



NEIGHBORHOOD OUTREACH & GREEN INFRASTRUCTURE INSTALLATIONS

Alyssa B. Schmitt, Project Engineer

Adrienne Cizek, PhD, P.E., Project Engineer



OVERVIEW



Stormwater Impacts



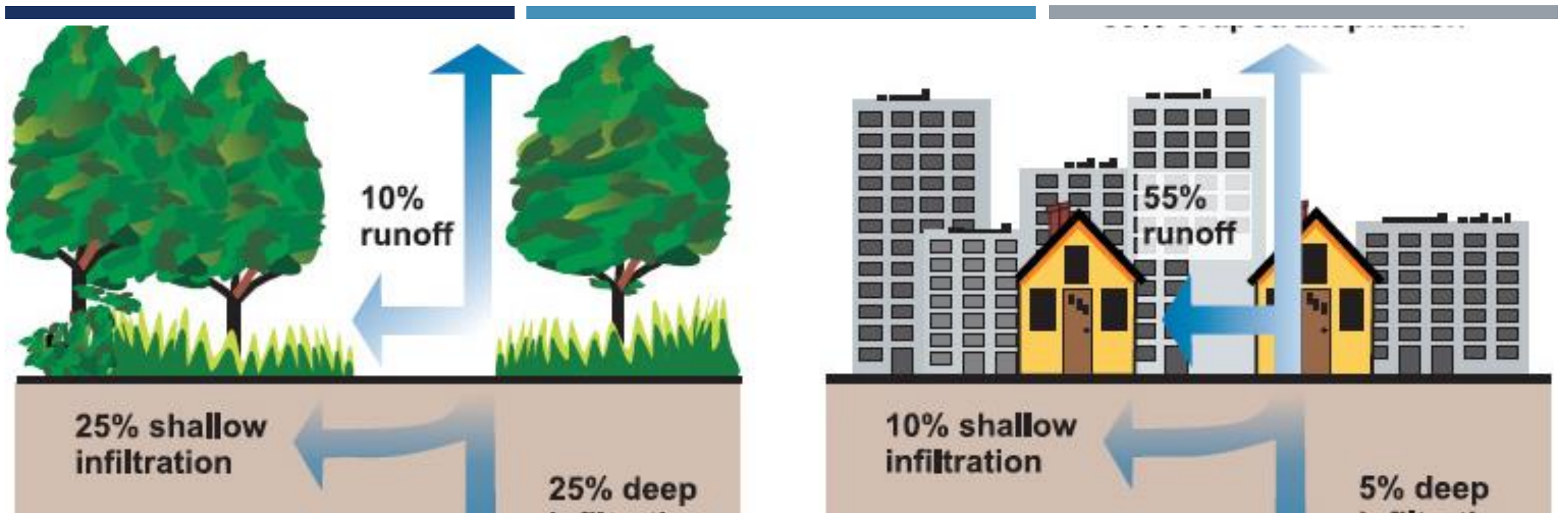
Stormwater in Neighborhoods



Outreach in Neighborhoods

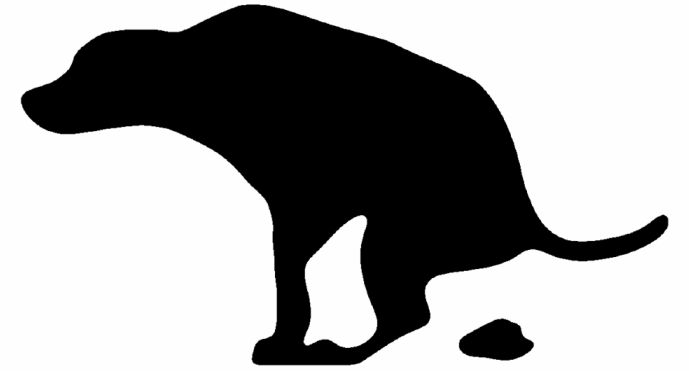


Case Studies

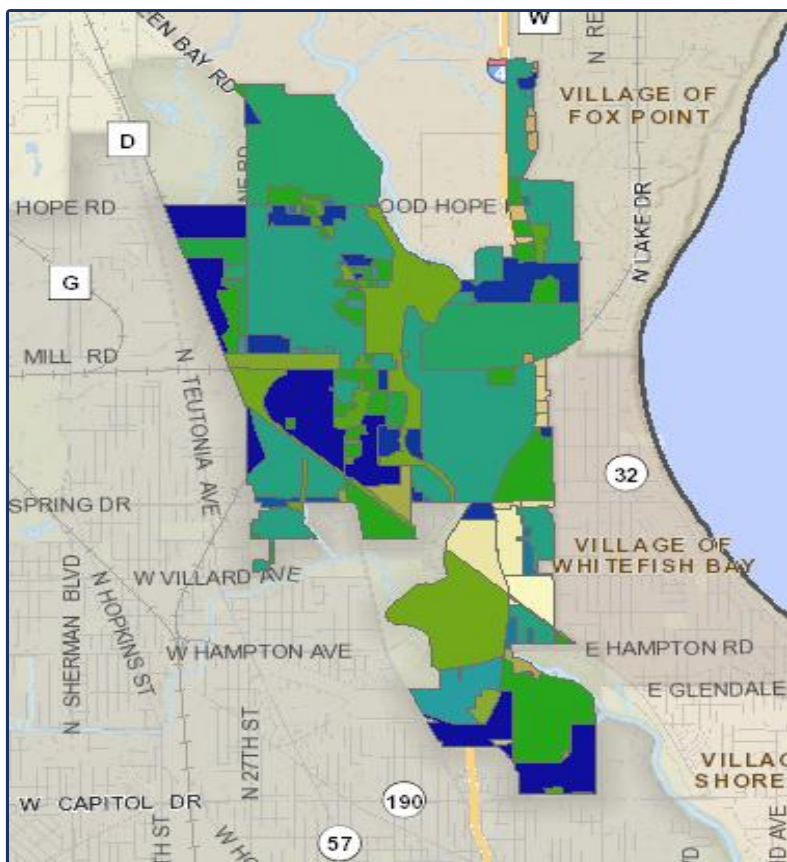


STORMWATER 101

STORMWATER 101



STORMWATER IN NEIGHBORHOODS



- Large fraction of (sub)urban land use is residential
- Imperviousness typically between 25% (medium density) and 40% (high density)
- Individual lots do not typically trigger requirements for post-construction stormwater management
- Municipal ordinance in place to disconnect downspouts

STORMWATER IN NEIGHBORHOODS - IMPACT

- Investigation into flooding problems on Alverno College Campus
- 270-home neighborhood is main watershed west of site
- Modeling showed that installing a rain garden on 25% of the properties would result in a **15% decrease** in peak flow to the site



OUTREACH IN NEIGHBORHOODS

Outreach is important because...

- Public need for information
- Public sees the problem, but doesn't know how they impact it
- Group buy-in
- Encourages dialogue between stakeholders
- Translates to larger projects



OUTREACH IN NEIGHBORHOODS

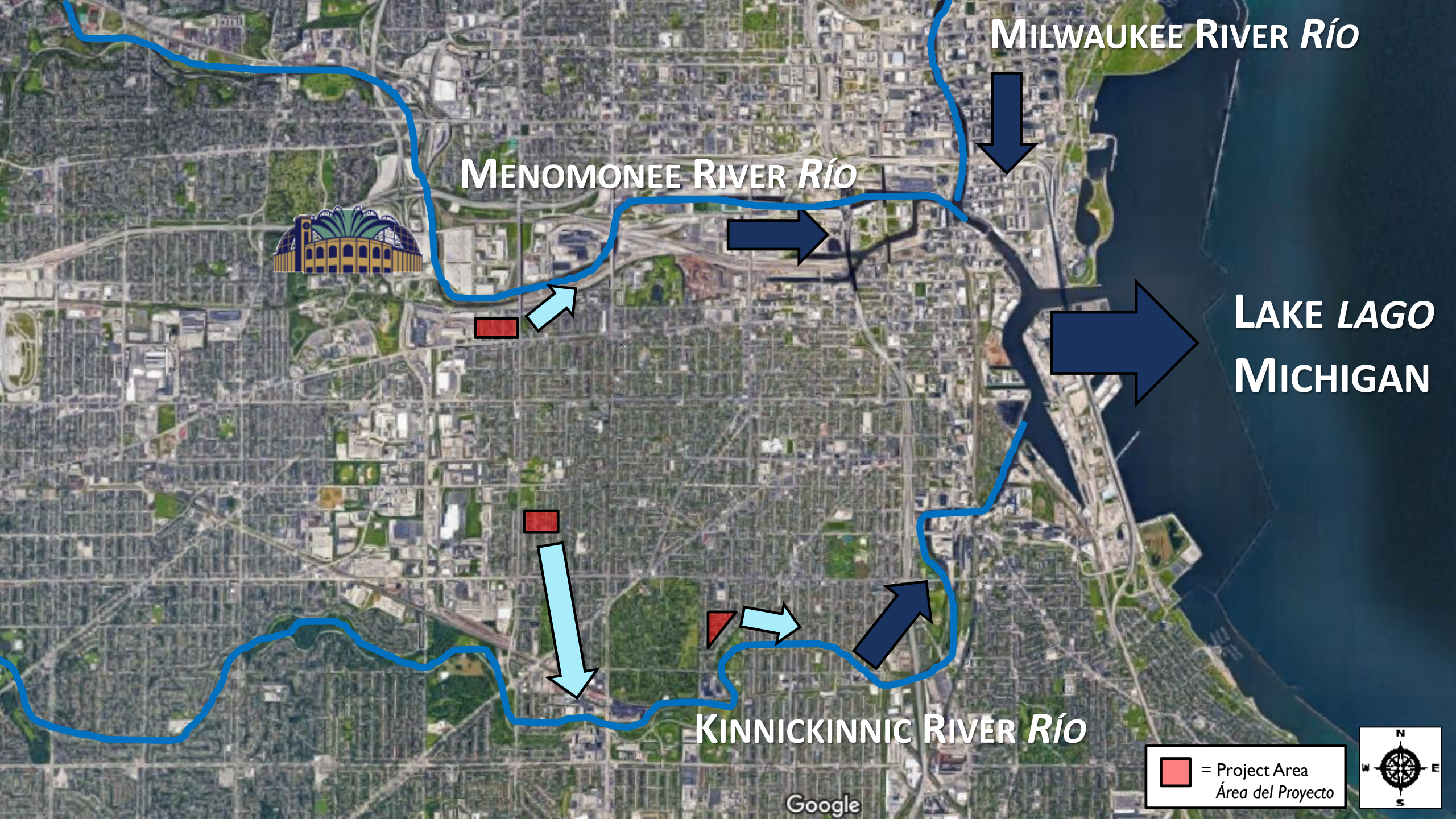
- Define goals
- Identify stakeholders (i.e. residents, municipalities, NGOs, etc.)
- Begin with a clear, consistent message
- Tailor opportunities for sharing message to specific community

An aerial photograph of Milwaukee, Wisconsin, showing the city skyline, the Milwaukee River, and Lake Michigan. The city is densely packed with buildings, and the river flows through the center. The lake is visible on the right side of the image.

MILWAUKEE, CITY OF WATER

CIUDAD DE AGUA





MILWAUKEE RIVER *Río*

MENOMONEE RIVER *Río*

LAKE LAGO
MICHIGAN

KINNICKINNIC RIVER *Río*

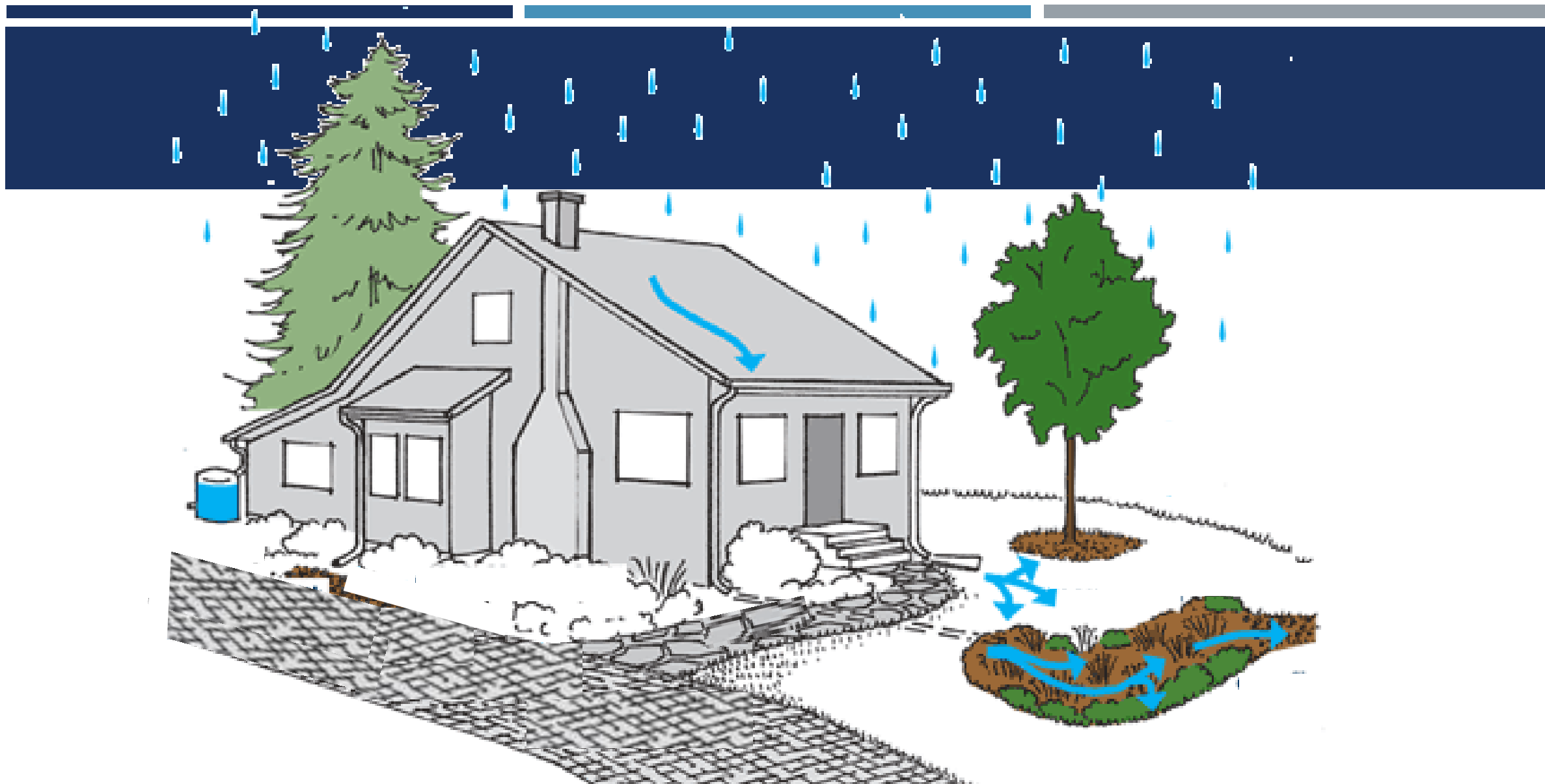
■ = Project Area
Área del Proyecto



Google







STORMWATER SOLUTIONS ENGINEERING, LLC

Our Mission:

“Improving the Built Environment in Communities through Sustainable Engineering and Design”

CASE STUDIES

- Milwaukee Metropolitan Sewerage District 2035 VISION

“Zero basement backups, zeros overflows, and improved water quality.”

- Have enough green infrastructure (GI) within district to capture 740 million gallons every time it rains
- Efforts:
 - Green Seams
 - MMSD GI Partnership Grant
 - Green Solutions for Municipalities
 - **GI Outreach in Neighborhoods**



CASE STUDIES

“Incorporating GI into neighborhoods will reduce stormwater (or combined sewer) flows and pollutants into District sewers, while providing educational and informational opportunities for water conscious families. “

- Projects SSE were involved in:
 - 2016 City of Greenfield
 - 2018 Village of Shorewood

CASE STUDIES – REASONS FOR WHY

City of Greenfield

- Flooding of Alverno Property
- Separated Storm Sewer
- Downstream Water Quality
- Basement Backups
- “Green” in Greenfield
- MS4 Permit Compliance

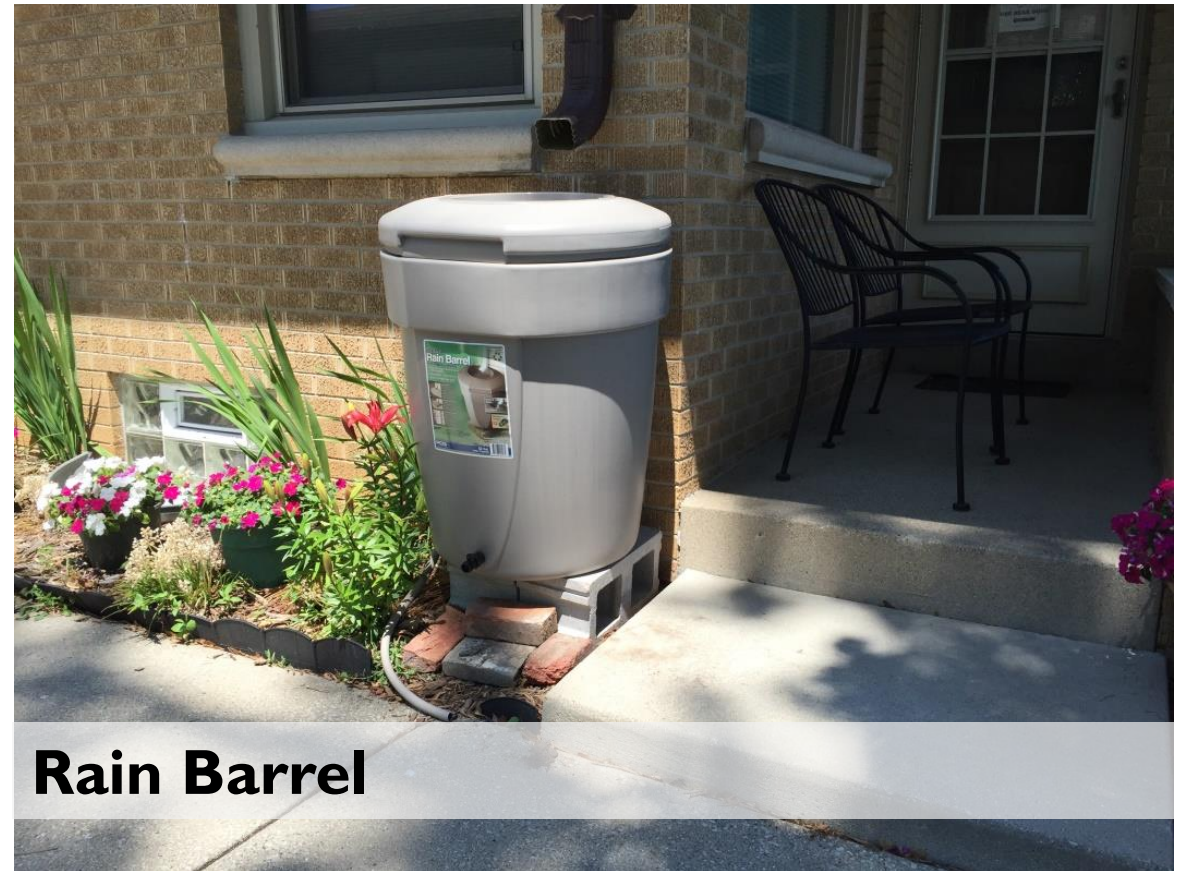
Village of Shorewood

- Localized Flooding
- Basement Backups
- Combined & Separated Sewer Systems
- Downspout Disconnect Mandate
- Existing *Shorewood Waters Program*
- Small Lots
- MS4 Permit Compliance

GREEN INFRASTRUCTURE



Rain Garden



Rain Barrel

GREEN INFRASTRUCTURE IN NEIGHBORHOODS

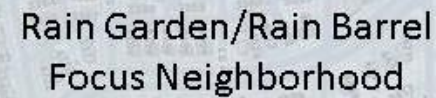


Soil Amendments



StormGUARDen

- 270-lot neighborhood
- Lot size ~ 0.25 ac
- Storm sewer to tributary to KK River



CITY OF GREENFIELD – PROJECT GOALS

- Install Rain Barrels and Rain Gardens on 25% of the homes in the Alverno Greenfield Neighborhood
 - 45 Rain Barrels
 - 34 Rain Gardens

CITY OF GREENFIELD – OUTREACH

- Farmer's Markets



CITY OF GREENFIELD – OUTREACH



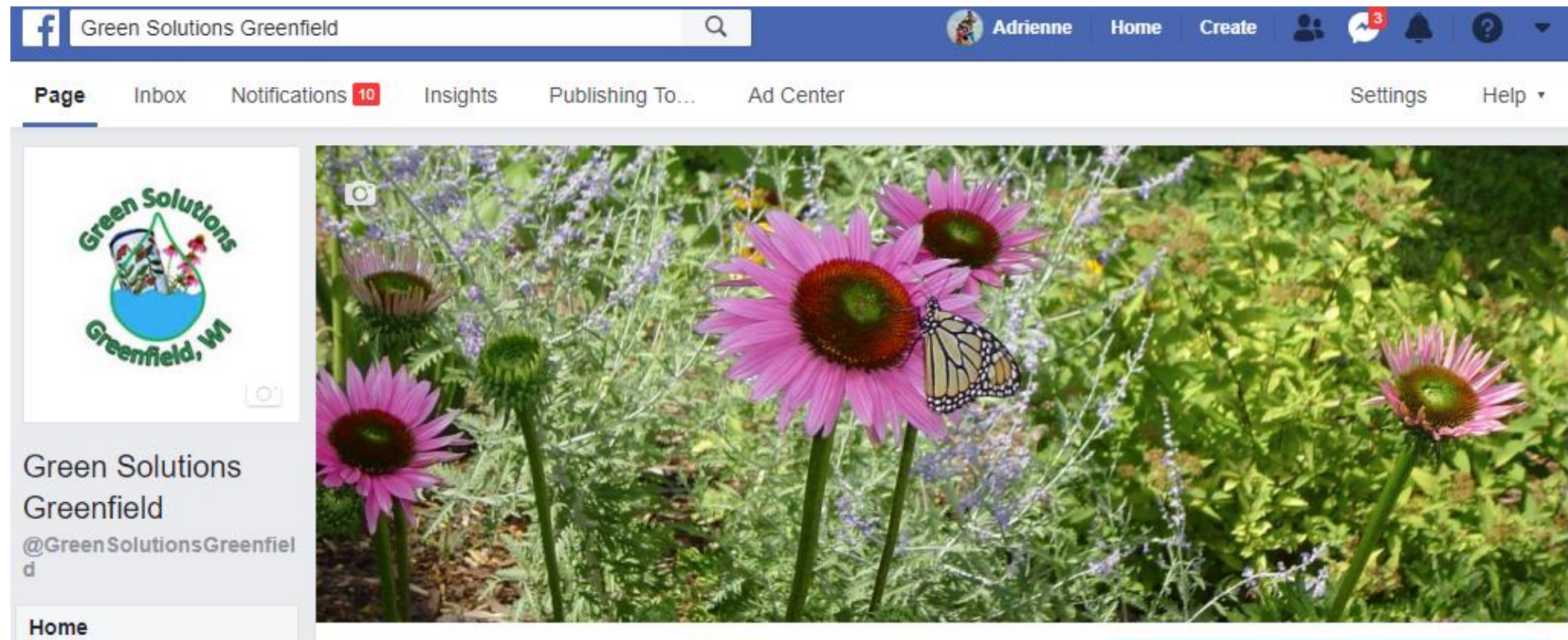
FREE RAIN GARDEN AND RAIN BARREL PROGRAM IN YOUR NEIGHBORHOOD



Help reduce the risk of basement backups, sewer overflows and water pollution by managing water where it falls. The Milwaukee Metropolitan Sewerage District (MMSD) is providing free downspout disconnection in your neighborhood. Water from your rooftop can then be directed into a rain barrel or rain garden, instead of flowing downhill to become someone else's headache or water pollution.

The program is available for residents in the neighborhood west of Alverno College (See map below). If you are interested in a free rain garden or rain barrel (even if your downspout already drains to the lawn), and your home is located in the neighborhood bounded by S. 43rd Street, W. Forest Home Road, and W. Morgan Ave please contact Stormwater Solutions Engineering (414-810-1245) or email info@stormwater-solutions-engineering.com for more information.

CITY OF GREENFIELD - OUTREACH



Social Media

CITY OF GREENFIELD - OUTREACH

- Neighborhood Canvassing

FRESHCOAST 740
MILWAUKEE, WISCONSIN

**HELP MANAGE WATER
WHERE IT FALLS
IN GREENFIELD**

With **FREE** Rain Barrels and Rain Gardens



DID YOU KNOW

Managing water where it falls reduces the risk of basement backups, sewer overflows, and helps protect our rivers and Lake Michigan.

MMSD is working with Stormwater Solutions Engineering and Alverno College to help you become part of Greenfield's stormwater solution. We're going to be disconnecting downspouts, and installing rain barrels and rain gardens in Greenfield for **FREE**. Supplies are limited; please contact us at the phone number on back side to reserve your spot on our list now! All rain gardens and rain barrels are distributed on a first-come, first-served basis.

CITY OF GREENFIELD - OUTREACH

- Incorporated Rain Garden into community garden tour



HELP MANAGE WATER WHERE IT FALLS IN GREENFIELD

Rain Gardens help infiltrate rainwater onsite and keep excess stormwater runoff out of our basements, storm sewers, and lakes. Milwaukee Metropolitan Sewerage District is installing **FREE rain gardens** in Greenfield. Come visit the newly installed **rain garden** at City Hall to get a closer look and find out more about the work MMSD is doing in your city!

The rain garden is located at Greenfield City Hall:

7325 W Forest Home Ave

on the south side of the building. Drive up to City Hall, and follow the road right. Park in the parking lot and take a closer look at the garden!





CITY OF GREENFIELD - OUTREACH

- Public Art

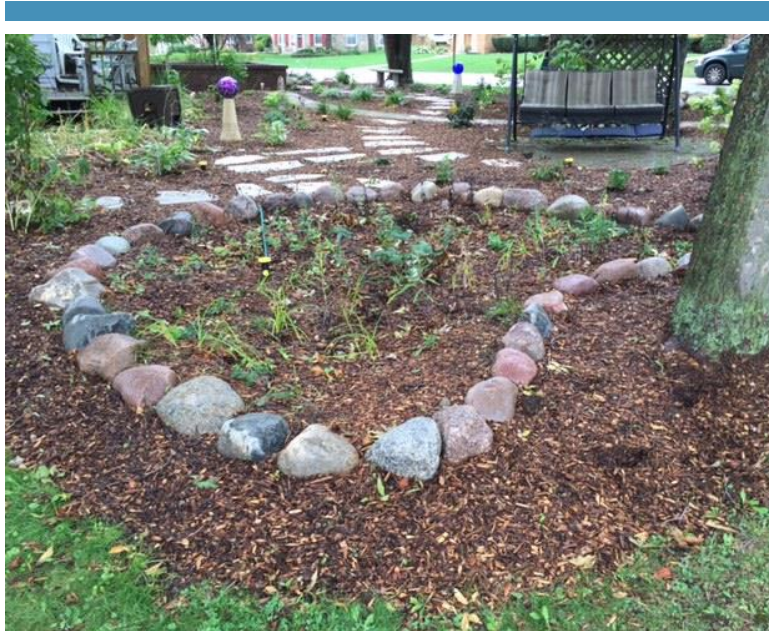
GREEN INFRASTRUCTURE INSTALLED & PEOPLE REACHED

- Green Infrastructure:
 - 28 Rain Barrels, 7 Rain Gardens
 - 13% neighborhood residents
 - 64 Rain Barrels, 12 Rain Gardens Total
 - 11,000 gal of rainwater each storm event
- 465 people directly impacted, many more reached through social media/televised segments

CITY OF GREENFIELD



CITY OF GREENFIELD





CITY OF GREENFIELD

VILLAGE OF SHOREWOOD

Target Goals

- Green Infrastructure Installations:
 - Rain Gardens: 10
 - Soil Amendments: 20
 - StormGUARDens: 10
 - Rain Barrels: 50
- People to reach:
 - 5,000

Events & Outreach

- Shorewood Splash Kick-off Party
- Farmer's Markets
- Fish & Feather Festival
- Gardening for Birds, Bees & Butterflies
 - Rain Garden / Rain Barrel Workshop
- Neighborhood Canvassing
- Village President's Newsletter
- Social Media

VILLAGE OF SHOREWOOD – OUTREACH

PUBLIC / MUNICIPAL BUILDING INSTALLATION



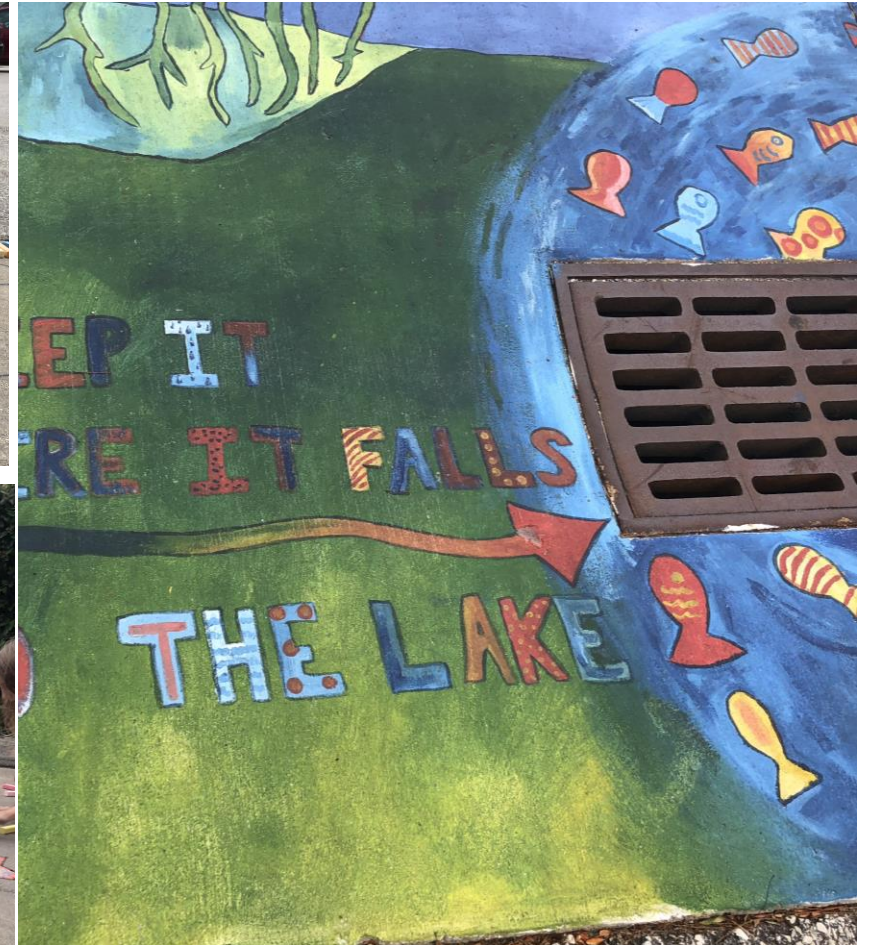
VILLAGE OF SHOREWOOD – OUTREACH

SHOREWOOD SPLASH KICK- OFF PARTY



VILLAGE OF SHOREWOOD – OUTREACH

PUBLIC ART



VILLAGE OF SHOREWOOD - OUTREACH

FARMER'S MARKETS



VILLAGE OF SHOREWOOD – OUTREACH

FISH & FEATHER FESTIVAL



Free Event!

Shorewood Fish & Feather Festival

Saturday, October 6, 2018
11am to 3pm
Hubbard Park, 3565 N. Morris Blvd. Shorewood, WI
Hosted by: Village of Shorewood and the Shorewood Waters Project

Join us for a beautiful day on the banks of the Milwaukee River. Enjoy the fall colors, salmon running up river, great food, music and these fun activities:

- See huge salmon swimming upstream in the Milwaukee River as the spawning season begins.
- Check out Fly Fishing with Trout Unlimited.
- Take a walk on the wet side – Take a fall walk in the river as gigantic salmon swim up stream! Waders are available at no cost.
- See animals, reptiles and birds up close and personal!
- Visit nearly two dozen interactive booths of local outdoor organizations and vendors.
- Discover fun activities for kids: face painting, bee house making, painting free birdhouses, pumpkins and fish.
- Enjoy music and food for purchase by Hubbard Park Lodge. Don't miss the Hubbard Park Beer Garden too!

NEW! - Adopt-A-River Milwaukee River Clean-up - 9am to 11am (before Fish and Feather Festival)
Where: The Milwaukee River under the Capitol Drive bridge to Hubbard Park on the Milwaukee River. This Adopt-A-River Clean-up is sponsored by Milwaukee Riverkeeper in partnership with the Shorewood Conservation Committee and Parks Commission.


Recycling Collection: 11 am to 1 pm - DPW Yard at 3801 N. Morris Boulevard
Goodwill will also have trucks available. Sorry, no paint, lightbulbs, or building materials this year.

Visit VillageofShorewood.org/watersproject for more details.

Logos:
Shorewood Waters Project
Shorewood
SHOREWOOD CONSERVATION COMMITTEE
TROUT UNLIMITED
BIRD CITY WISCONSIN

VILLAGE OF SHOREWOOD – OUTREACH

WORKSHOP



Gardening for Bees, Birds and Butterflies - *Go Native!*



Wednesday, September 19th
7 p.m. to 8:30 pm
Shorewood Library - 3920 N. Murray Ave.

Learn about these winged beauties that visit and beautify our yards. Discover tips to attract these important pollinators and about the native plants they love.

Take home free native plants and seeds to plant and info on native plants that these pollinators adore. You'll also receive a copy of the new, Shorewood's Water Walking Tour Guide that will show you locations in Shorewood using native plants and innovative stormwater management practices -- green infrastructure.

FREE RAIN BARRELS! The MMSD's Fresh Coast Guardians program is giving away FREE rain barrels and instructions on how to install and maintain rain barrels. One FREE rain barrel will be provided per household. Contact us today to reserve your rain barrel to pickup at the workshop. Email Jay at jfeiker@mmsd.com

Brought to you by the Village of Shorewood, Shorewood Waters Project, Conservation Committee, and the MMSD.

 **SHOREWOOD CONSERVATION**  **MMSD**  **FRESH COAST**

VILLAGE OF SHOREWOOD – OUTREACH

**NEIGHBORHOOD
CANVASSING**

NEWSLETTERS

SOCIAL MEDIA



VILLAGE OF SHOREWOOD – IMPACT

- **Green Infrastructure:**
 - 69 Rain Barrels
 - 11 Rain Gardens
 - 16 Soil Amendments
 - 7 StormGUARDens
- **Gallons:**
 - 12,000



LESSONS LEARNED FROM BOTH PROJECTS

- Use broader range of outreach, including social media, fun competitions, neighborhood parties
- Find neighborhood spokesperson(s)
- Make it easy for people to sign up (electronic ideal)
- Provide opportunities for providing and measuring feedback

Questions?

Thank you!

Alyssa B. Schmitt

alyssa@stormwater-solutions-engineering.com

Adrienne Cizek

adrienne@stormwater-solutions-engineering.com

STORMWATER SOLUTIONS ENGINEERING, LLC

