

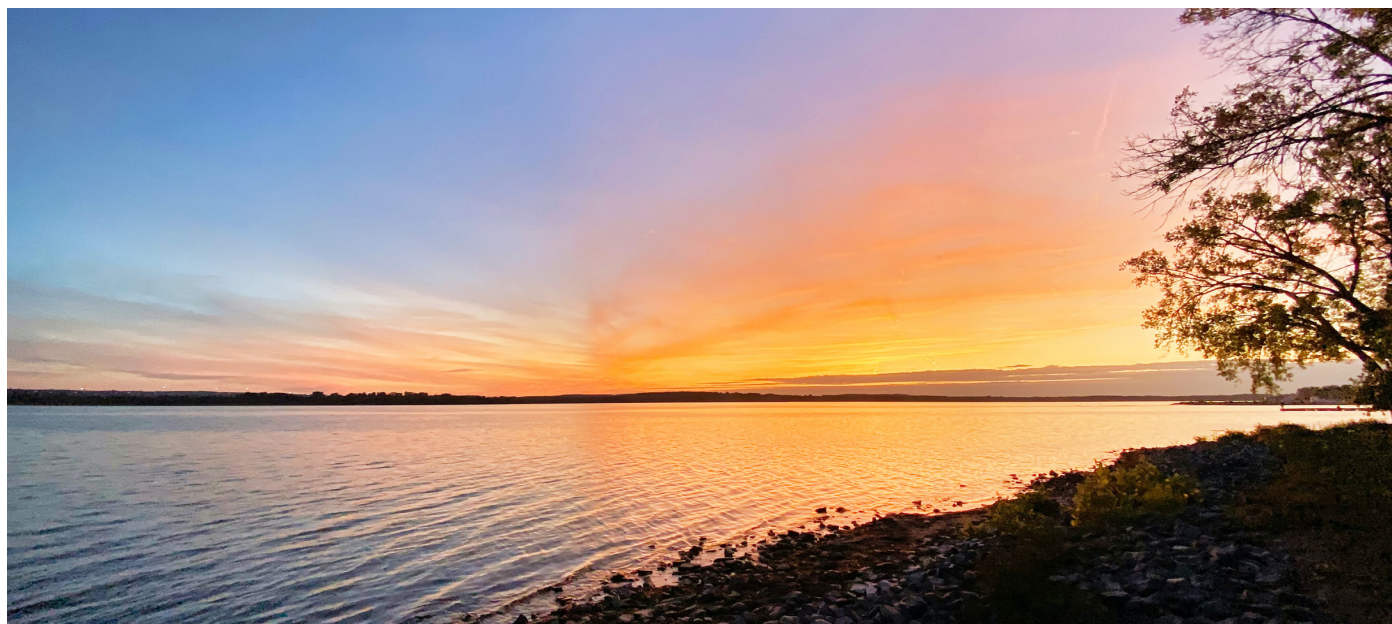
ATLANTIC STATES LEGAL FOUNDATION

SUMMER 2020 NEWSLETTER

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ONONDAGA LAKE ENTERING A NEW ERA



Onondaga County was a major polluter of Onondaga Lake. In 1988, ASLF filed a lawsuit under Sections 505 of the Clean Water Act, alleging that the County violated this act by releasing insufficiently treated sewage into the lake and by discharging untreated combined sewer overflows (CSO) into its tributaries. The lake was essentially

a dead body of water with major algal blooms and other noxious smelly conditions. There was also severe contamination from century-long direct discharges from industrial facilities located along the lake and indirectly via the sewage treatment plant. In 1989 ASLF and New York State signed a settlement agreement with Onondaga County that

formed a legally based prescription for alleviating the County's violations and getting the lake back. Now over thirty years and some \$700,000,000 later, Onondaga Lake has been transformed, and much improvement has been noted, including the idea of a swimming beach on the lakeshore.

In getting to the present, there has been an enormous effort with hours and hours spent on meetings and negotiations, regulatory studies, data analysis, engineering design, technical reviews, and so forth together with major revisions to the legal actions. When the first Amended Consent Judgment (ACJ) was entered in 1998, the parties recognized that the scientific and engineering criteria set forth in the ACJ might need to be updated as the cleanup progress and scientific knowledge and technology advance over time. This allowed the parties to revisit the ACJ and further amend it with its first stipulation later in the year, and subsequent stipulations in 2006, 2008 and 2009. It was the fourth stipulation to the ACJ that put this case and Onondaga County's CSO abatement program at the forefront of the nation: it is the first consent order that mandates the use of green infrastructure (rain gardens, green roofs, tree plantings, porous pavement, rain barrels, etc.) as complementary technologies to manage CSOs. ASLF played a vital role spearheading the campaign for the inclusion of green infrastructure. The new leadership in both Onondaga County and DEC provided critical support that finally led to the successful transition in 2009. Since then, ASLF has become a partner of the County in the development of its signature "Save The Rain" CSO management program, which has successfully completed over 220 green infrastructure projects in the past ten years. Along with its gray infrastructure projects, such as the multi-million gallon Clinton and Harbor Brook storage facilities, sewer separations at multiple locations and upgrades to the conveyance system, Save The Rain has accomplished 97.7% system-wide CSO capture. This accomplishment exceeds the 95% capture rate required by the ACJ and is

way above the 85% recommended in the EPA's CSO Control Policy based on the "Presumption Approach."

As the term indicates, the Presumption Approach required by the Clean Water Act presumes that Water Quality Standards (WQS) should be met if a CSO control program captures no less than 85% of the total CSOs by volume. This is opposed to the "Demonstration Approach", which calls for a program to demonstrate that its CSO control measures result in successful compliance with the WQS. Unfortunately, after eliminating an astonishing 97.7% of CSO discharges, the water quality of both Onondaga Creek and Harbor Brook still fails to meet the wet weather WQS for fecal coliform bacteria counts and turbidity downstream of the CSO outfalls.

Unsurprisingly, fecal coliform levels often spike when the sewage is discharged into a stream. In wet weather, the remaining CSOs are likely to carry some sewage and therefore be partly responsible for downstream fecal coliform levels. However, based on the sampling results, the creeks already have elevated fecal coliform levels upstream of the CSOs, sometimes even in violation of WQS in dry weather. Although the sources of the additional pollution have not been fully identified, it is very clear that solely relying on CSO reduction will not bring fecal coliform into compliance. The ACJ requires the County to (1) reduce CSO volume by 95% by the end of 2018, and (2) ensure remaining CSOs do not cause or contribute to conditions in violation of WQS in the receiving water bodies. While DEC has recently approved the County's 97.7% capture rate, the second goal is apparently unattainable under the ACJ. Considering the conditions of the two tributaries, both of which are channelized (with a large section of Harbor Brook being covered) running across the City with very limited access, the designated best uses of both waterways for activities such as canoeing and fishing are largely unrealistic.

Nevertheless, the ACJ has to come to an end¹. While remaining at the table negotiating for a judicious closure, ASLF also sees the necessity of informing the public of this situation and letting the community help define the way forward. ASLF has come to an agreement with Onondaga County to work jointly on a public engagement process, seeking public input for a sensible and practical solution to the problem.

Required by the ACJ, the County needs to develop and implement a Long Term Control Plan (LTCP) to ensure that the remaining CSO discharges “do not cause or contribute to conditions in violation of WQS or impair the designated best uses of the receiving waters.” The EPA CSO Control policy requires the active involvement of the affected public in the LTCP development process. ASLF and the County representatives will soon announce a series of public participation opportunities, allowing

communities in the combined sewer serviced areas, those affected by the CSOs and other interested groups, to provide comments on the LTCP. The goal is to develop and implement a technically sound, environmentally beneficial, and financially viable plan for the coming decades. Although the details need to be worked out, this process will involve public meetings, technical sessions with specific groups, web site and social media updates, pamphlets and hand-outs, door to door contacts, and other innovative approaches to bring closure to this activity.

If you are interested, please pay careful attention to announcements from Onondaga County and ASLF. All related information will be made available on the ASLF website and www.onondagalake.org.

¹Formally the ACJ has not yet been terminated, but this is expected occur upon completion of the next steps by DEC and the County

AGROFORESTRY

WHAT IS IT, AND HOW CAN IT BUILD COMMUNITY RESILIENCE?

Agroforestry will be an important part of a resilient and sustainable future. But what exactly is it? It can be defined as the integrative, intentional, intensive, and interactive (we call these the “four Is”) practice of growing trees and other woody plants with herbaceous crops, and sometimes livestock. Most conventional agriculture relies on a monoculture of just one crop, whereas an agroforestry system must have at least two outputs. The main concept of agroforestry design is that it tries to mimic more closely the structure and function of natural ecosystems.

Practically, agroforestry takes form through at least one of six practices:

1. **Alley cropping** is the planting of rows of

trees and/or shrubs to create alleys within which agricultural or horticultural crops are produced. The trees may include valuable hardwood veneer or lumber species; fruit, nut or other specialty crop trees/shrubs; or desirable softwood species for wood fiber production.

2. **Forest farming** is the cultivation of high-value crops under the protection of a managed tree canopy. In some parts of the world, this is called multi-story cropping. When used on a small scale in the tropics, it is sometimes called home gardening. In temperate North America, examples of forest farming products include ginseng, mushrooms, goldenseal, and dried ornamentals.

3. **Riparian forest buffers** are areas adjacent



to a stream, lake, or wetland that contain a combination of trees, shrubs, and/or other perennial plants managed differently from the surrounding landscape, primarily to provide conservation benefits. Riparian buffers can also be managed to include trees and shrubs that produce a harvestable crop along with the conservation benefits, although this is less common. Buffers are used in agricultural, row crop, range, suburban, and urban settings. A wide variety of state and federal programs support the installation of riparian forest buffers on public and private lands.

4. **Windbreaks** are linear plantings of trees and shrubs designed to provide economic, environmental and community benefits. The primary purpose of most windbreaks is to reduce wind speed, which creates a more beneficial condition for soils, crops, livestock, wildlife, and people. Windbreaks, sometimes called shelterbelts, can also function in ways not related to wind speed reduction. Non-wind related purposes include visual screens, wildlife habitat, vegetative field borders, and as another crop source.

5. **Silvopasture** is the deliberate integration of trees and grazing livestock operations on the same land. These systems are intensively managed for both forest products and forage, providing both short- and long-term income sources.

6. **Food Forest**, also called a forest garden, is a diverse planting of edible plants that attempts to mimic the ecosystems and patterns found in nature.

Food forests are three-dimensional designs, with life-extending in all directions – up, down, and out. This practice is particularly suitable for urban areas.

The resilience benefits of agroforestry are many and provide ecosystem services and diversified food resources that are generally lacking in conventional monoculture systems. Additionally, agroforests have higher habitat value and are less detrimental to soil and water quality.

ASLF is developing a program for promoting agroforestry, particularly as a tool for protecting water resources. The three practices that are on our agenda from a programmatic and design perspective are urban food forests, riparian buffers, and forest farming. We have, in fact, already installed a prototype urban food forest planted on a vacant lot at 701 Oswego St., Syracuse. This landscape – originating from the Save the Rain program - provides fresh peaches, apples, and raspberries to the surrounding neighborhood, and is very productive. We are hoping to design and facilitate the planting of more food forests around Syracuse. Outside the City, we are looking to work with Soil and Water Conservation Districts, municipalities, community groups, and farmers to promote the installation of fruit and nut producing riparian buffers to protect water quality in creeks and rivers. Agroforestry has a promising future and a crucial role to play in our region and beyond. Please check our website and social media regularly to stay up to date on the development of this exciting program!

FORESTRY FOR A FUTURE

ASLF URBAN FORESTRY PROGRAM

The ASLF Urban Forestry Program has been active for about ten years. We have planted over 1000 trees in Onondaga and Oswego counties, funded primarily through the Great Lakes Restoration Initiative. Forestry is an essential part of our program, and we feel trees and forests must be included in community infrastructure planning decisions. The benefits of trees and green spaces in cities are numerous. They include positive effects on stormwater runoff, urban heat islands, food security, neighborhood development, social health, and even chronic health conditions.

The City of Syracuse has an ambitious goal: plant 3500 trees per year for the next 20 years, in an effort to restore City canopy cover. This comes from the recent development of the Urban Forest Master Plan, emphasizing tree equitability, with efforts focusing on the most canopy-sparse areas, which typically are also the most impoverished. There is a call for coalition-building, with various local actors collaborating to achieve this important community goal. ASLF is proud to be participating in this effort, and we will be working with the City and others to rebuild our urban forest.

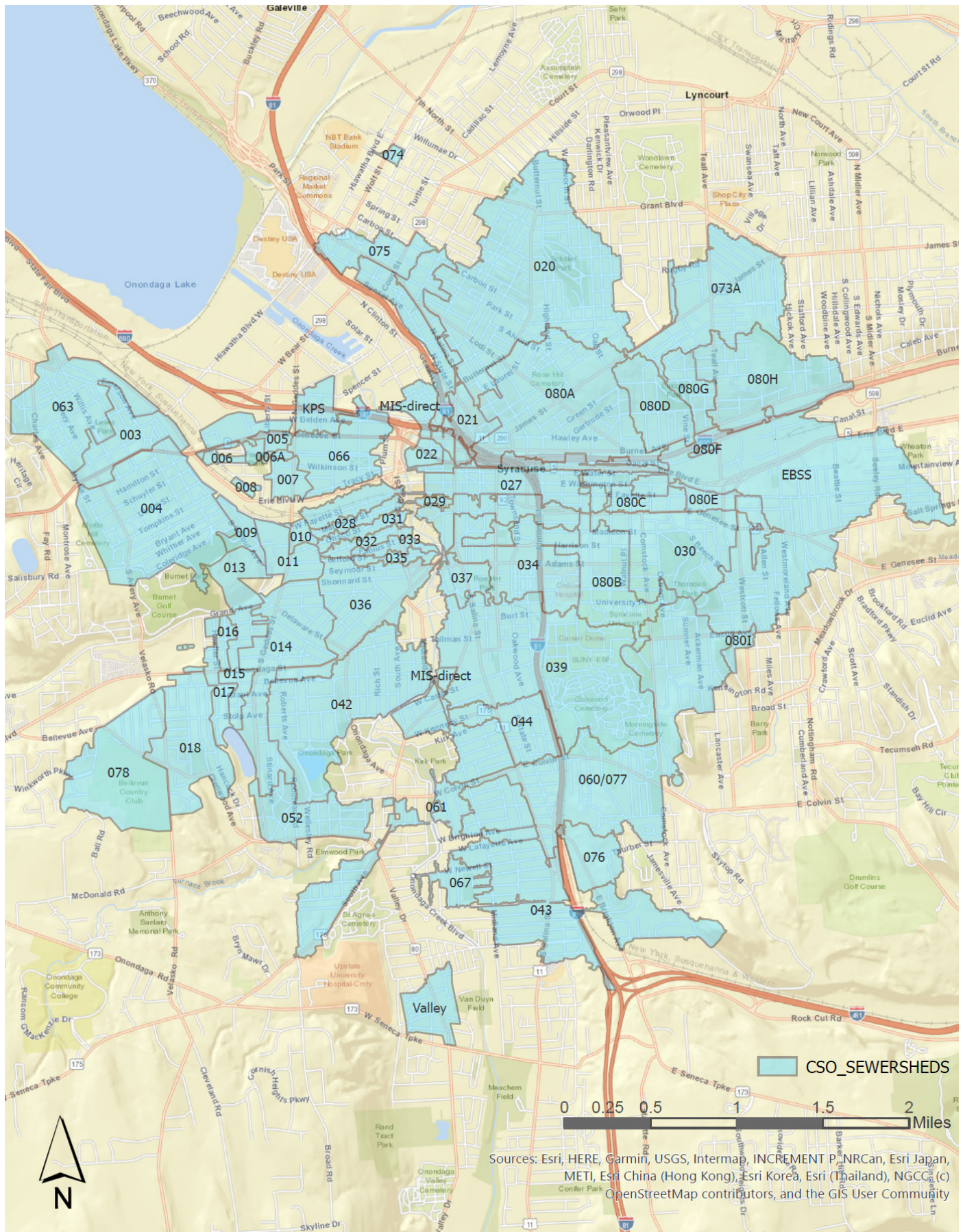
ASLF CONTINUES WORK WITH COMMUNITIES IN WAYNE COUNTY, NY



ASLF has been collaborating with community members in and around the Village of Wolcott, NY, and working in direct partnership with the Village over the past year on a special initiative. Our project is funded by an NYS Sea Grant and is called the “Community-driven Restoration of the Wolcott Creek Watershed.” The ultimate goal is to assist the

community in enhancing, restoring, and protecting nearby water resources such as Wolcott Creek, Mill Pond, and Lake Ontario. In 2019 we held two workshops in Wolcott soliciting community input on goals and priorities regarding the use of water resources in the watershed. In 2020, we will hold a third and final workshop to wrap up the project and provide a plan going forward. We will help strategize on how to access resources such as grants that could be used to achieve community goals.

In addition, ASLF has been working with concerned community members fighting a proposed sewage-sludge treatment facility in Butler, NY (also in Wayne County). Specifically, we have been providing guidance on strategy and helping to secure resources. The proposed facility is located very close to Wolcott Creek and a spring that is one of the drinking water sources for the Village of Wolcott.



ASLF seeks GI projects in Combined Sewer Areas marked in blue

ASLF TO CAPTURE ONE MILLION GALLONS OF STORMWATER USING GREEN INFRASTRUCTURE

ASLF is to use green infrastructure (GI) to capture one million gallons of stormwater runoff from Syracuse streets, sidewalks, parking lots, driveways, rooftops, or other impervious surfaces. This will reduce the stormwater volume that enters the combined sewer system in the City, potentially reducing combined sewer overflows (CSO) events.

GI practices rely on soil, plants, and natural processes such as infiltration, evaporation, and transpiration to mimic the natural water cycle and manage stormwater runoff. Rain gardens, green roofs, tree plantings/trenches, and permeable pavements are common examples of GI practices. ASLF has been actively advocating the use of GI in urban stormwater management, and we have installed demonstration green roofs and a porous pave parking lot at our office. We have been involved in the development of many of the 220+ GI projects constructed by Onondaga County in the past ten years, and we installed our own rain gardens on four vacant lots in the Skunk City neighborhood last year. These GI projects contribute to the 97.7% CSO reduction volume achieved by Onondaga County.

GI captures stormwater before it enters the catch basins connected to the combined sewer system. Widespread application of GI can dramatically reduce overflow events, as well as reduce loads on the wastewater system. Additionally, GI projects have the potential to provide urban habitat,

beautify neighborhoods, increase nearby property value, reduce mental stress, and help address many environmental, social, and economic issues associated with urbanization. Furthermore, with proper design and planning, GI may allow for some food production on otherwise unused land.

ASLF continues the effort to promote the use of GI practices in Syracuse communities. We work in collaboration with Onondaga County, looking for additional partners in the combined sewer serviced areas to develop additional GI projects. Within the next five years, our goal is to take at least one million gallons of stormwater out of the combined sewer system. We look forward to working with partners in both the public and private sectors to design and construct GI projects. With stormwater capture as the primary goal, these projects will be developed with the consideration of the owner's interests and needs. Still, they all have to demonstrate the provision of clear community benefits.

Potential project sites may have large impervious surfaces, such as a parking lot, driveway, or rooftop, or adjoin such impervious areas. Sites that allow public access or that are highly visible from the street are preferred. If you own or know of a site that could be a good fit, please contact ASLF at 315-475-1170 or send an email to Hongbin Gao at hgao@aslf.org.

TREE PLANTING IN OSWEGO COUNTY

From 2010 to 2017, ASLF planted over 1,300 trees in Central New York to manage stormwater

runoff and improve water quality in the Lake Ontario basin through the Great Lakes Restoration Initiative



(GLRI). Through partnerships with both public and private landowners, over 600 trees were planted in the City of Syracuse, and roughly the same number planted across nine degraded urban sites in the cities of Fulton and Oswego. In 2017, ASLF and the Oswego County Department of Community Development, Tourism & Planning (OCDCTP) continued to seek funding opportunities under GLRI, and received another grant, this time planting 300 trees in Oswego County. This new project is scheduled to be completed by Fall 2020.

There are numerous degraded urban sites in Oswego County, many of which likely contain some level of contaminants from their past uses. These sites often have a high percentage of impervious surfaces and allow stormwater to flow directly into Lake Ontario or its tributaries, posing a threat to the water quality of the Great Lakes. Like previous projects, the new project targets degraded urban sites. By strategically placing trees on these sites, the project will help capture stormwater runoff, thereby reducing nonpoint source pollution entering Lake Ontario. These trees will also help to increase urban canopy coverage, restore wildlife habitat, boost biodiversity in the urban ecosystem, improve

air quality, build local resilience to climate change, and improve visual quality.

ASLF took a community-driven approach to this project. We spent the first year of the grant period working closely with municipal agencies, community organizations, and private entities in the County to determine the best available sites for planting. We organized three public meetings to discuss the purpose of the project and to hear from local residents. Eventually, six sites in Fulton and one site in Oswego were selected for this project based on our analysis combined with community input. Among them, two sites are current brownfield reclamation projects: the Oswego Health's new behavioral health facility on the former Price Chopper site in Oswego, and the redevelopment of the former Nestle parking lot in Fulton. Our planting project helped significantly increase the number of trees planned for both sites, using exclusively native species. The rest are parklands in Fulton. In early 2020, we finalized planting plans after several rounds of feedback. The planting plans feature a selection of native trees suitable for the site conditions, with consideration of the community's preference of tree species and placement.



As of June 2020, all planning and design work has been finished for this project, and over 50% of the proposed trees have been planted. The rest of the planting is scheduled to be completed in the fall. Once established, trees planted under this project will help reduce surface runoff from approximately 30

acres of land that is hydrologically connected to the planting areas. ASLF maintains an interactive map (<https://arcg.is/0rKLTm>) containing information about the locations, species, and sizes of all the trees planted under our GLRI grants. This project will be added to the map as well once it is concluded.

ASLF COMPLETES GREEN INNOVATION GRANT PROGRAM WITH INSTALLATION OF FOUR RAIN GARDENS ON VACANT LOTS

In 2015, ASLF received funding from the Green Innovation Grant Program (GIGP) administered by the NYS Environmental Facilities Corporation to design and construct green infrastructure projects on vacant lots in the City of Syracuse. These green infrastructure projects not only reclaim some of the abandoned vacant properties in the City's urban core, but also provide opportunities for ecosystem services such as stormwater management, flood attenuation, wildlife habitat restoration, and carbon capture and

storage. The year 2019 marked the closure of our GIGP as we completed the construction of four rain gardens in West Side Skunk City neighborhood.

Each rain garden is populated by a variety of native plant species, creating habitat for desirable insects such as wild bees and butterflies. The selection of plants ensures visual interest at any given time throughout the growing season, adding a new level of vibrancy to the neighborhood's



streetscape. Plants will start blooming in spring and continue through fall. Leaves will present a wide range of colors and textures. Certain plants will bear berries that can persist through winter. The rain gardens utilize different configurations, layouts, and hydrological controls to demonstrate a diversity of design principles.

As beautiful as these gardens are, they are stormwater management workhorses capturing runoff that would otherwise enter the combined sewer system. Each rain garden features a 30-inch soil media layer and a 12-inch drainage layer, enabling it to handle polluted stormwater runoff from the street. Together these gardens will capture up to half a million gallons of stormwater runoff annually from nearby driveways, sidewalks, roofs, and roads.

ASLF has always played an important role in protecting water resources and improving water quality through our advocacy and other types of work, both regionally and nationally. This GIGP project has been a challenging but meaningful endeavor. The outcome was different than what was originally planned, but we take great pride in what we have achieved through this grant and are pleased to have these new unique installations in our communities. ASLF did not accomplish this

in isolation. Instead, we worked extensively with our municipal partners, other organizations, design professionals, academia, and the community. Without the support and feedback from the Environmental Facilities Corporation, City of Syracuse, Onondaga County, Syracuse Land Bank, Syracuse University, SUNY-ESF, Syracuse United Neighbors, Tomorrow's Neighborhoods Today, and others, this project would not have been possible.

Closure of the GIGP grant doesn't end ASLF's efforts to seek innovative approaches to continue improving these sites. We expect to use the remaining open areas of the sites for future urban forestry, food forests, community gardens, and urban greenspace projects. Stay tuned.

Meanwhile, we invite anyone interested in green infrastructure, native plants, or just gardening in general to visit our rain gardens in person. They are located at 124 Hoefler Street, 125 Hoefler Street, 305 Herriman Street, and 322 Cadwell Street in Syracuse. An interpretive sign can be found at the Herriman Street site for more project-specific information. If you have additional questions, you can contact us at 315-475-1170 or atlantic.states@aslf.org, or leave a comment on our Facebook page at <https://www.facebook.com/ASLF1982>.

CHANGES AT ASLF

Since our last newsletter, there have been many changes at Atlantic States Legal Foundation. Some highlights include a new Chair of the Board of Directors, Dr. Kevin Bliss, a longtime environmentalist and former state DEC employee. We have a new executive director as well. He is Lhakpa Tsering, who has a long history of working in the non-governmental sector. Lhakpa comes to us from Skokie, IL and resides now in Syracuse. Finally, we would be totally remiss in not mentioning the passing of our long time attorney, Carl (Chuck) Dworkin. Chuck is deeply missed. More details about these people can be found on our web page, where others will be acknowledged as well.

Board of Directors

Kevin Bliss, *Chair*
Martha H. Loew, *Vice-Chair*
James W. Darlington, *Treasurer*
Charlotte Brett, *Secretary*
Matthew Schueler
Buffy A. Quinn
John Pobedinsky
Samuel H. Sage, *President*

The ASLF office remains open throughout the COVID-19 lock-down. We continue to maintain the building and do other necessary chores. Unfortunately, we are not open to the public, and many functions have to be curtailed. But we are here and remain passionate in our mission. So do not hesitate to contact us about issues and problems of interest. Contributions are more needed now than ever! As a result of the coronavirus, welcoming reception for our new executive director has been postponed. As appropriate, we will announce a time and place for this exciting event. Meanwhile, thank you for your continued support, and may you find peace and security in these challenging times.

Staff

Lhakpa Tsering, *Executive Director*
Christine Body, *Assistant Director/Outreach*
Paul Harris, *Program Director*
Hongbin Gao, *Project Manager/Landscape Designer*
Haichao Wang, *Project Coordinator/Landscape Designer*

☐ **YES! I want to contribute to ASLF's important work! Sign me up at the following level:**

- | | |
|--|---|
| ☐ "Supporter" (\$50) | ☐ "Benefactor" (\$500) |
| ☐ "Sponsor" (\$100) | ☐ "Patron" (\$1000+) |
| ☐ "Protector" (\$250) | ☐ Other: _____ |

☐ **YES! am interested in volunteering with ASLF by doing:**

- ☐ Research in support of our programs
- ☐ Outreach in my community
- ☐ Filing and data entry in our office
- ☐ Housekeeping/groundkeeping around our office
- ☐ Landscape maintenance at our various green project sites
- ☐ Tree care at our urban tree nursery
- ☐ Other: _____

☐ **YES! Please sign me up for ASLF's mailing list:**

☐ **I am already on the mailing list. Please update my records with the following information:**

Name: _____

Address Line 1: _____

Address Line 2: _____

City: _____ State: _____ Zip Code: _____

Phone number: _____

Email Address: _____

ABOUT US

Who We Are

Atlantic States Legal Foundation (ASLF) was established in 1982. Our mission is to develop and promote innovative and practical ways to preserve the environment, green the urban core, and protect water resources. We build bridges between communities, technical experts, and the government to advocate for systemic improvements in environmental management, policymaking, and public engagement. Throughout the 1980s and early 1990s, ASLF was the principal NGO utilizing the citizen suit provision of the Clean Water Act as a means of forcing polluters to cease the desecration of America's waterways.

What We Do

In the early 1990s, ASLF became the lead NGO in the national campaign forcing industries to disclose the extent and volume of toxic materials stored at individual facilities. Our previous efforts resulted in a vast number of industries becoming accountable to their residential neighbors in relation to potential risks to otherwise uninformed communities.

What We Care About

As ASLF grew, and as the nation's environmental problems and solutions have become more complex, we have been focusing a greater portion of our time participating extensively in stakeholder negotiations, scientific and technical review and consulting, and community education programs. Our staff scientists work in conjunction with leading experts in the fields of wastewater and mechanical engineering, GIS mapping, chemistry, biology, geology, hydrology, toxicology, and risk assessment, to provide affordable, accessible technical expertise to communities in need. Currently, a major portion of our work portfolio is related to the protection, restoration, and conservation of our urban water resources. Many of our on-going projects have a focus on stormwater and combined sewer overflow (CSO) management. We use green infrastructure installations such as rain gardens, bio-swale, and urban forestry to control nonpoint water pollution in the urban area. We work locally in Syracuse, NY, as well as in surrounding areas in New York State.

Support your favorite environmentalists today! Donating to ASLF is easy with Mightycause.com or by mail. Visitors to our websites can donate simply by clicking the [DONATE](#) button. The QR code on the right will also take you to our Mightycause page. Of course, we still enjoy opening mail to find a donation by cash or check! Please fill out the back of this slip and mail it back to us along with your donation. All contributions to ASLF are tax-deductible to the full extent of the law. Copies of ASLF's financial report may be obtained from the New York Department of State in Albany. Our biggest thanks to all of our donors!



Scan to donate online!



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