEMC need to support efforts to identify and prioritize habitat negatively impacted by invasive plant species. In addition, support should be given to initiatives to secure grant resources to eradicate invasive species and replace them with native plants that provide habitat and food sources for birds and other native wildlife.

ENERGY USE

The Issue

Reliable, affordable and environmentally responsible energy use is key to the County's economic growth and quality of life; increasing energy efficiency and encouraging renewable energy in Erie County will cut costs, while mitigating the effects of climate change.

Electricity costs account for over half of total energy spending in most local governments in New York and at 18.31 cents per kilowatt hour, New York State has the third highest average electric rate in the nation (Source: New York State Comptroller's Office and United States Energy Information Administration).

Numerous federal and state policies and incentives focus on reducing energy usage in the residential, commercial and industrial sectors. New York State is also part of the Regional Greenhouse Gas Initiative (RGGI), an initiative of the Northeastern and Mid-Atlantic States, and the first market-based regulatory program in the United States to reduce greenhouse gas emissions. RGGI funds are spent on programs to promote energy efficiency and electric generation technologies that do not emit greenhouse gases or significantly reduce emissions of greenhouse gases.

Similarly, the New York State Public Service Commission for the System Benefit Charge, the Energy Efficiency Portfolio Standard and the Renewable Portfolio Standard require electric utilities to collect funds from customers through a surcharge on electric bills. These funds are transferred to the New York State Energy Research and Development Authority (NYSERDA) to be spent primarily on energy efficiency programs, development of renewable electric generation, and research (Source: New York State Comptroller's Office).

New York State's total RGGI revenue for SFY 2010-11 was over $266 million – more than double the projected amount. $240 million of the RGGI proceeds went to consumer benefit programs that reduce greenhouse gas emissions, while promoting energy efficiency and renewable energy. These investments save consumers money, create jobs, reduce the flow of dollars outside the state for imported fossil fuels and protect public health and the environment. For instance, $12 million supported the installation of 383 solar photovoltaic systems (3,710 kW), with anticipated production of 4,370 MWh per year. $4.6 million was dedicated to 17 companies to develop and commercialize new transportation technologies to reduce greenhouse gas emissions and save fuel (Source: Regional Greenhouse Gas Initiative).

Furthermore, the NYSERDA programs for Wastewater Efficiency and Combined Heat and Power were recognized in the top five energy efficiency programs in the nation in 2010. These programs will result in significant energy and cost savings for the state that will improve the state's economic competitiveness (Source: NYSERDA).

The Indicators

- Average annual natural gas usage (thousands of cubic feet of natural gas/account)
- Average annual electricity consumption in kilowatt hours (kWh)

Change in annual natural gas usage data was obtained from the National Fuel Gas Distribution Corporation for this report. Gas usage was determined from the average account data of the "New York Division" of National Fuel, an area including Erie County and other parts of Western New York. Change in average annual electricity consumption was determined by data from National Grid.

The Assessment

Average annual natural gas usage in and around Erie County declined from 2000 to 2010 in the residential, commercial and industrial sectors. Residential average annual usage declined 15 percent (17.7 mcf/account) from 118.2 in June 2000 to 100.5 in June 2010. Over the same time, commercial and industrial usage declined by 12 and 35 percent, respectively. In the past year (comparing March 2010 to March 2011), residential and commercial usage have continued to decline - by 0.4 percent and 1 percent respectively. However, industrial natural gas usage grew by 8 percent between March 2010 and

March 2011. More efficient technology, smarter natural gas usage and reduction in the usage of natural gas will have a positive impact on the state of the County's environment and economy.

Average annual kilowatt hour usage varies by sector. In and around Erie County, residential customer electricity usage rose from 7,219 kWh to 7,759 kWh (7.5 percent) between 2000 and 2009. Residential electricity usage has continued to rise in the past year; in 2010, the average annual usage per residential customer was 7,815 kWh – almost a one percent increase in just one year. Commercial and industrial usage declined by 6.9 and 30.3 percent respectively between 2000 and 2009. New data from 2010 shows that commercial usage has dropped by another 0.5 percent in the past year. However, industry usage has again increased by 4.0 percent from 2009 to 2010.

ANNUAL KWH

Year	Residential	Commercial	Industrial
2000	7,219	82,732	7,407,526
2001	7,228	78,119	7,238,382
2002	7,393	79,862	6,144,891
2003	7,602	76,463	6,061,350
2004	7,715	78,613	6,259,313
2005	7,876	79,381	6,025,131
2006	7,819	78,977	5,677,647
2007	7,818	78,791	5,730,711
2008	7,756	78,365	5,706,633
2009	7,759	76,945	5,162,569
2010	7,815	76,535	5,369,600

(Source: National Grid)

The Recommendation

Stimulating sustainable economic growth, technological innovation, and job growth in the County's energy and transportation sectors through competitive market development and government support should continue to be a key Erie County initiative. Gains in resource efficiency, particularly in energy usage, can positively affect the County's economic growth and environmental quality.

Increasing the diversity in energy resources in all sectors of the County through energy efficient technologies and alternative energy resources, including renewable-based energy, would provide for a more stable and sustainable economy. Erie County is an ideal location for the implementation of wind power, as already demonstrated by Steel Winds in Lackawanna, NY. The development of policies supporting wind power will greatly benefit the County's environment and economy in the long run.

Erie County is uniquely positioned to coordinate regional efforts to conserve energy and promote renewable energy use among the residents, towns/villages and businesses within the County. Development of a strategic, comprehensive plan to save energy and reduce greenhouse gas emissions throughout Erie County will result in cost reductions and environmental benefits in the near and long term.

The EMC supports Erie County's efforts to achieve the aforementioned goals by working on a Regional Sustainability Plan through NYSERDA's Greener Cleaner Communities Program. This planning effort with 5 counties (Allegany, Cattaraugus, Chautauqua, Erie and Niagara) parallels New York State's Regional Economic Development Council's Strategy for Prosperity by examining ways to reduce greenhouse gases. The priorities and projects identified through this process will have an opportunity to compete for $90 Million in NYSERDA funding. These projects could be internal County operations or community-wide. The EMC recommends that, among other projects, Erie County should pursue funding for an internal Green Team to identify and implement policies and practices within County government that will reduce greenhouse gas emissions, as well as reduce costs.

In addition, increased communication between the government and community is a necessary factor in decreasing energy consumption in the residential sector. By providing accessible information on current rates of energy consumption, along with realistic suggestions to encourage energy management and conservation practices, we can achieve critical decreases in usage per household. Erie County has followed up on a previous State of the Environment recommendation and now offers a website with a comprehensive list of links to all available energy saving incentives at http://www.renewerieCounty.org/

TOXIC EMISSIONS

The Issue

Toxic emissions, or the introduction of contaminants into the natural environment, pose a major threat to our County's water, air and land resources. They have been shown to cause instability, disorder, harm and discomfort to all physical systems and living organisms impacted by their release. Given their potential for irreversible environmental damage, it is imperative to address community concerns regarding toxic emissions and their sources.

In Erie County, most toxins originate from human-made sources, including:

- Mobile Sources (cars, trucks, buses)
- Stationary/Point Sources (factories, refineries, power plants)
- Indoor Sources (building materials, cleaning solvents)
- Non-Point Sources (stormwater runoff)

The responsibility of regulating chemical releases and their storage is shared between federal and state governments. On both levels, the United States Environmental Protection Agency (USEPA) and the New York State Department of Environmental Conservation (NYSDEC) monitor toxic releases and facilities responsible for those emissions. These agencies also use public education on how to manage polluting facilities through recycling, energy recovery and toxic material treatment.

It is an unfortunate reality that our environment is exposed to hundreds of toxic pollutants that are emitted from thousands of individual sources on a daily basis. Finding and eliminating them all will be impractical. Therefore, in order to reduce toxic emissions, we must properly identify, monitor, and regulate the most prevalent pollutants and their sources.

The Indicators

To assess toxic emission levels across Erie County, we will utilize two indicators:

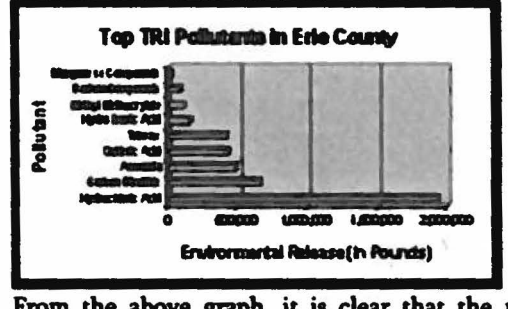
- The EPA Toxic Release Inventory (TRI)
- The EPA County Emissions Mapping System

The **Toxic Release Inventory (TRI)** is a publicly available EPA database that contains information on toxic chemical releases and waste management activities reported annually by certain industries, as well as federal facilities. The program requires polluters to fill out clear statements of toxins released, and makes the data available to the public.

The **County Emissions Mapping System** indicates the density of criteria air pollutant emissions of every County in a selected geographic area. Emission amounts come from the EPA's National Emission Inventory (NEI) database. Emission densities are calculated as emission amount per square mile of land within each County.

The Assessment

The following graph is a record of the main pollutants in Erie County taken from the **EPA Toxic Release Inventory**, updated in 2009. Each toxin listed impairs the health of the environment, as well as society.



From the above graph, it is clear that the most prevalent pollutant in Erie County is **Hydrochloric Acid (HCL)**, with emission amounts just over three times greater than the second highest pollutant, Carbon Disulfide.

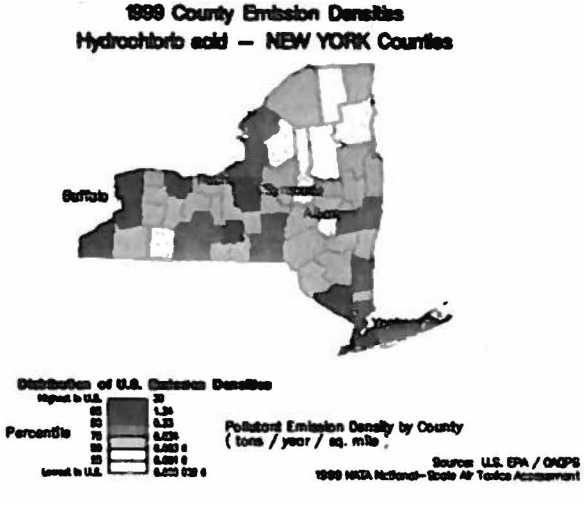
HCL is often used in the production of chlorides, fertilizers and dyes. It also has uses in the textile and rubber industries. It is emitted from the combustion of fuels, refuse incineration, smelting of metal scrap, and the decomposition of gases.

There are many dangers associated with high levels of HCL within the environment. Excessive

human exposure to HCL can cause eye, skin and respiratory irritation and inflammation.

Chronic exposure may lead to severe burns, ulcers and scarring. In the environment, HCL is readily incorporated into cloud, rain and fog water, thus forming a component of acid rain. It also is highly corrosive, contributing to the decay of limestone buildings and other surfaces such as bridges and roadways, as it dissolves as part of condensation.

The following County Emissions Map depicts HCL concentrations in each County across New York State. Darker colors indicate higher densities of HCL within the County, measured in tons per square mile, last calculated in 1999.



The above graph indicates that Erie County falls within the 90th percentile of U.S. HCL emission densities, suggesting that only 10% of U.S. counties have higher HCL densities per square mile than Erie County. Erie County ranks 3rd in total HCL emissions among counties in New York State and 81st among counties across the nation, as reported by the EPA.

The Recommendation

The Toxic Release Inventory not only provides our community an assessment of the toxins that are being released locally, but also identifies the sources from which these contaminants are emanating. This information provides local leaders the opportunity to reach out to the companies and organizations releasing these toxins into the environment to engage and support them in strategies to reduce these emissions.

Within Erie County, the EPA identified the Huntley Generating Station in Tonawanda as the top HCL emitting facility. This should not come as a surprise, given that 89% of all HCL emissions come from coal burning power plants across the nation.

The most effective method of HCL emission reduction within these plants has come from the installation of "scrubbers," which filter pollutants from gases as they are released from fossil fuel burning facilities.

Prior to July 2011, the EPA required 90%-95% efficiency in scrubbers that treat toxic emissions before they enter the environment. However, as of July 2011, the EPA has raised its requirements to 98% efficiency.

Procedures for HCL emission reduction and containment are highlighted in several Federal Regulatory Acts/Programs. Some are listed below with their classification for HCL in parentheses.

- Occupational and Safety Health Act (Air Contaminant)
- Superfund (Extremely Hazardous Substance)
- Clean Air Act (Hazardous Air Pollutant)
- Federal Insecticide, Fungicide, and Rodentcide Act (Registered Pesticide)

There is a role Erie County can play to help reduce the community's reliance on the products and services that contain or emit toxins during their manufacturing process. One step the County may take is to provide data and information to citizens so they have an opportunity to make choices that reduce toxins – whether it is through avoiding plastic (used in some containers and plastic wrap), using organic lawn services (as opposed to companies that use chemicals to protect lawns), or choosing low-VOC (volatile organic compound) or no-VOC paints. As a result, the new public demand for cleaner and greener products and services can push manufacturers and service providers in a direction which will reduce the overall emission of toxins in our community, especially hydrochloric acid.