



**SPRING  
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# **Green Infrastructure Recommendations for Western NY**



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# Foreword

The New York League of Conservation Voters Education Fund (NYLCVEF) is a 501(c)(3) nonprofit organization dedicated to educating New Yorkers on environmental issues and engaging them in civic life.

In October 2016, NYLCVEF convened a public policy forum at the Buffalo History Museum on green infrastructure, the use of nature-based systems to improve drinking source water quality and combat combined sewer overflows (CSOs) in urban areas. This forum was part of a series of similar events around the state on the subject of green infrastructure and CSOs.

NYLCVEF commissioned a background paper in July 2016 to examine local and regional green infrastructure projects and explore opportunities for the expanded use of green infrastructure. At the subsequent policy forum in October, environmental advocates and local officials discussed various ways the Buffalo-Niagara metropolitan region can maximize the power of green infrastructure to address CSOs, improve source water, and encourage sustainable development throughout the region.

We would like to acknowledge the organizations and officials whose invaluable feedback and contributions over the last six months helped NYLCVEF shape our recommendations: the Buffalo Sewer Authority, Buffalo Niagara Riverkeeper, Go Bike Buffalo, The Army Corps of Engineers, Wendel, PUSH Buffalo, the University at Buffalo Regional Institute and School of Architecture and Planning, and the Village of Williamsville, in addition to the generous sponsors of our program, Roux Associates, Union Concrete, and County Line Stone.

A copy of our recommendations will be sent to elected officials, agency heads, and other administrators throughout the region. We are grateful for their comments and look forward to working with all interested parties to make Western New York and the Buffalo-Niagara region greener, healthier, and more resilient for all.

Signed,  
Marcia Bystryn, President  
New York League of Conservation Voters Education Fund

# Introduction

The Buffalo-Niagara region is surrounded by one of the largest sources of freshwater on the planet: the Great Lakes. Unfortunately, , the Niagara and Buffalo rivers – which empty into Lake Erie and Lake Ontario, respectively – have suffered significant damage as the result of industrial pollutants, development, and other forms of source water pollution. Continued pollution from combined sewer overflows (CSOs) occurs when sewers push raw sewage and stormwater into local waterbodies, posing a significant challenge. In fact, of all the sanitary sewer overflows in New York State, six out of ten occur in Erie County.

Protecting drinking source water and urban waterways is critical to the future wellbeing of the Buffalo-Niagara metropolitan region. In addition to the many factors that adversely affect source water, wastewater treatment plants often divert excess stormwater directly into waterbodies as CSOs, impairing water quality and violating federal Clean Water Act requirements. Stormwater runoff is also problematic in the non-combined sewer portion of the region, known as Municipal Separate Storm Sewer Systems (MS4s), because the polluted runoff is discharged directly into local water bodies.

To address these issues, the Buffalo Sewer Authority finalized a \$380 million Long Term Control Plan (LTCP) in 2014, which included nearly \$100 million for green infrastructure in order to achieve compliance with the water quality standards of the Clean Water Act. Traditional approaches to stormwater runoff have relied on “gray” infrastructure – wastewater treatment facilities and holding tanks – that are both large and expensive. These green infrastructure investments from the LTCP have already improved water quality and generated additional environmental and economic benefits, and we believe that more can be done to prevent the pollution of urban waterways and protect and restore the region’s freshwater resources. Following these recommendations will ensure that the Buffalo-Niagara region seizes the significant opportunities presented by green infrastructure and that it protects its freshwater resources, both in and outside of urban areas, for generations to come.

## Preserve Existing Green Infrastructure

The first priority should be the preservation of existing green infrastructure such as wetlands, flood plains, stream and river corridors and forested watershed regions. These areas provide flood protection, reduce the impact of storms, alleviate CSOs, and broadly improve water quality. Further, the state should update its wetlands maps and consider amending regulations to allow for improved maintenance of these freshwater resources.

- Prioritize the preservation of existing natural areas and green infrastructure in Western New York and the Buffalo-Niagara metropolitan region.
- Update the New York State Regulatory Freshwater Wetlands maps to reflect changing boundaries and modern scientific assessments of the Buffalo-Niagara metropolitan region and the state's freshwater wetlands and other resources.

## Focus on Source Water: Approach Green Infrastructure as a Regional and Watershed-Scale Issue

CSOs and other polluting forces addressed by green infrastructure have been identified by the EPA as significant pollutants throughout the Great Lakes and in Lake Erie specifically. Although significant research has been done to evaluate the importance of green infrastructure in the Buffalo Sewer Authority (BSA)'s coverage area, local, regional and federal authorities would all benefit from greater collaboration on increasing green infrastructure across Western New York and throughout the local subwatersheds.

- Municipal and county governments should create partnerships to pursue grant funding at the watershed and subwatershed levels.
- Waterway remediation plans should take into consideration all water management and water quality goals and obligations including CERCLA (Superfund), the Clean Water Act, consent orders, and resiliency concerns from the effects of climate change.

## Identify and Integrate Best Practices

To ensure access to information from local residents and interested parties, New York State and local agencies should provide access to project databases and repositories, technical guidelines on green infrastructure installation best practices, and access to information about stormwater event reductions and water quality improvements. Increased access to information and broader dissemination of best practices will increase effectiveness of future green infrastructure practices in the region.

- Implement green infrastructure projects on waterfront edges as natural barriers and in flood-prone inland areas to mitigate rain-induced flooding, increase resiliency and improve public and ecosystem health.
- Fully evaluate opportunities for green infrastructure retrofits on both public and private property for each CSO plan.
- Develop and grow a green infrastructure maintenance workforce of municipal, private and nonprofit social enterprise workers.
- Identify and leverage funding for green infrastructure projects through coordinated efforts led by local mayors and county executives.
- Explore private property retrofit incentive programs such as the Stormwater Management Incentives Program (SMIP) and Greened Acre Retrofit Program (GARP) in Philadelphia, the Rainwise program in Seattle and the Riversmart Homes program in Washington, D.C. as well as Pay-for-Performance and Pay-for-Success contract models.
- Form partnerships with private firms, nonprofits and universities for research, development and piloting of new and innovative green approaches.



## Increase Opportunities for Community Engagement with Green Infrastructure

By increasing public awareness of the value of green infrastructure and opportunities for its inclusion in mainstream land use development planning, local governments can increase participation in green infrastructure programs by nonprofit organizations and local agencies. This will ultimately improve water quality compliance and help communities across the region move toward green infrastructure best practices.

- Explore programs that increase availability of public data on green infrastructure.
- Promote opportunities for project funding from local, state and federal sources.
- Facilitate opportunities for information transfer and sharing between local governments and community-based organizations.
- Ensure easy access to information among citizens through online databases and project repositories of Best Management Practices (BMPs) maintained for the entire watershed, technical guidelines on green infrastructure installation at private lot levels and access to real time information on stormwater quality and event reductions achieved at mini watershed levels.
- Disseminate information about BMPs for management and maintenance of community-based green infrastructure projects to local nonprofits and other stakeholders.



NYLCVEF held a public policy forum on green infrastructure in Western New York in October, 2016.

## Develop Additional Revenue Sources for Green Infrastructure and its Maintenance

Green infrastructure implemented by the BSA and the City of Buffalo have benefitted greatly from public-private partnerships and local philanthropic funding. In order to increase long-term funding for green infrastructure, municipal and county governments must look to develop additional sources of funding that push projects to develop multi-tier benefits and produce benefits towards diverse goals.

- Pursue additional funding opportunities for projects through the Clean Water State Revolving Funds (CWSRF) administered by the NYS Environmental Facilities Corporation (EFC) under the Green Innovation Grant Program (GIGP).
- Executive offices at the municipal and county levels should lead a coordinated effort between agencies to drive collaboration, set interagency stormwater targets and report back on the milestones across agencies.
- Reexamine stormwater fee-based programs to encourage property owners to convert a certain percentage of their property to green infrastructure.
- Identify targeted communities in the Buffalo-Niagara region that are eligible for state resiliency funding and can benefit from green infrastructure as part of their long-term resiliency planning efforts.
- Prioritize effective private partners to pilot green infrastructure in housing, industrial areas, parking lots and roofs.
- Explore private-public partnership for green infrastructure maintenance, including leveraging job training programs across the city to build opportunities for operations and maintenance trainees and workers to transition to higher skilled, full-time occupations beyond stewardship and “green jobs” training programs.





The New York League of Conservation Voters Education Fund educates, engages, and empowers New Yorkers to be effective advocates on behalf of the environment -- from clean energy and funding for parks, to solid waste and green buildings.

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