

## Grass Roots Water Education Campaign: Rain Garden and Rain Barrel Pilot Projects

### Description

As part of Mayor Daley's commitment to the environment, and given the critical importance the city places on our water resources, the city is exploring the tremendous opportunity household-level greening offers. During the summer of 2004, the City of Chicago initiated two community level stormwater management projects as part of the city's Water Education Campaign. The Rain Barrel and Rain Garden projects demonstrated stormwater best management practices (BMP), involving residents in protecting and improving our water resources. The majority of the outreach and implementation occurred in summer and fall of 2004, with monitoring and follow-up continuing throughout 2005.



The rain barrel project cost the city approximately \$40,000, exclusive of city staff labor. The rain garden project cost the city approximately \$10,000, exclusive of city staff labor.

### Background

The stormwater BMP projects targeted nine areas in Chicago, and selection was based on the frequency of flooding complaints to the city service line. The Department of Environment reached out to target areas by presenting at CAPS meetings, placing flyers at individual houses, attending garden walks, talking with and sending flyers and blurbs to CAPS representatives, aldermanic offices, community leaders, block and garden club presidents, local newspapers, etc. The presentations and conversations helped city residents make the connections between disconnecting their downspouts to manage stormwater on-site and combined sewer systems overflows impacts on our waterways.

In some neighborhoods, it took time to generate interest in owning a rain barrel or

being a steward for a parkway rain garden, but, with help from community leaders and newspaper features about the projects, we had overwhelming interest throughout the city.



The city job training program, Greencorps Chicago, retrofitted the food-grade barrels with spigots, overflow holes and mosquito screens to create the rain barrels. They also designed the rain gardens in consultation with various rain garden experts and stewards at each site.



### Results

DOE held nine "Roll out the Barrel" (ROTB) events, five in the targeted wards, and 4 at a LEED Platinum city building. Over 400 city residents purchased a rain barrel, received information about the barrel and how to take care of it, and received information brochures about West Nile Virus, disconnecting downspouts and other water-related issues.

Using data from the past year's rainfalls, we estimate that the rain barrel pilot project could divert over 760,000 gallons of water from entering the city sewer system over the course of a year. And if each household uses the rain barrel water after each rain event during the warm-weather months, over 407,000 gallons of water a year would be conserved. If each household uses the rain barrel water only when it is full (after rainfall of 1 inch or more), then almost 170,000 gallons of water a year would be conserved. (Assumptions: During a 1-inch rainfall, at a typical Chicago house with 4 downspouts, one disconnected downspout accepts 55 gallons of water. Any rainfall over 1 inch indicates 55 gallons of water in one rain barrel, and proportionately so down to trace amounts of rain. So a half-inch rain fall indicates 27.5 gallons of water in one barrel; Rain barrel water is not used during the cold-weather months of October thru March.)

Four rain gardens were planted over two days in one targeted ward. Signs are posted in the gardens, explaining the beneficial features. 10,000 brochures explaining the benefits of rain gardens and how to make one will be distributed throughout the city. It is expected that the rain gardens will divert stormwater from the sewers, and more importantly, educate the public about their importance. Additional outreach events are planned in conjunction with the rain gardens, such as native plant seed exchanges and a workshop on rain gardens at the Norwood Park Historical Society, where one of the rain gardens is planted.

#### Contacts

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