

## Reducing Harmful Effects of Stormwater Runoff

### The Challenge:

Sometimes communities receive so much rainfall in a single rain event that stormwater runoff causes localized flooding and soil erosion. The Gill Creek Corridor in Niagara Falls, NY, is accustomed to experiencing stormwater runoff and the negative effects each year as a result of these rain events. The creek flows through both suburban and urban residential areas, a golf course, and an industrial area before flowing into the Niagara River, an area of concern. Excessive stormwater runoff can increase nutrient levels, as well as other pollutants, in water. Hyde Park, an area the creek runs through, has experienced a harmful algae bloom every summer in recent years as a consequence of increased nutrients in the waterway.

### The Solution:

Organizers created a riparian buffer zone (vegetation along the edge of creek banks that intercepts polluted runoff before it reaches the water) and educated the local community about sources of pollution. The USDA Forest Service provided \$176,414 in Great Lakes Restoration Initiative funds for the project. The Buffalo Niagara Waterkeeper, a local nonprofit organization in the Waterkeeper Alliance, brought in \$84,106.66 in matching contributions from other grants. All project goals were completed on time and within budget.

### Resulting Benefits:

Following the riparian buffer project, there are more than 1,000 newly-planted native trees and shrubs that absorb stormwater runoff and prevent water pollution in the Gill Creek area. The project empowered 682 volunteers within the local community to participate in habitat restoration and water protection. Additionally, community members learned about proper tree planting, sources of pollution in a local waterway, and invasive species identification. The Buffalo Niagara Waterkeeper gained valuable connections with members of local volunteer groups. Finally, the plantings help the local waterway be more resilient to



*Volunteers take a break from planting. (Courtesy photo by Wendy Paterson)*

the harmful effects of stormwater runoff when storms occur.

### Sharing Success:

A total of nine signs, including two large and seven small, were developed to inform site visitors about the results of the project. These permanent interpretive signs educate people about the benefits to the local habitat and community. The Buffalo Niagara Waterkeeper drafted a maintenance plan to continue the benefits of this work for years after its completion. The project also leveraged another Waterkeeper effort by enhancing a Living Shoreline Project in Hyde Park, which was funded through the New York Power Authority. "Great Lakes Today," a series that is broadcast throughout the Great Lakes region, aired a report at the project's completion. Other local TV and radio outlets and websites also featured this initiative. This project was made possible through the cooperation and support of the city of Niagara Falls, NY.

Federal Award: 16-DG-11420004-017

*More than 1,000 trees and shrubs were planted in the project.*



**Forest Service  
Eastern Region  
State and Private Forestry**

Robert Lueckel, Acting Regional Forester  
626 E. Wisconsin Ave.  
Milwaukee, WI 53202  
414-297-3765  
[robert.lueckel@usda.gov](mailto:robert.lueckel@usda.gov)

Mark Buccowich, Acting Deputy Regional Forester for State & Private Forestry  
626 E. Wisconsin Ave.  
Milwaukee, WI 53202  
414-297-3663  
[mark.buccowich@usda.gov](mailto:mark.buccowich@usda.gov)

<https://www.fs.usda.gov/naspf/>  
*USDA is an equal opportunity provider, employer, and lender.*  
August 2019