



Niles Community Rain Garden

Village of Niles, Cook County

The problem

The Coca-Cola Bottling Company approached the Village of Niles in 2008 to collaborate on a sustainability initiative. The assistant Village Manager and LEED-certified professional, Steven Vinezeano, had been interested in building rain gardens and this project seemed to be a great public-private partnership opportunity for the village.

Increased impervious surfaces like roads, buildings, and parking lots directly correlate with increased flooding and contaminated rivers, lakes, streams, and ultimately – drinking water. When it rains, the water cannot penetrate these surfaces and is funneled into the sewer system, bringing along pollutants like oil, salt, fertilizer, pesticides, pet waste, transportation chemicals, sediment and other contaminants.

The solution

If the rain were able to fall on a pervious surface, it would have a chance to be naturally filtered and returned to the deep water aquifers. If enough rain gardens are created, we can drastically reduce flooding incidents and protect the watershed basin. In this case, the Village of Niles benefits from the environmental effects and Coca-Cola protects a resource that is essential to their product – water.

A rain garden is a planted depression that collects and filters rainwater runoff from impervious urban areas like roofs, driveways, walkways, and compacted lawn areas. It reduces the runoff by allowing stormwater to seep naturally into the ground instead of flowing into storm drains and surface waters which can cause erosion, pollution, flooding, and diminished groundwater. Native plants are recommended for rain gardens because they generally don't require fertilizer and are more tolerant of local climate, soil, and water conditions. A rain garden is a stormwater best management practice (BMP) in the broader context of watershed protection.

The process

The first step was to select a site. It was important to identify a site that would both optimize the functioning of a rain garden and lend itself to educating the public. A vacant lot near the Niles Pumping Station was selected. After the site was identified by the Village, Coca-Cola contracted a landscape architect to design the underutilized vacant lot, for a cost of \$5,000. After the site was selected and a design approved, the project was divided into three build-out phases, and completion of each phase marked important milestones for the Village. To begin the next step, it was essential to find leadership support for a demonstration project and buy-in from potential donors in order to get the financial assistance necessary.

In Phase 1, Coca-Cola purchased \$6,000 worth of mulch, compost, river rock, stone, top soil, plants, and other materials. They also contributed 150 volunteers to work on the project along with other volunteers in the community. In one day, they were able to construct the first rain garden plot (of several planned rain gardens).

The second phase of the project was completed in the spring of 2009. Additional donations and grants totaling \$7,000 paid for materials and a resident with a local landscaping company donated excavation work worth over \$15,000. In the spring of 2009, a group of volunteers and rain garden donors spent a Saturday installing the second Phase of the rain garden, with a total of 2,754 square feet of rain gardens and 1,866 square feet of prairie grass areas, both holding over 2,000 native plantings.

Overview

A public-private partnership between the Village of Niles and the Coca-Cola Bottling Company led to the construction of a rain garden that educates the public on water conservation, provides a great public space, and helps replenish approximately 5.5 million liters of water per year.

CMAP Resources

- [Stormwater Management Strategy Report](#)
- [Conservation Design Strategy Report](#)
- [GO TO 2040 Chapter on Livable Communities](#)
- [Guidance for Developing Watershed Action Plans in Illinois](#)

GO TO 2040 Recommendation:
Livable Communities -
Encourage the integration of resource conservation in land use planning.



Rain garden site plan

For more information

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The third phase of the project includes two specific long-term goals: 1) To inspire and encourage residents, businesses, schools, institutions, and other communities from the region to become more knowledgeable about rain gardens and sustainable methods of water stewardship and to implement similar projects; and 2) To develop educational methods to help facilitate the proliferation of similar projects throughout the community and region for groups and individuals who want to make a difference in saving and protecting our natural resources and environment.

Community concerns

Overall, the rain garden was considered to be a positive project by the community – even for those who do not completely understand the function served by a rain garden. The bulk of the public involvement came after the initial project selection stage. The contributions from local businesses and residents helped to show that the project was widely popular, and the project continues to thrive with volunteer support and donor assistance.

The Village of Niles is grateful for the support and sponsorship of Coca-Cola, Smith Engineering, Chris' Landscape, Home Depot, Niles Lions Club, Groot Industries, ComEd, Lurvey Landscaping Supply, Pizzo Ecological Restoration, Environmental Adventure Club of Notre Dame High School, and the hard-working employees of the Niles Sewer and Water Department.

Outcomes

The project was recognized by the Royal Bank of Canada with a Blue Water Project Grant of \$5,000, a program designed to help foster a culture of water stewardship by providing community action grants around the world.

Calculations indicate that the rain garden will help to replenish 5.5 million liters of water per year. Coca-Cola has since constructed rain gardens in 7 other locations and intends to build rain gardens in conjunction with future construction projects whenever possible. The educational component continues as the site is maintained by the Notre Dame High School's Environmental Adventure Club.

The Village of Niles is considering locations for future rain gardens and will target areas that have had stormwater drainage problems. They are currently developing a major study on stormwater with Hey & Associates that will lead to the development of a Stormwater Master Plan and a prioritized Capital Improvement Plan.

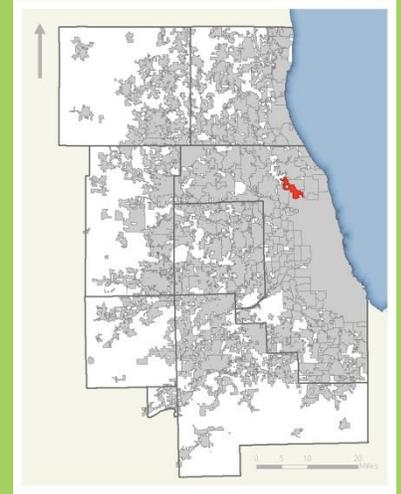
Lessons learned

Steven has four recommendations for other communities:

1. Identify a location that is functional and visible;
2. Establish support for the concept of a demonstration rain garden site among municipal leadership;
3. Garner support and buy-in from potential donors; and
4. Involve the whole community as much as possible

Contact Lindsay Banks (lbanks@cmap.illinois.gov) to submit a case study.

Location Map:



Additional Resources

- [US EPA Rain Garden fact sheet](#)
- [Governor Quinn's Rain Garden Initiative](#)
- [Rain Garden Network](#)
- [Conservation Foundation's Rain Garden Brochure](#)



Recently planted rain garden



Volunteers at work