



NEW YORK STATE ENVIRONMENTAL EXCELLENCE AWARD CASE STUDY

Onondaga County - Honored for transforming the “civic strip” in downtown Syracuse into a green infrastructure corridor.

SUMMARY

Onondaga County was awarded in 2013 for implementing a number of green infrastructure projects that transformed the “civic strip” in downtown Syracuse into a green infrastructure corridor. The green infrastructure projects were a part of the county’s Save the Rain project. Several innovative green energy technologies have been incorporated into Save the Rain projects, including LED lighting, solar-powered trash compaction and electric car charging stations.



BENEFITS

Onondaga County’s Save the Rain Program includes green infrastructure projects located on the civic strip, including a 66,000 square-foot green roof, a water reuse cistern system, bioretention plantings, underground infiltration systems and porous pavement.

The Save the Rain Program features an innovative and comprehensive combined sewer overflow (CSO) abatement program that integrates conventional wastewater/stormwater treatment technologies with advanced green infrastructure practices to improve water quality in the Onondaga Lake watershed. The civic strip projects are capturing approximately 6.2 million gallons of stormwater annually. The reduced water flow to treatment plants results in an energy savings of approximately 12,450 kilowatt hours each year.

KEY METRICS

- 6.2 million gallons stormwater runoff reduced annually from the projects on the civic strip
- Over 100 green projects have been installed through the Save the Rain program as of 2013
- 100 million gallons of water and 200,000 kilowatt hours of energy saved annually from all projects as of 2013

ABOUT ONONDAGA COUNTY

- Population 467,000
- 806 square miles

NYS Environmental Excellence Award: Annual recognition of outstanding innovative and sustainable projects or programs and unique partnerships that are improving and protecting New York State’s environmental resources and contributing to a stronger economy

A MODEL OF EXCELLENCE

- Save the Rain Program has a goal of capturing 95% of sewer overflow by 2018
- Tree trenches provide structural soil, capture and infiltrate surface runoff from an asphalt lot
- Green roof system captures over one million gallons of water annually
- Underground infiltration systems and porous pavement reduce the amount of rainwater that enters the sewers
- An innovative water re-use system at the OnCenter War Memorial captures rain water and snow melt runoff from the arena roof, reusing the stormwater primarily for ice production and ice maintenance for events at the arena, including sporting events and family entertainment.

HIGHLIGHTS

Save the Rain is a comprehensive combined sewer overflow (CSO) abatement program designed to improve water quality in Onondaga Lake and its tributaries using a balanced gray and green infrastructure approach to water resource management. Onondaga County is committed to capturing 95% of its annual CSO volume by 2018 using these methods.

The OnCenter's green roof system was designed to accommodate stormwater from a 1 inch rain event, capturing over one million gallons annually. The roof consists of a waterproof membrane liner that is covered with a layer of lightweight growing medium, and planted with a mix of sedums – low-growing succulent vegetation. The new rooftop landscape is a self-sustaining system, requiring little maintenance and relies upon natural processes to retain and evapotranspire stormwater runoff.

A part of Harrison Street was transformed and now features a sidewalk planter that uses bioretention processes to capture and treat surface runoff from the adjacent roadway. Runoff enters the planter via four new curb stormwater inlets, irrigating the new native shade trees, ornamental shrubs, and colorful perennials, and then flows through an infiltration trench into the groundwater.

The innovative water reuse project at the County's War Memorial Auditorium. The Arena is the home of the Syracuse Crunch AHL hockey team. When hockey season began in fall of 2011, the Crunch became the first professional hockey team in the country to play on frozen stormwater.

FUNDING

The total program budget for Save the Rain is approximately \$400 million, with \$78 million dedicated to green infrastructure projects. Several grants have contributed funding toward these civic strip projects.

Onondaga County received a \$3 million Water Quality Improvement Project grant from the NYS Department of Environmental Conservation for green infrastructure development in the civic strip. The War Memorial Stormwater Reuse Cistern System also received funding totaling \$712,500 from the NYS Environmental Facilities Corporation through the Green Innovation Grant Program.