



Improving Water Quality Through Green Infrastructure in the Illinois River Watershed

Grant #15-800

Project Period: Oct. 1, 2015 – June 30, 2018

2017 Nonpoint Source Pollution Stakeholder & Project Review Meeting



Project Deliverables:

- Implement 15 green infrastructure projects in public/quasi-public locations within the Illinois River Watershed
- Host 3 annual Green Infrastructure Academies
- Grantees provide a 25% match, may be in-kind hours

Green Infrastructure for Water Quality



PROTECTING OUR WATERWAYS

Capture the Rain through Green Infrastructure



What is a Watershed?

A watershed is an area of land that drains to a waterway, much like a bathtub drains to one point.

The Illinois River watershed is a large one, including 1.1 million acres of land in Arkansas and Oklahoma, that drains to the Illinois River. The Illinois River starts in Hopey, Arkansas and travels north, and then west into Oklahoma, where it eventually reaches Lake Tenkiller. It then flows into the Arkansas River, then to the mighty Mississippi and down to the Gulf of Mexico!

Illinois River Watershed Partnership

The Illinois River Watershed Partnership, formed in 2002, is a non-profit organization with the mission to improve the longevity of the Illinois River through public education and community outreach, water quality monitoring, and the implementation of conservation and restoration projects throughout the watershed.

The Partnership is represented by six categories of stakeholders: Agriculture, Business, Conservation, Communities, Government, and the Technical/Research/Education Sector.

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What is Green Infrastructure?

Green Infrastructure is an approach to watershed management that uses vegetation, soils, and natural processes to manage rain water where it falls. Green infrastructure can be used at a wide range of landscape scales in place of, or in addition to, more traditional runoff control elements to support the principles of Low Impact Development (LID).

What are the Benefits of Green Infrastructure?

Green Infrastructure can:

- Reduce non-point source pollution to improve water quality.
- Slow down runoff into nearby waterways.
- Help downstream property and prevent streambank erosion.
- Control flooding and help recharge groundwater.
- Attract wildlife and enhance biodiversity.

Green Infrastructure also addresses the negative impacts of higher water temperatures from streets, roof tops and parking lots, which are harmful to the health and reproduction of aquatic life in streams.

Funding for the Illinois River Watershed Partnership Green Infrastructure Program Grant provided by US Environmental Protection Agency Section 319 Non-Point Source Management Program Funding and Arkansas Natural Resource Commission Non-Point Source Programs. Thanks to our partners and sponsors for helping to install Green Infrastructure to improve and protect the Illinois River Watershed.



You can do many things to help protect and improve water quality! Reducing fertilizers and pesticides on your property, planting trees and plants along streambanks, volunteering or leading a creek clean-up in your community, are some examples. You can also help in your landscapes by planting native plants!

Native plants help to soak in water into their deep root systems and are beneficial to wildlife and pollinators. Native plants that are adapted to our region need less water and are easier to maintain.

Here are a few examples of native plants!



Prairie Dropseed Grass



Butterfly Milkweed



Arkansas Bluestem



Serviceberry



Aromatic Sumac



Black-eyed Susan

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15 Demonstration Projects:

Porous Pavers/Pathways

Bioswales

Rain Gardens

Water Harvesting



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Learn how we can collectively improve and manage water where it falls using Green Infrastructure.

Apply for a grant with Illinois River Watershed Partnership to install these tools at your location.

The Illinois River Watershed Partnership is a non-profit group who seeks to improve the integrity of the Illinois River and its tributaries. Funding for green infrastructure provided by US EPA 319 funds and Arkansas Natural Resources Commission Non-point Source Program.

Illinois River Watershed Partnership
Green Infrastructure
WORKSHOP
Thursday, June 15
9 am - 12 pm (check-in at 8:30 am)
IRWP Watershed Learning Center
221 S. Main St.
Cave Springs, AR
Please RSVP at Stephanie@irwp.org



www.irwp.org
479-215-6623



June 2017
15 Participants at GI Workshop
IRWP Watershed Learning Center
Cave Springs, AR

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George Jr. High
September 2017

Completed projects to-date:

First United Presbyterian Church, Fayetteville

Northwest Arkansas Land Trust, Fayetteville

JBU Campus, Siloam Springs

Mathias Elementary, Rogers

George Junior High, Springdale

Butterfield Trail Elementary, Fayetteville

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First United Presbyterian Church August 2016

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FUPC 8 months after planting



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NWA Land Trust September 2016



9 months

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John Brown University November 2016

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JBU 8 months after planting

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Mathias Elementary March 2017



1 month



5 months

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George Jr. High September 2017

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Butterfield Trail Elementary
September 2017

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Botanical Garden of the Ozarks

- Projects approved/in-progress:**
- Don Tyson School of Innovation, Springdale
 - Siloam Springs Parks Dept., Siloam Springs
 - Har-ber High School + Hellstern, Springdale
 - JO Kelly, Springdale
 - Botanical Garden of the Ozarks, Fayetteville
 - Benton County Extension, Bentonville
 - Heritage High School, Rogers
 - City of Lowell, Lowell
 - Gregory Park, Fayetteville

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Botanical Garden of the Ozarks
Almost finished!

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Cost Breakdown:

	Project Cost	Pervious Area (sqft)	Pervious Cost per sqft	Impervious Area (sqft)	Impervious Cost per sqft
First United Pres. Church	\$4608.13	302	\$15.26	3217	\$1.43
NWA Land Trust	\$5619.86	670	\$8.39	13525	\$0.42
John Brown University	\$2035.13	1646	\$1.24	7959	\$0.26
Mathias Elementary	\$6477.66	1090	\$5.94	2271	\$2.85
Averages:	\$4685.20	927	\$7.71	6743	\$1.24

Lessons Learned:

- Form a long term maintenance plan
- Work with someone experienced for design creation
- Get work bids EARLY, and leave room in your budget for unexpected costs
- Be clear with planting instructions before starting to plant
- Place plants where they need to be planted before volunteers arrive



Thank you!

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