2009 Stormwater Awards

Village of Bannockburn

Liberty Prairie Area Homeowners Association

Lake County Central Permit Facility

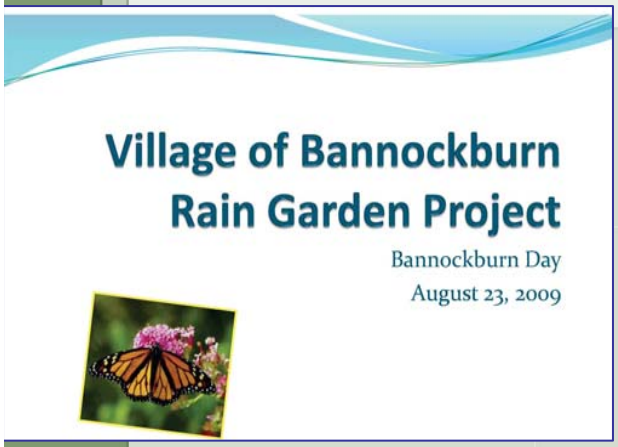
Lindenhurst Park District

Roger Bannerman

May 6, 2010

Lake County Stormwater Management Commission

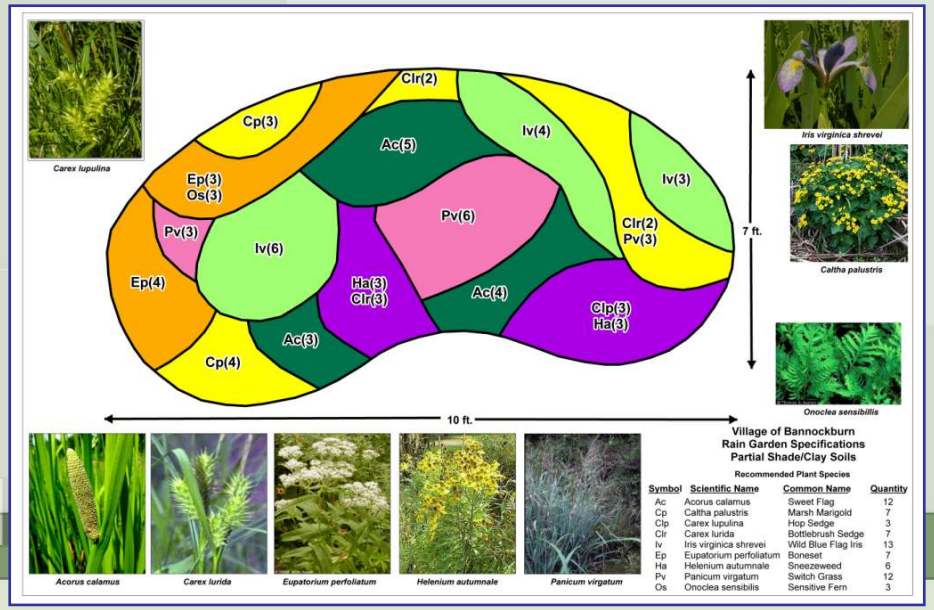
Village of Bannockburn
“Community of the Year”



Garden on Village property

Bannockburn School garden

2009 Bannockburn Days



Symbol	Scientific Name	Common Name	Quantity
Ac	Acorus calamus	Sweet Flag	12
Cp	Caltha palustris	Marsh Marigold	7
Clp	Carex lupulina	Hop Sedge	3
Clr	Carex lurida	Bottlebrush Sedge	7
Iv	Iris virginica shrevei	Wild Blue Flag Iris	13
Ep	Eupatorium perfoliatum	Boneset	7
Ha	Helenium autumnale	Sneezeweed	6
Pv	Panicum virgatum	Switch Grass	12
Os	Onoclea sensibilis	Sensitive Fern	3

Liberty Prairie Area Homeowners Association
"Stewardship of the Year"

LPAHA members planting

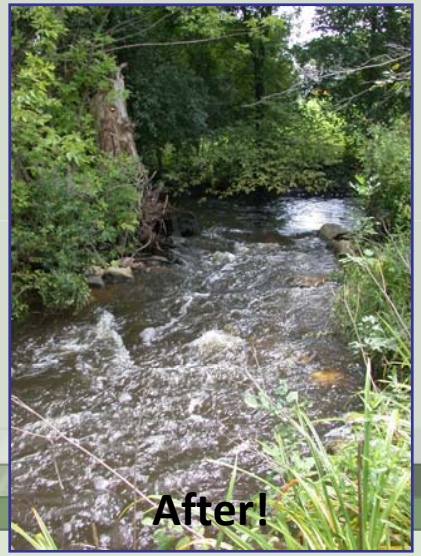
1 mos. after planting

2 mos. after planting

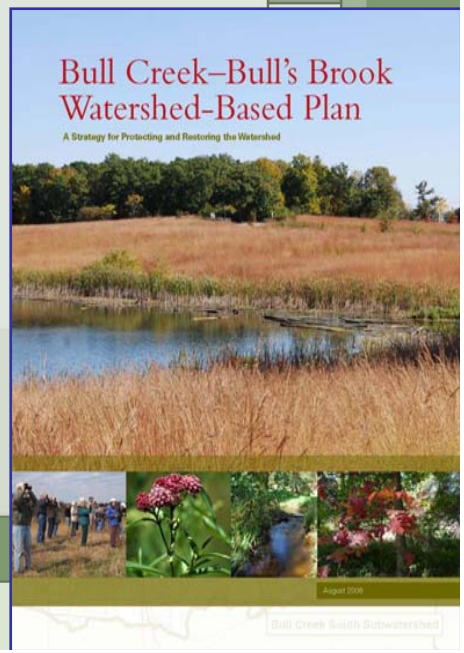
Liberty Prairie Sedge Meadow Project

Before

During


After!

Watershed tours



Lake County Central Permit Facility
"Development of the Year"

The New Lake County Central Permit Facility

"Green Building" Design

The new facility incorporates a number of features that makes it the greenest project Lake County has created to date.

A Bioswales use native grasses with layers of stone and a custom soil mix to filter and regulate stormwater before it flows into the storm sewers. This helps reduce pollution and the "storm surge" load on the system.

B A green roof uses plants and grasses to absorb rainfall thereby reducing runoff and pollutants from the roof surface. It also keeps buildings cooler in the hot summer months.

C Rain gardens are landscape areas that soak up rainwater and infiltrate it into the ground, reducing runoff and pollution by 55-90%.

BMP Project Summary:

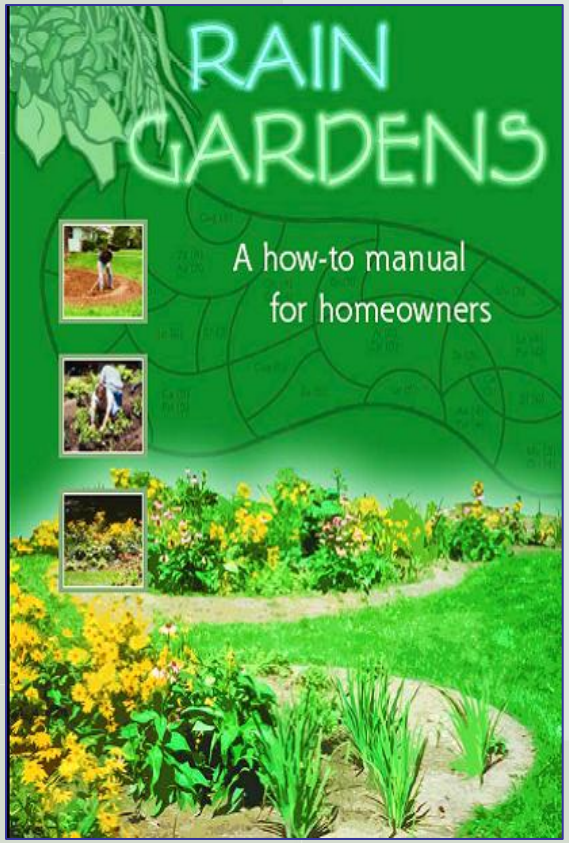
Stormwater Best Management Practices (BMPs) at the Central Permit Facility were designed and constructed to reduce stormwater runoff and pollution to provide cleaner water and to recharge the groundwater aquifer. The practices include a green roof, rain gardens, native plant swales, a bio-infiltration swale and wetland detention basins. Each of the practices individually absorbs rainfall and filters pollutants from stormwater runoff, and together they operate as a collective system reducing the volume of runoff and pollution that reaches Bull Creek and the Des Plaines River. The total BMP installation cost was $217,683.68 of which $118,584 was covered by a Section 319 Nonpoint Source Pollution Reduction grant from IL EPA. Total installation cost was for the Libertyville BMPs is $217,683.68

Lindenhurst Park District
“BMP Project of the Year”

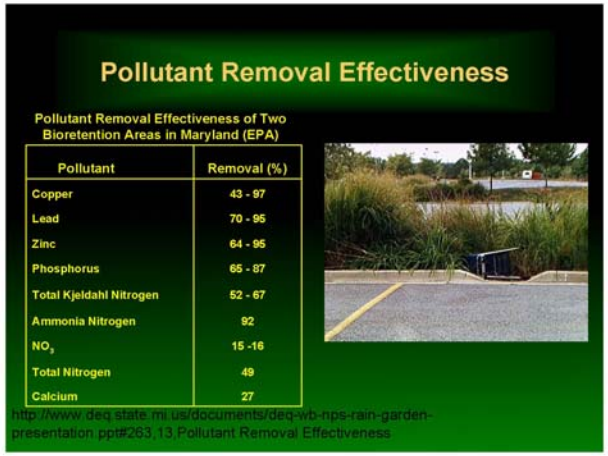
Ribbon Cutting Celebration
Wed., June 2, 2010
6 – 8 p.m.

Roger Bannerman
"Stormwater Manager of the Year"

Presenting in Lake County in 2008



Madison, WI rain garden projects



Pollutant Removal Effectiveness

Pollutant Removal Effectiveness of Two Bioretention Areas in Maryland (EPA)

Pollutant	Removal (%)
Copper	43 - 97
Lead	70 - 95
Zinc	64 - 95
Phosphorus	65 - 87
Total Kjeldahl Nitrogen	52 - 67
Ammonia Nitrogen	92
NO_3	15 -16
Total Nitrogen	49
Calcium	27

http://www.deq.state.mi.us/documents/deq-wb-nps-rain-garden-presentation.ppt#263,13,Pollutant Removal Effectiveness