Improving Water Quality Through Green Infrastructure in the Illinois River Watershed

Grant #15-800

Project Period: Oct. 1, 2015 – June 30, 2018
Arkansas, Oklahoma
Cherokee Nation
20+ cities, 7 Counties
500,000 + Stakeholders

1.1 million acres
1,700 square miles
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 Green Infrastructure?
Green Infrastructure is an approach to watershed management that uses vegetation, soils, and natural processes to manage rainwater 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.

Plant native

You can do many things to help protect and improve water quality! Fertilizing lawns and properties on your property, planting trees and plants using streambanks, vegetation or leading a creek clean-up in your community, are some examples. You can also help 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!

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15 Demonstration Projects:

- Porous Pavers/Pathways
- Bioswales
- Rain Gardens
- Water Harvesting
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June 2017
15 Participants at GI Workshop
IRWP Watershed Learning Center
Cave Springs, AR

Please RSVP at Stephanie@irwp.org

www.irwp.org
479-215-6623

Green Infrastructure in the Illinois River Watershed Partnership

Workshop Details
Thursday, June 15
9 am - 12 pm (check-in at 8:30 am)
IRWP Watershed Learning Center
221 S. Main St.
Cave Springs, AR

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.
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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NWA Land Trust September 2016

9 months
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JBU 8 months after planting
Green Infrastructure in the Illinois River Watershed
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Mathias Elementary March 2017

1 month

5 months
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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!
## Cost Breakdown:

<table>
<thead>
<tr>
<th>Project</th>
<th>Project Cost</th>
<th>Pervious Area (sqft)</th>
<th>Pervious Cost per sqft</th>
<th>Impervious Area (sqft)</th>
<th>Impervious Cost per sqft</th>
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<td><strong>Averages:</strong></td>
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<td><strong>$7.71</strong></td>
<td><strong>6743</strong></td>
<td><strong>$1.24</strong></td>
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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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