City of Aurora

Using Green Infrastructure to Control Combined Sewer Overflows
What are Combined Sewer Systems and How Do they Operate?

Courtesy of SD #1 of Northern Kentucky
What is a Bioinfiltration Basin?

• An infiltration device that consists of a shallow depressional area covered with a layer of engineered soil and planted with native vegetation.

• Stormwater is directed into the basin where it percolates through the soil and is treated by a variety of physical, chemical and biological processes before infiltrating into the native soil.
City of Aurora Raingarden Program

2014
- Constructed 130 raingardens at 17 Intersections
- Treats Stormwater Runoff from over 50 acres

2015
- Constructed 3 additional raingardens
- Treats Stormwater Runoff from over 5 acres of parking lot and roadway
GREEN INFRASTRUCTURE COMBINED SEWER OVERFLOW CONTROL PROGRAM
TYPICAL RAIN GARDEN 4-WAY INTERSECTION IMPROVEMENTS

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture
GREEN VS. GREY CSO CONTROL COST COMPARISON

GREEN INFRASTRUCTURE ALTERNATIVE = $1,800,000
GREY INFRASTRUCTURE ALTERNATIVE = $3,600,000
Stormwater Infiltration Catch Basin
Rain Garden Inlet Structures

EXPOSED

CONCEALED
Rain Garden Inlet Structures
Metra Commuter Parking Lot Retrofit
Advice: Be Careful When Choosing Sites for Infiltration BMP’s
Metra Commuter Parking Lot Retrofit
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Get The Public Involved Early In The Planning Process
Choose Site-Appropriate Planting Plan

SIMPLE, ORGANIZED

COMPLEX, NATURAL
Every community needs a Champion