

Municipal Separate Storm Sewer System and Combined Sewer Overflow Control Program – Public Meeting

March 20, 2025



Meeting Agenda

- 1 Introductions
- 2 Storm Sewer System
- 3 Combined Sewer System
- 4 Reducing Your Stormwater Footprint
- 5 Maintaining Green Infrastructure to Reduce Runoff
- 6 Upcoming Projects
- 7 Questions



Introductions: Representing the City of Peoria

1



Stormwater
Program Manager



Combined Sewer
Program Manager

Andrea Klopfenstein, PE
Deputy Director –
City Engineer

Darren Graves
Green Infrastructure
Coordinator

Eric Hansen, PE
Program Manager

Tim Sumner, PE
Project Manager

Krista Tippet
Project Coordinator

Eric Carlson, PE
Senior Engineer





“Wet weather”

The rain and melting snow that our city infrastructure must handle, in the form of runoff and infiltration.

EVERY PART OF PEORIA SUFFERS FROM WET WEATHER PROBLEMS.



Peoria's Sewer Systems



OUR FOCUS



	SANITARY-ONLY SEWERS	STORM-ONLY SEWERS	COMBINED SEWERS
Function	Carry wastewater	Carry rain/snow	Carry rain/snow AND wastewater
Owns/ Maintains	GPSD 450 miles City 64 miles	City 198 Miles (mapped)	City 136 Miles
Funding	User charge- GPSD sewer bill	User charge- City Stormwater Utility	User charge GPSD sewer bill



Storm Sewer System

CMT STORMWATER PROGRAM MANAGER



Storm Sewer System

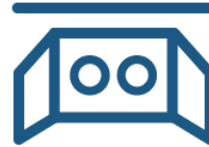
What is stormwater infrastructure? Do I use it?



DITCHES



CREEKS



PIPES &
CULVERTS



PONDS &
LAKES



CURBS &
GUTTERS



INLETS &
MANHOLES



WETLANDS



OCEANS



RAIN
GARDENS



BIOSWALES

Peoria's Stormwater Permit Obligations

- **Clean Water Act (CWA) of 1972 established the NPDES permit program.**
 - Reauthorization of CWA in 1987 required addressing stormwater point discharges through NPDES program.
- **Municipal Separate Storm Sewer System (MSSSS= MS4)**
- **An MS4 is a conveyance or system of conveyances that is:**
 - Owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.;
 - Designed or used to collect or convey stormwater (including storm drains, pipes, ditches, ponds, etc.);
- **All Illinois, small, MS4 communities issued the same permit: ILR40**

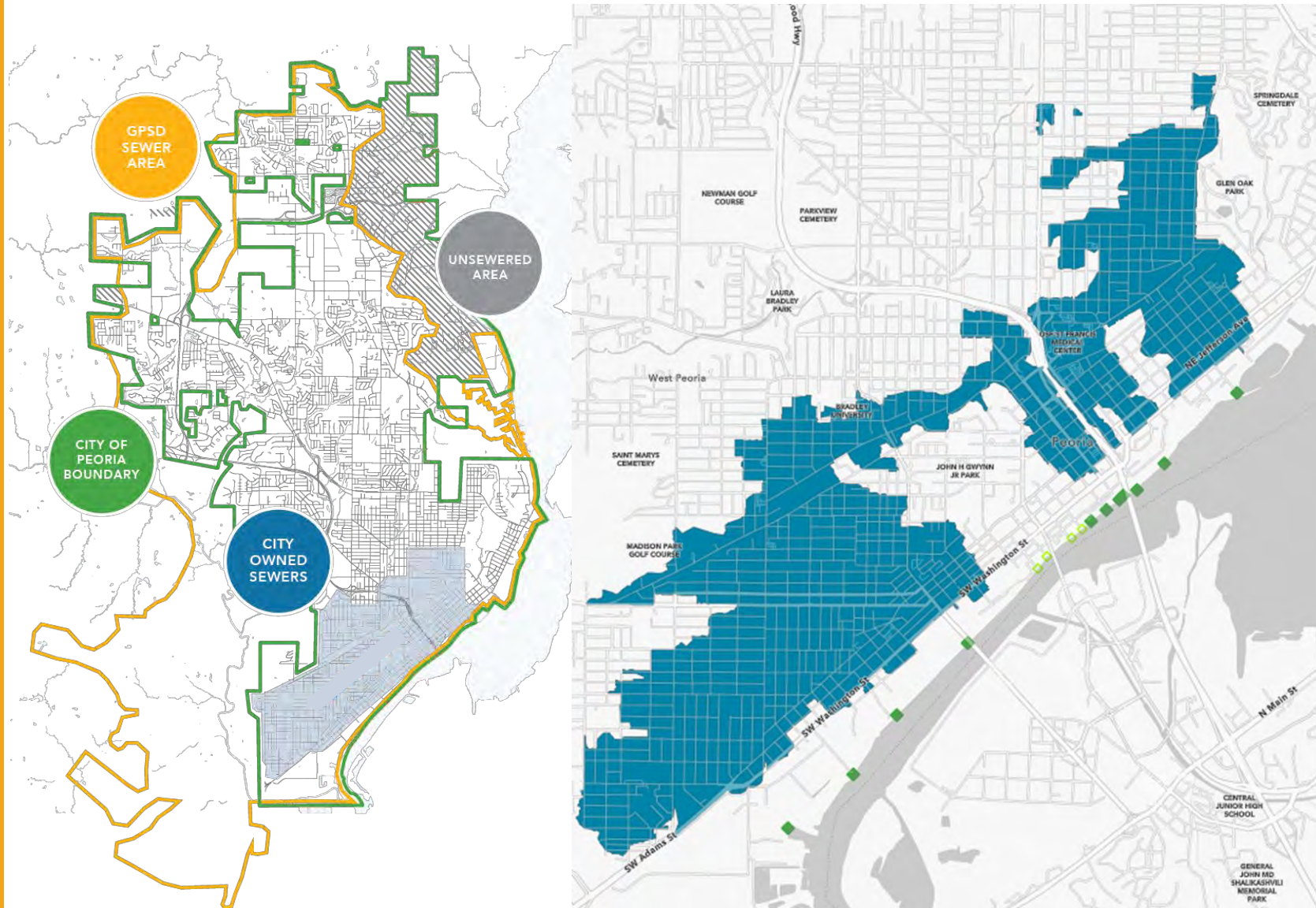


Combined Sewer System

MEAD & HUNT COMBINED SEWER PROGRAM MANAGER



Peoria's Combined Sewer Area





Consent Decree to Reduce CSO Discharges

- Peoria entered into a Consent Decree with U.S. EPA **to reduce CSO discharges** to the Illinois River
- **18-year implementation period**
 - Starting January 2022
 - Ending December 2039



1100 SW Adams

Projects to Achieve CSO Reduction Goals



City has **flexibility to implement a variety of projects**



Green infrastructure is the preferred method of CSO control and will be supplemented with storage

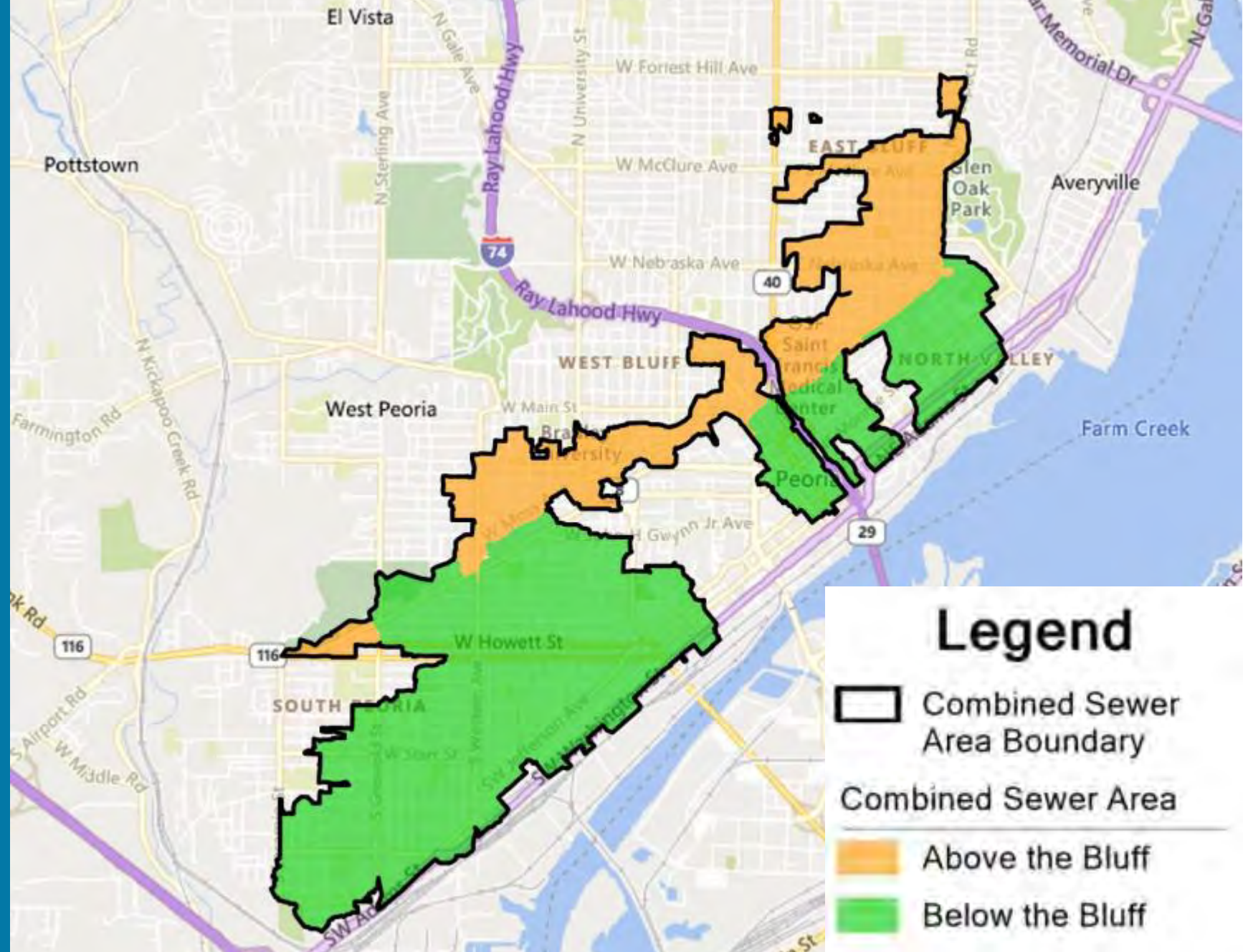


Green Infrastructure (GI)

Best management practices, such as bioretention and permeable pavement, that use an approach to water management that protects, restores, or mimics the natural water cycle

Location of Projects

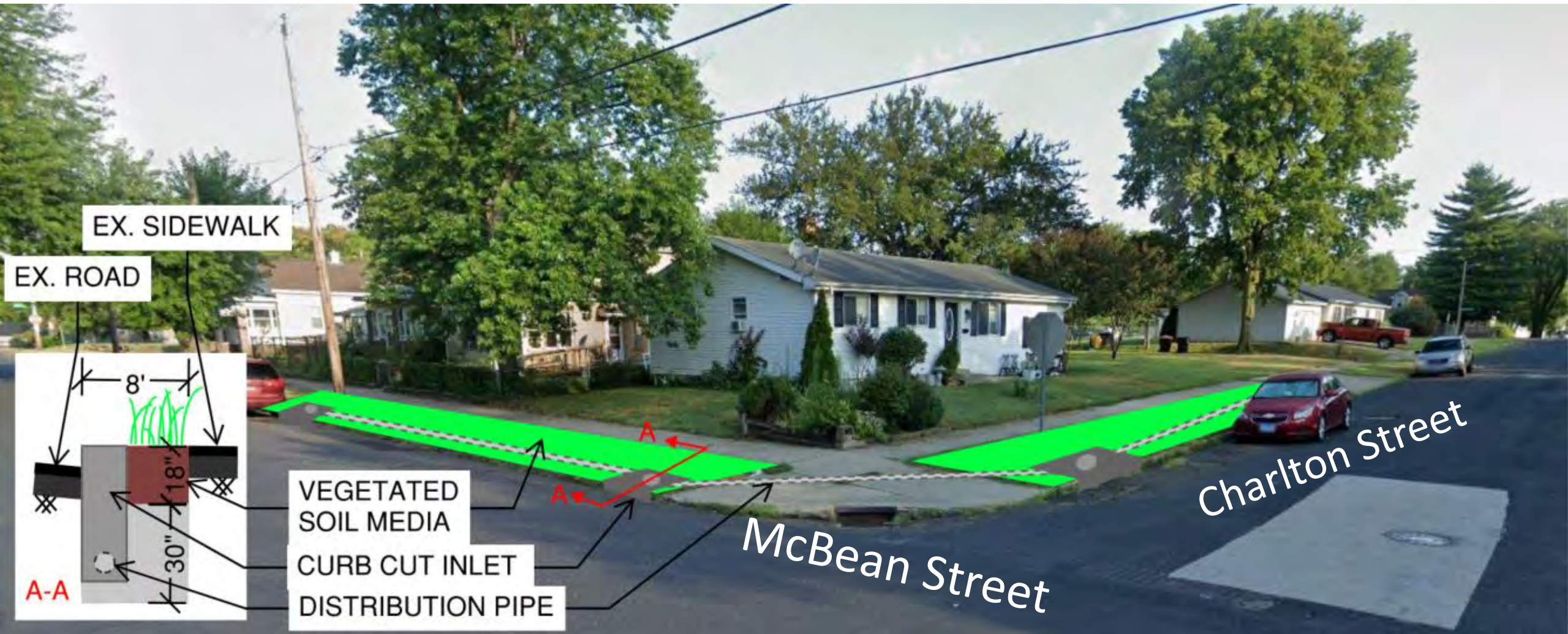
- In the combined sewer area (black outline),
- Below the bluff (green shading), and,
- In the existing right-of-way



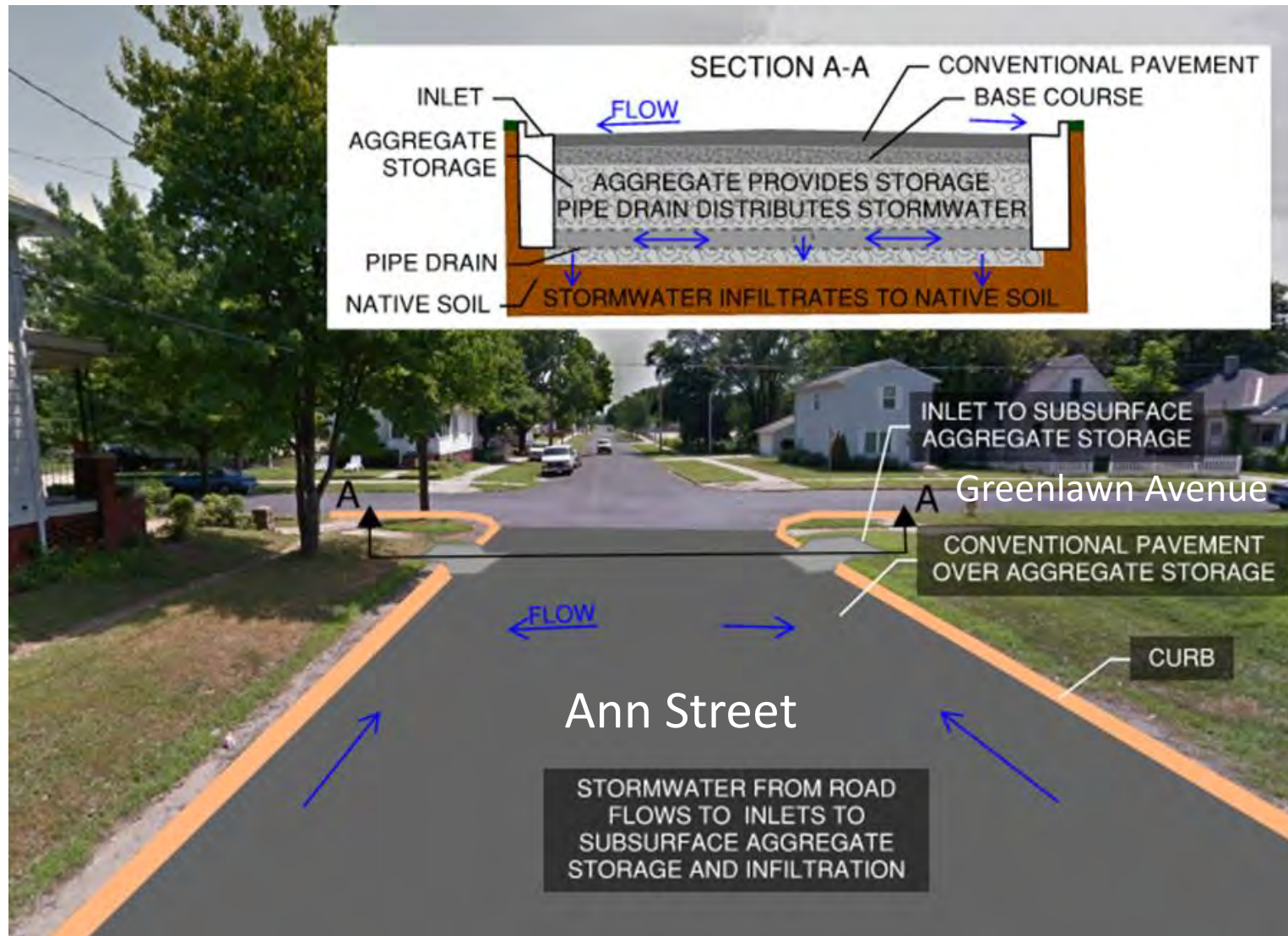
Types of Projects – Permeable Pavement



Types of Projects – Stormwater Bump-ins



Types of Projects – Subsurface Infiltration Below Pavement



Types of Projects – Stormwater Bump-outs



1525 NE Madison Ave



701 Mary Street

Year 1 CSO Control Project

- Green Infrastructure
 - Permeable paver parking lanes (>29,000 SF)
 - Stormwater bump-outs (20)
- Co-Benefits
 - Sidewalks (>9,000 SF)
 - Trees (43)



\$3.8M

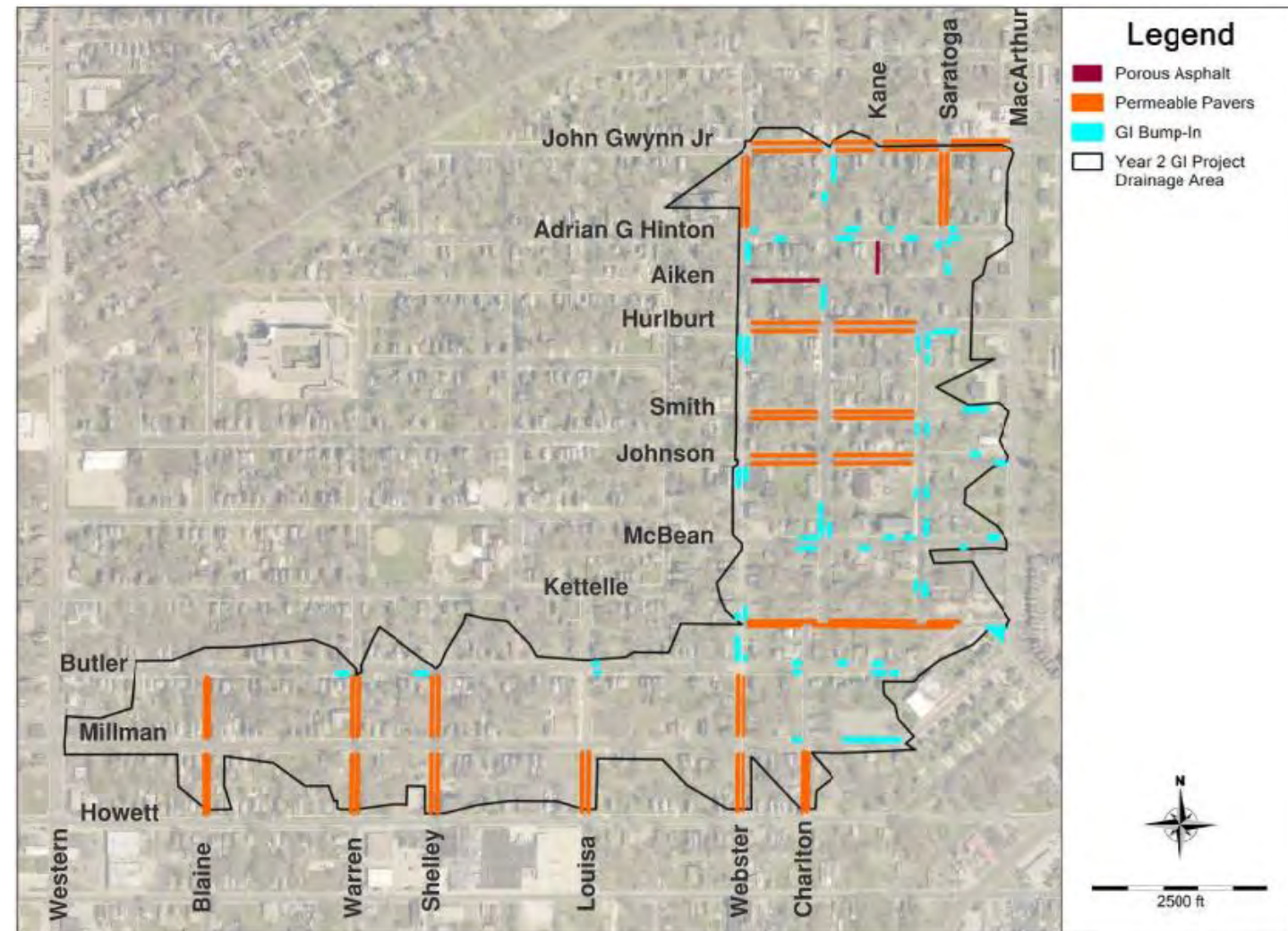
**Construction
Cost**

**Completed
Spring 2023**



Year 2 CSO Control Project

- Green Infrastructure
 - Permeable paver parking lanes (>40,000 SF)
 - Stormwater bump-in (52)
- Co-Benefits
 - Sidewalks (>44,000 SF)
 - ADA compliant ramps (27)



\$7.85M

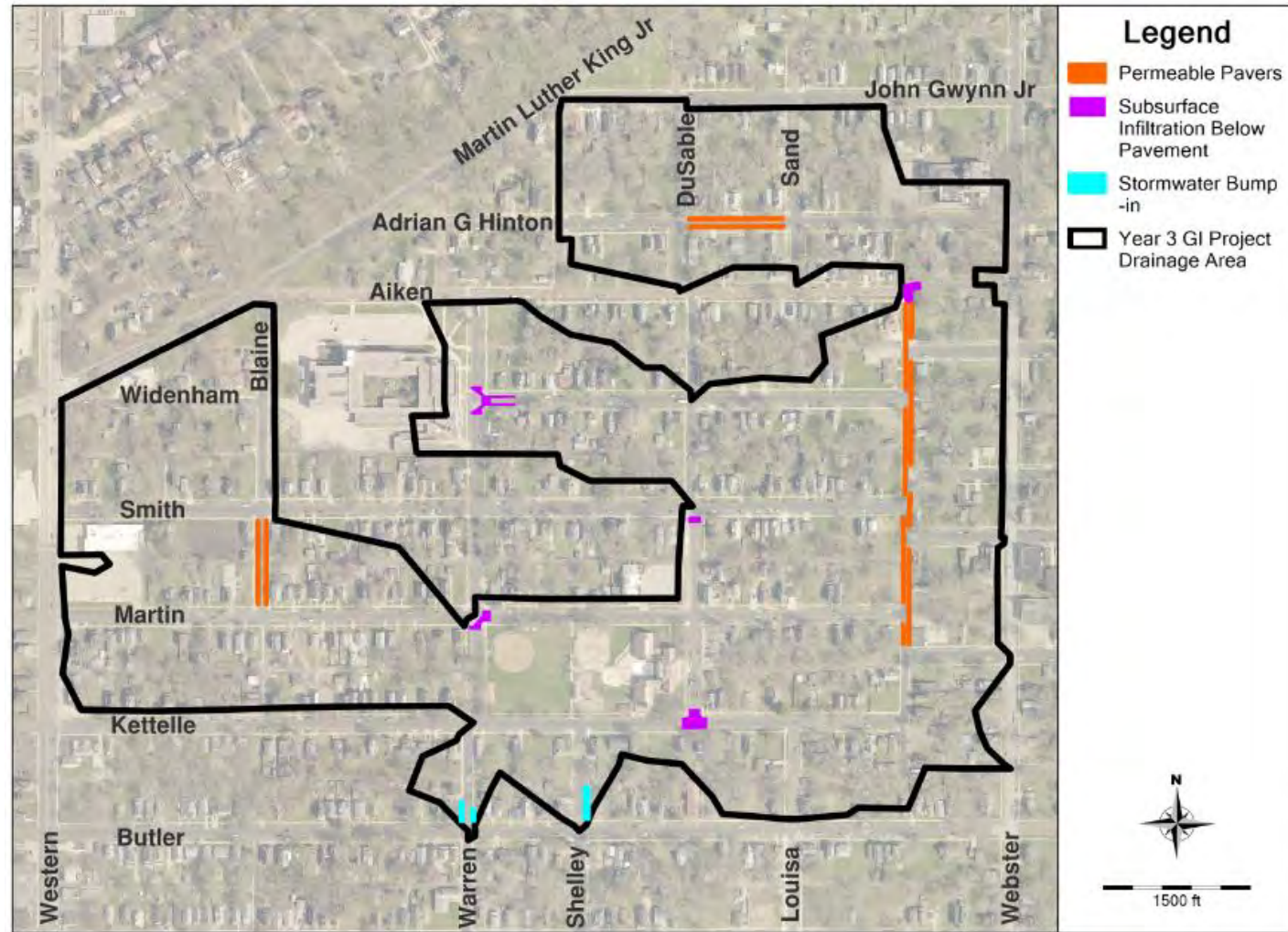
**Construction
Cost**

**Started Spring 2023
Complete Spring 2025**



Year 3 CSO Control Project

- Green Infrastructure
 - Permeable paver area (>8,000 SF)
 - Subsurface infiltration below pavement (5)
 - Stormwater bump-ins (3)
- Co-Benefits
 - Sidewalks (>3/4 mile)
 - ADA compliant ramps (56)



\$5.99M

**Construction
Cost**

**Started Summer 2024
Complete Fall 2025**



Get Involved



Do Your Part

- Some wet weather problems (like replacing aging infrastructure) need to be tackled on a city-wide level.
- There are also plenty of simple things you can do on your own property to help reduce runoff or improve water quality.



2219 W. Garden



Reduce Stormwater Runoff



Capture Rainwater

- Install rain barrels to capture the rainwater from your roof.
- Use it to water your flowers or grass.

Go Permeable

- Choose permeable pavement for your patio or driveway.
- Consider mulch for walkways instead of hard surfaces.

Plant a Rain Garden

- Beautify your property
- Reduce runoff



Rain Gardens

What is a rain garden?

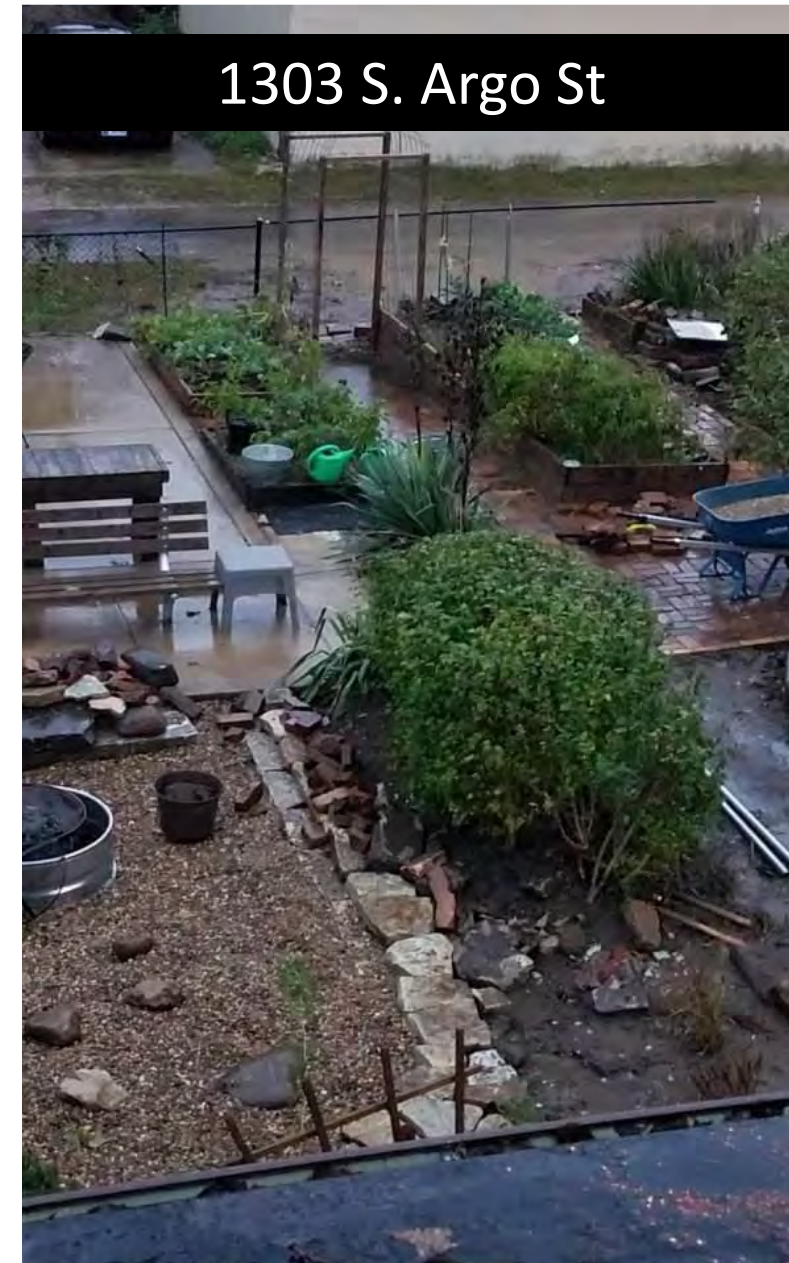
- Rain gardens are shallow depressions planted with perennial plants that are located in an area that collects rainwater.

Why should you plant a rain garden?

- Rain gardens filter pollutants, reduce runoff, and beautify properties.

Where to plant a rain garden?

- Good locations are at the end of downspouts, sump pumps or naturally low areas.
- Locate the rain garden at least 10 feet away from and down slope of a building.



How rain gardens can save you money:

PEORIA CITY TREASURER
419 FULTON
PEORIA, IL 61602
309-494-8600 - WWW.PEORIASTORMWATER.COM

UTILITY BILL
CUSTOMER COPY
Keep this copy for your records

Customer Name: TEST CUSTOMER
Service Address: 1234 TEST ST

Bill Number: 70
Bill Date: 09/01/2018
Account Number - Customer Number: 100177 - 928
Current Billing Due Date: 11/01/2018

Charge Description	Date of Service	Billing Unit (1000 Sq Ft)	Amount
STORM WATER	06/01/2018 - 06/30/2018	2.8	\$23.40

Sample Calculation
Impervious Area + 1000 x rate x months = charge
Go to www.stormwaterpeoria.com for more information and to pay your bill online.

Total Current Billing	\$23.40
Previous Balance	0.00
Adjustments	0.00
Less Payments Received	0.00
Total Due	\$23.40

After 11/01/2018, a 10% late fee applies
Total amount due will be \$25.74

✂ Detach and return the portion below with your payment ✂

UTILITY BILL
REMIT PORTION
Please write your Account Number on your check and enclose this portion of bill with your payment.

Service Address	Bill Number	Account Number - Customer Number	Due Date	Amount Due
1234 TEST ST	70	100177 - 928	11/01/2018	\$23.40

☐ Check here for change of billing address only and note changes below

TEST CUSTOMER
1234 TEST ST
PEORIA, IL 123456

CITY OF PEORIA
PO BOX 6390
PEORIA, IL 61601

00006042016000000070300000378000

Green infrastructure grant

- Build green infrastructure that captures runoff from impervious areas.

Volume reduction credit

- Credits are available for activities that reduce the total volume of runoff from a property.



Redirect Downspouts

Redirected to grass

- No Grants Offered

Drain to Green Infrastructure

- Grants offered to build green infrastructure
- Green Infrastructure may qualify for credits

1034 W Belle Haven Lane



Maintaining Green Infrastructure to Reduce Stormwater Runoff

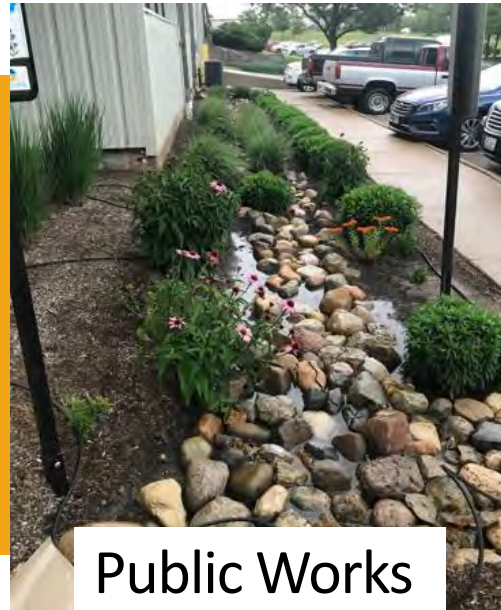


Maintaining Rain Gardens and Permeable Paver Surfaces

- Mulch, bag, or redirect lawn clippings away from GI
- Remove invasive species and weeds
- Prune and remove overgrown vegetation
- Ensure plants have adequate water and sunlight
- Remove sediment and debris from paver surfaces



1301 SW Adams



Public Works



West End Manor Parkway

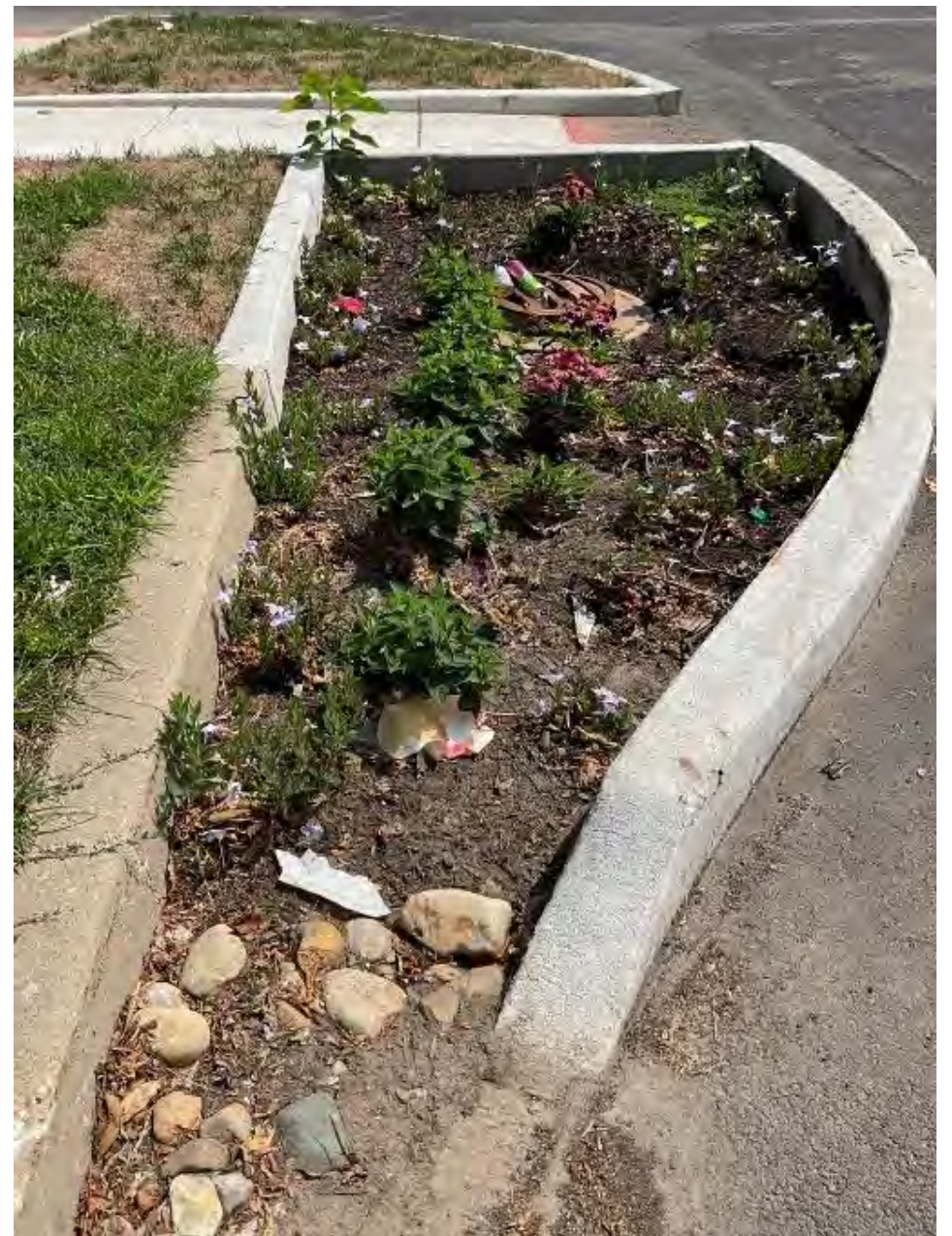
Debris Impacts GI Effectiveness

- Effectiveness of GI is reduced by accumulation of debris such as grass clippings and litter
- Grass clippings can clog permeable pavement, GI inlets in stormwater bump-outs, and subsurface infiltration installations



Debris Impacts GI Effectiveness

- Litter in bump-outs reduces the effectiveness and detracts from landscape enhancements



Ways You Can Help

Manage Yard Waste

- Sweep grass clippings, fertilizer, and soil back onto your lawn.
- Mulch, compost, or use City landscape waste collection service to dispose of leaves instead of raking them into the street.
- Prevent leaves from washing into storm drains or from being dumped into ravines.

Pick Up Litter

- Dispose of litter and trash properly and clean up after pets.

Trash Disposal

- Use designated trash receptacles.



Ways You Can Help

Fertilizers and Pesticides

- Use the minimum amounts of fertilizers and pesticides needed.
- Read instructions and follow the directions on how to use.
- Do not place if rain is in the forecast.
- Use the least toxic materials possible.

Vegetate bare spots in your yard

- Bare spots are susceptible to erosion.



Ways You Can Help



Avoid placing natural materials on a slope or in a ravine

- Yard waste, leaves, sticks, and other debris placed on the slopes can be washed into the creek/ravine and clog the channel or block the downstream culverts.
- Piles of natural materials kills the ground cover underneath and prevents growth of deep-rooted plants that would protect the slope and control erosion.

Storm drains

- Never dump anything into a storm drain.



Ways You Can Help

Vehicle Washing

- When you wash your vehicles be sure that the area does not drain into the street or the storm water system or take it to a commercial facility that has the correct infrastructure.

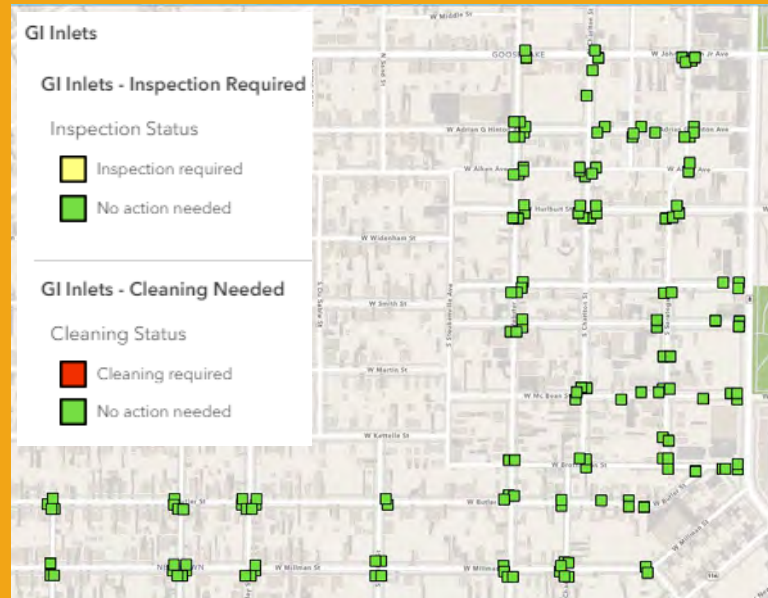
Vehicles

- Check vehicles for leaks
- Recycle used oil
- Properly dispose of used tires



City Activities to Maintain GI

- Street sweeping twice a month
- Regular, proactive inspections
- Weeding, pruning, and planting of vegetated GI
- PeoriaCorps assisting with vegetated GI upkeep



City Activities to Maintain GI

- Conduct performance testing of GI surface and subsurface
- Inspect and maintain GI in the combined sewer area after each 1-inch rainfall



Upcoming Projects and Next Steps



Peoria Stormwater Projects - Completed



Kickapoo Terrace
Drainage Improvement



MacArthur Moss to Bridge -
Roadway and Drainage
Improvement



Ronald Road Storm
Sewer Improvement



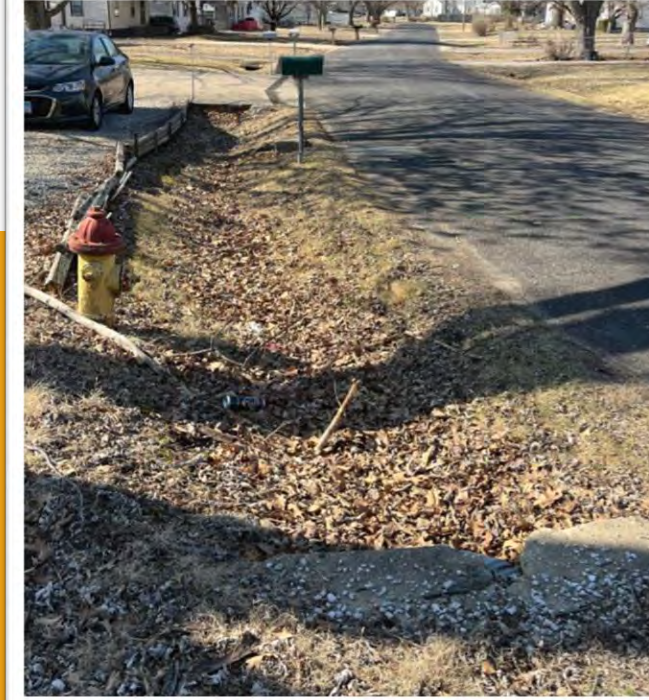
Peoria Stormwater Projects - Upcoming



Deerbrook Drive
Reconstruction & Drainage
Improvements



Moss Avenue Reconstruction
& Drainage Improvements



El Vista & Golden
Acres – Drainage Ditch
Improvements



Peoria Stormwater Projects - Upcoming



Stone Creek
Stabilization at
Wilhem Bridge



Tributary A Culvert
Improvements - Gift
to MacQueen



MacArthur Ave – Roadway and
Drainage Improvements



Peoria Stormwater Projects - Upcoming



Sheridan Rd –
Drainage
Improvement



Drainage Repair Annual
Contract

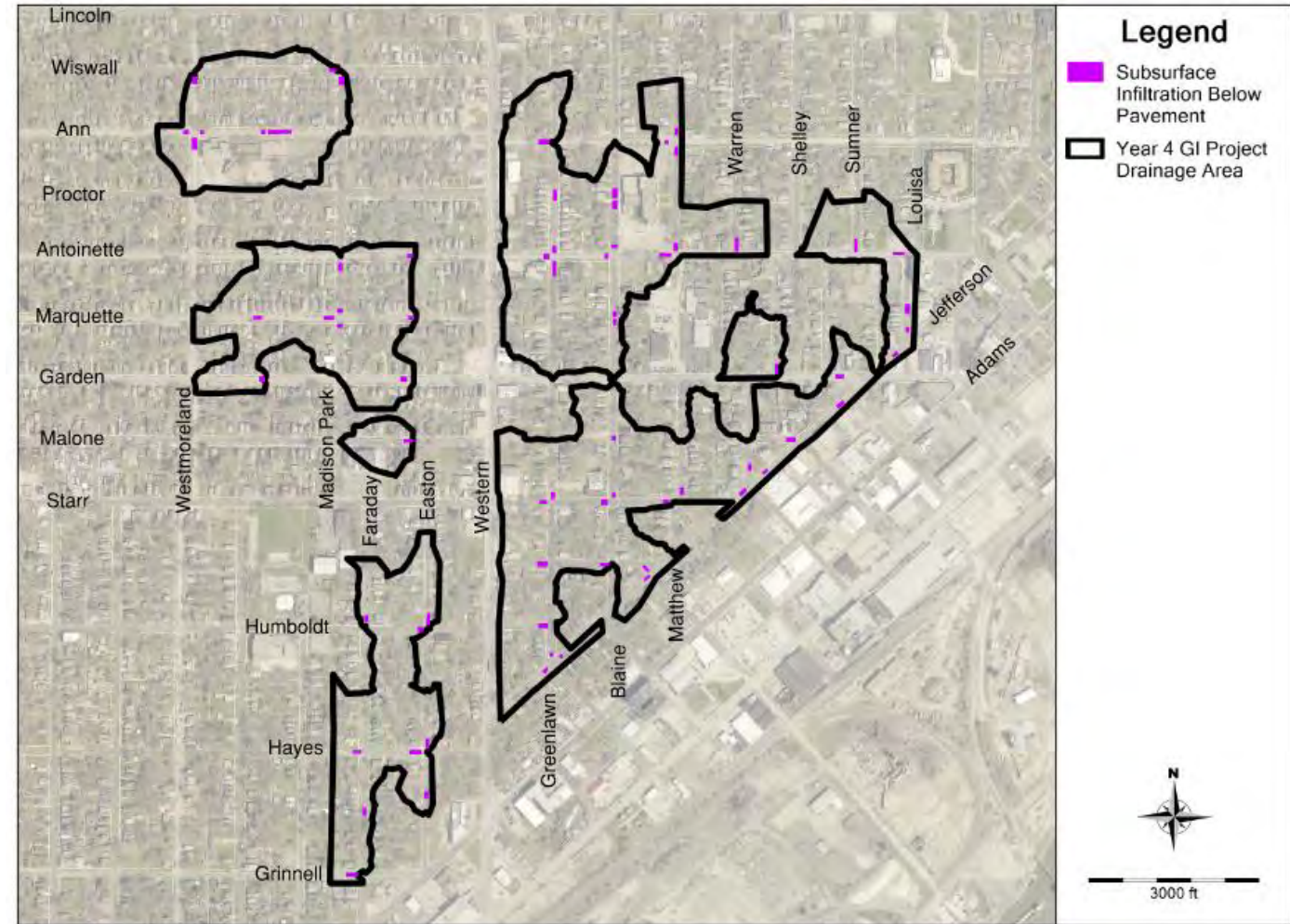


Storm sewer lining and
repair



Year 4 CSO Control Project

- Green Infrastructure
 - Subsurface infiltration facilities (71)
- Co-Benefits
 - Sidewalks (>1/3 mile)
 - ADA compliant ramps (155)



\$8.64M Construction Cost

Start Summer 2025
Complete Summer 2027



CSO Control Next Steps

01

Summer 2025
Year 4 Project
Construction
Starts

02

Fall 2025
Year 3 Project
Construction
Complete

03

Jan – Dec 2026
Evaluate for Interim
Performance
Milestone #1 - 20%
CSO Volume
Reduction





Learn More at:



Peoriagov.org/881/Credits-and-Grants

PeoriaCSO.com

Andrea Klopfenstein, P.E.

Deputy Director —

City Engineer

309.494.8800

aklopfenstein@peoriagov.org

City of Peoria Public Works

309.494.8800

publicworks@peoriagov.org





Questions

Thank you for your time.