



13-1400 Lake Fayetteville Watershed Outreach & Education

ANRC Project Review September 24, 2015

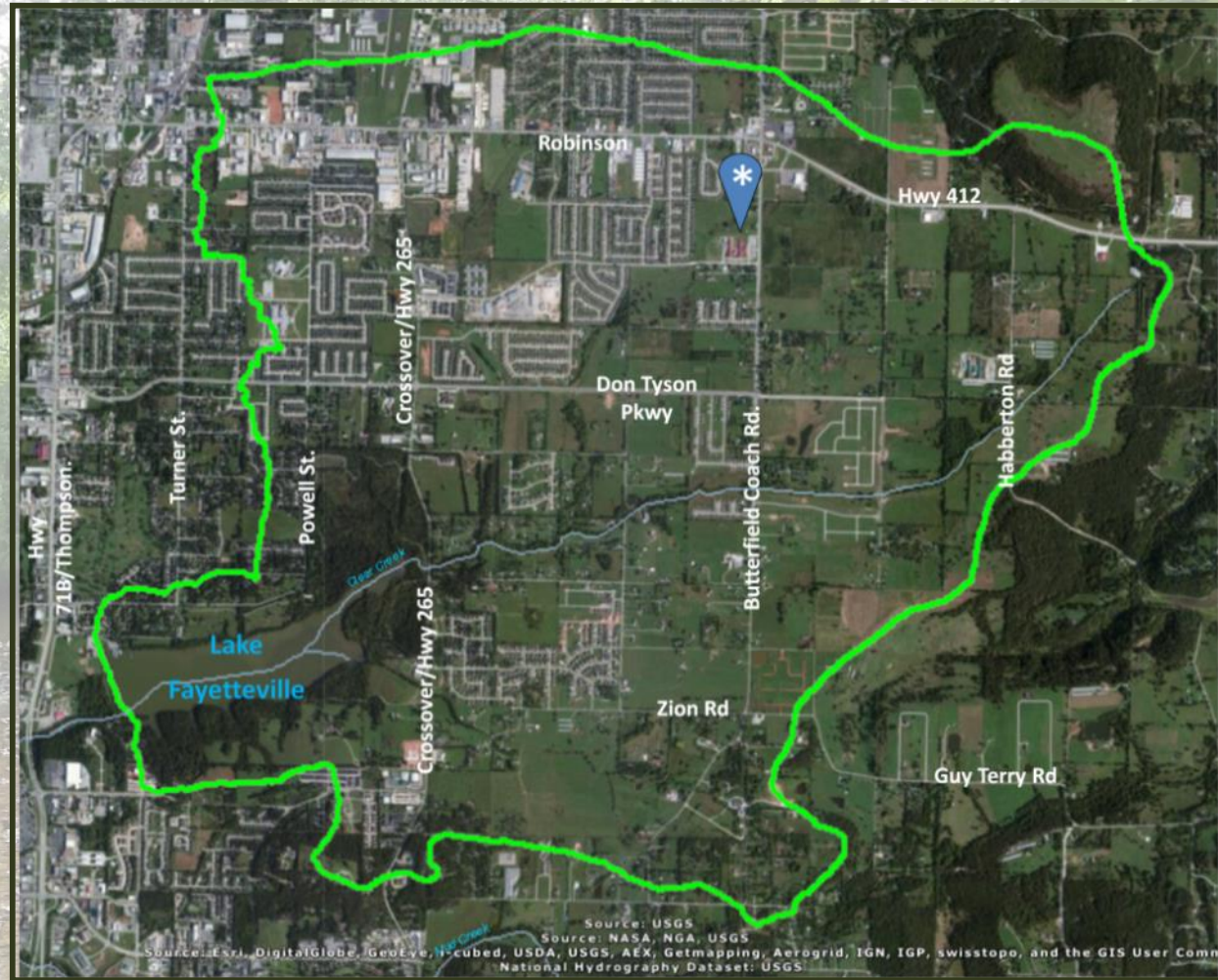
Colin G. Massey
University of Arkansas
Division of Agriculture
Cooperative Extension Service
Washington County

Project Background

- Began September 2013
- Promote pollution prevention BMPs, watershed awareness, and community buy-in with stakeholders and residents
- Capacity building within Lake Fayetteville Watershed Partnership

Lake Fayetteville Watershed

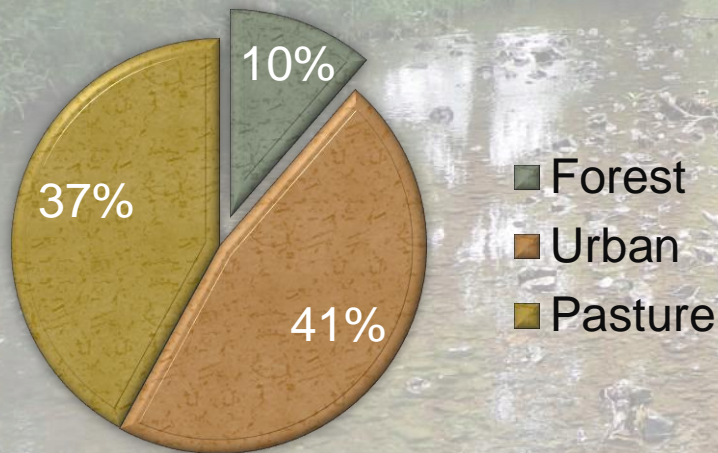
- Watershed is just over 9 square miles
 - 8,000 to 9,000 people live in this watershed
 - Highly urbanized
- 196 acres (W/A=30.7)
- Clear Creek & Hylton Branch drain into lake



History



Current Land Distribution



What was once **90%** Forest

- Built as backup water supply for Fayetteville
- Drains into Clear Creek and flows to the Illinois River
- Primary contact recreation is not permitted
- **Legacy Phosphorus**
 - Land converted to pasture
 - Soils with 80 to 250 ppm P from broiler litter applications*
 - Rapid urbanization

Pollutant Concerns

- ≈ Nutrients
- ≈ Sediment
- ≈ Bacteria
- ≈ Household waste
- ≈ Automotive fluids
- ≈ Trash
- ≈ Septic leaks



Major Tasks

- Identify & engage watershed landowners to increase knowledge and understanding of BMPs through public outreach, education, and property assessments
- Update outreach materials & capacity building with Lake Fayetteville Watershed Partnership
- 10 Pollution Prevention Video Podcasts
- BMP workshops



Outreach & BMP Activities

2014 Fall Lake Fayetteville Cleanup



2014 Rain Barrel Workshop @ Botanical Gardens of the Ozarks



721 students educated about & within watershed



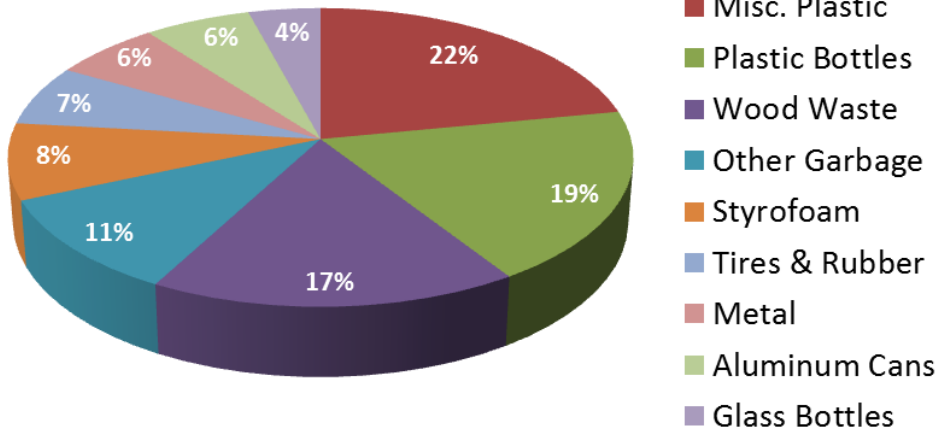
Fay. Farmer's Market Booths

2015 Riparian Planting with LFWP & USGBC



Lake Cleanups

% Volume of Select Waste Lake Fayetteville Fall 2014



Fayetteville Solid Waste & Recycling



Nearly 3 tons of litter has been removed from Lake Fayetteville, and **626** stakeholders have contributed **\$43,711.82** worth of volunteer hours.

Event	# Volunteers	Litter Removed
Fall 2013	110	1,230 lbs
Spring 2014	74	1,700 lbs
Fall 2014	184	1,500 lbs
Spring 2015	254	1,340 lbs

Total volunteer contributions and In-Kind Match:
\$84,279.32



Riparian Efforts

8 riparian events (shore-area invasive removal, native plant restoration)



LFWP

1. Invasive removal
2. Native shrubs planted in riparian area behind Study Center
3. Native plant give-away for residents

Partnered with **Fayetteville Parks and Recreation** and **USGBC-NWA**, & **UA Honors College** for bi-monthly removal of invasive species at Veteran's Park & special project at North Shore Disc Golf Course with **NWA Disc Golf**



Lake Fayetteville Northshore



Fayetteville Parks & Rec Erosion Control



Rain Barrel Workshops

83 rain barrels constructed at workshops in the Lake Fayetteville watershed



Capacity Building for Lake Fayetteville Watershed Partnership



LFWP Winter Program provided inroad to with city leaders about management options for Lake Fayetteville which continues to be pursued

Footprint of LFWP has expanded & momentum continues to build

BLUE LETTER

The University of Arkansas Cooperative Extension Service Monthly Letter No. 3757 • May 2015

FROM THE DIRECTOR

Arkansas delegations make a big impression in Washington

Arkansas had a chance to double-team the state's Congressional offices last month, sharing key points about the strength of Extension's programs. Sherri Sanders, Jerri Lephew, Lisa Washburn, Amy Simpson and Keith Cleek were in the nation's capitol for PILD, the Public Issues Leadership Workshop held by the Joint Council of Extension Professionals. At the same time, a group of 4-H members were in D.C. as part of the National 4-H Conference. Members of both groups met with Congressional aides, each having a chance to make specific points about extension's programs.

The group emphasized to the Congressional staff the need for continued support of Smith-Lever funding and in return, heard messages of support.

The adults had breakfast with aides and later, the adults and youth, in various combinations were able to have photos taken with Reps. Rick Crawford and Steve Womack and Sens. John Boozman and Tom Cotton. The extension reps, along with chaperones Brian See and Leadra Martin, then hosted lunch with aides from Boozman's and Cotton's office. Both aides heard about each program area and county programs.

Lephew summed up the message the group delivered to our elected representatives in the U.S. House and Senate: "Extension is a big deal." We appreciate the time spent by our agents and youthful advocates for making sure Extension remains a big deal.

- Tony Windham

(Front) John Dillard; (second row, left to right) Kristin Rouse, Travis Clark, Heather Jackson, Alexandra Hunter; (third row, left to right) Lisa Washburn, Brian See, Keith Cleek, Jerri Lephew, Senator Tom Cotton, Sherri Sanders, Amy Simpson and Leadra Martin.

Inside:

- Gerontological society recognizes Extension employees
- White County WHEP Team brings home 1st and 2nd
- 4-H Center upgrades lodging, menu offerings
- Faulkner County 4-H takes center stage at performing arts event
- Benefits Corner
- Grants and contracts
- Personnel changes

Educational partner is finalist for ENVY award

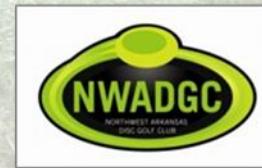
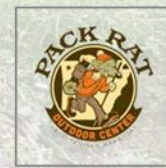
The Lake Fayetteville Environmental Science Center, a water quality educational partner with the Cooperative Extension Service, was a finalist for this year's ENVY Award.

The ENVY Award trophy was established in 2005 by the Arkansas Department of Environmental Quality to recognize a major contribution by an individual or organization for efforts to enhance and protect Arkansas' natural resources. The center, formerly known as the Aquatic Center, has been a cooperative effort between the Fayetteville and Springdale School Districts since 1974.

DR. TONY WINDHAM
Associate Vice President for
Agriculture - Extension and
Director, Cooperative Extension Service

Cont. on page 2

Partnerships



Outreach Media

7 Issues
2,958 residents
370 electronic

@CleanWaterNWA





Vol. II, No. 1
October 2014

We Need Your Help on October 18th

Why am I getting this?

You are receiving this newsletter because you live, work, or own property in the area that drains into Lake Fayetteville. You are a watershed stakeholder!

Tú estás recibiendo esta carta porque tu vives, trabajas, o tienes una propiedad en la cuenca del Lago Fayetteville. Por favor contáctame Colin Massey (colmassey@uaex.edu) para una copia de esta carta en español. Nosotros también proveemos consulta GARDIO en la casa con respeto a la calidad del agua, muestras de suelos de su jardín y del césped, inundaciones, o cualquier otro problema de agricultura.

The Lake Fayetteville Watershed is ten square miles of Fayetteville, Springdale, and rural areas of Washington County that drain into Lake Fayetteville. Bacteria, nutrients, and sediment limit Lake Fayetteville's recreational uses. Stormwater draining from urban areas, carrying automotive fluids, pet waste and other pollutants, is not treated and goes directly into creeks and streams. Our goal is to work with all of you to protect this water resource.

Volunteer with your family & friends on October 18, 2014 to remove litter from Lake Fayetteville. Contact colmassey@uaex.edu for more details, or visit www.lfwp.org to view the event flyer.

Join the Lake Fayetteville Watershed Partnership and many local organizations and sponsors for the Lake Fayetteville Fall Cleanup from **9 am to noon**. Lunch provided and door prizes to follow.

What's In This Issue?

- p.2 Project Highlights from Year One
- p.3 What's Coming Up in Year Two

What happened in the images to the right?

Unfortunately, something got dumped down this storm drain and the substance started to react and foam as it neared the stream it empties into. They probably didn't know storm drains flow directly into creeks untreated.

Only rainwater should ever go down a storm drain

Did you know we send an electronic version of this newsletter? Email colmassey@uaex.edu, or call 479.444.1755 to conserve resources. If you no longer wish to receive this publication, we will gladly remove your address.

Pg. 2

own, but
n lead to
tice we
People I
So take
low for

Grasscycling is the natural recycling of grass clippings by leaving them on the lawn after mowing. Grasscycling saves time, money, effort and, when done properly, is good for the environment and health of the grass.

- Saves time by eliminating bagging
- Returns nutrients to the soil
- Promotes water conservation
- Grass clippings do not increase thatch
- The "Don't Bag It Lawn Care Plan" found that after six months of grasscycling, homeowners reduced time spent doing yard work by an average of seven hours (Texas A&M, 1996).
- Clippings left on the lawn saved about 25% of annual fertilizer costs. "One ton of fresh clippings contains approximately 15 pounds of nitrogen, 2 pounds of phosphorous and 10 pounds of potassium (Cornell University Cooperative Extension, 2012).
- Grass clippings are 75% to 85% water. When you mow regularly, clippings quickly decompose and release moisture and nutrients (North Carolina Cooperative Extension, 2006).
- Numerous research studies on zoysiagrass and bermudagrass concluded thatch does not result from clippings but from excessive fertilization or incorrect watering (University of Arkansas Cooperative Extension, 2009).

We Need Your Help!



Lake Cleanup This Saturday

9am at the Environmental Study Center, Marina, or Veteran's Park

www.lfwp.org





Clean Water Podcast Series

Riparian Buffer Functions and Value

EPISODE 4

UofA

**DIVISION OF AGRICULTURE
RESEARCH & EXTENSION**

University of Arkansas System

EPISODES

Watershed Stakeholders & Partnerships	Trash Management To Prevent Litter
Best Management Practices	Septic Maintenance Prevents Pollution
Homemade Cleaning Solutions	Proper Auto Care Protects Water Quality
Riparian Buffer Functions & Values	Lawn Watering and Pool Drainage
Fats, Oils, And Grease Management	Proper Fertilizer Use

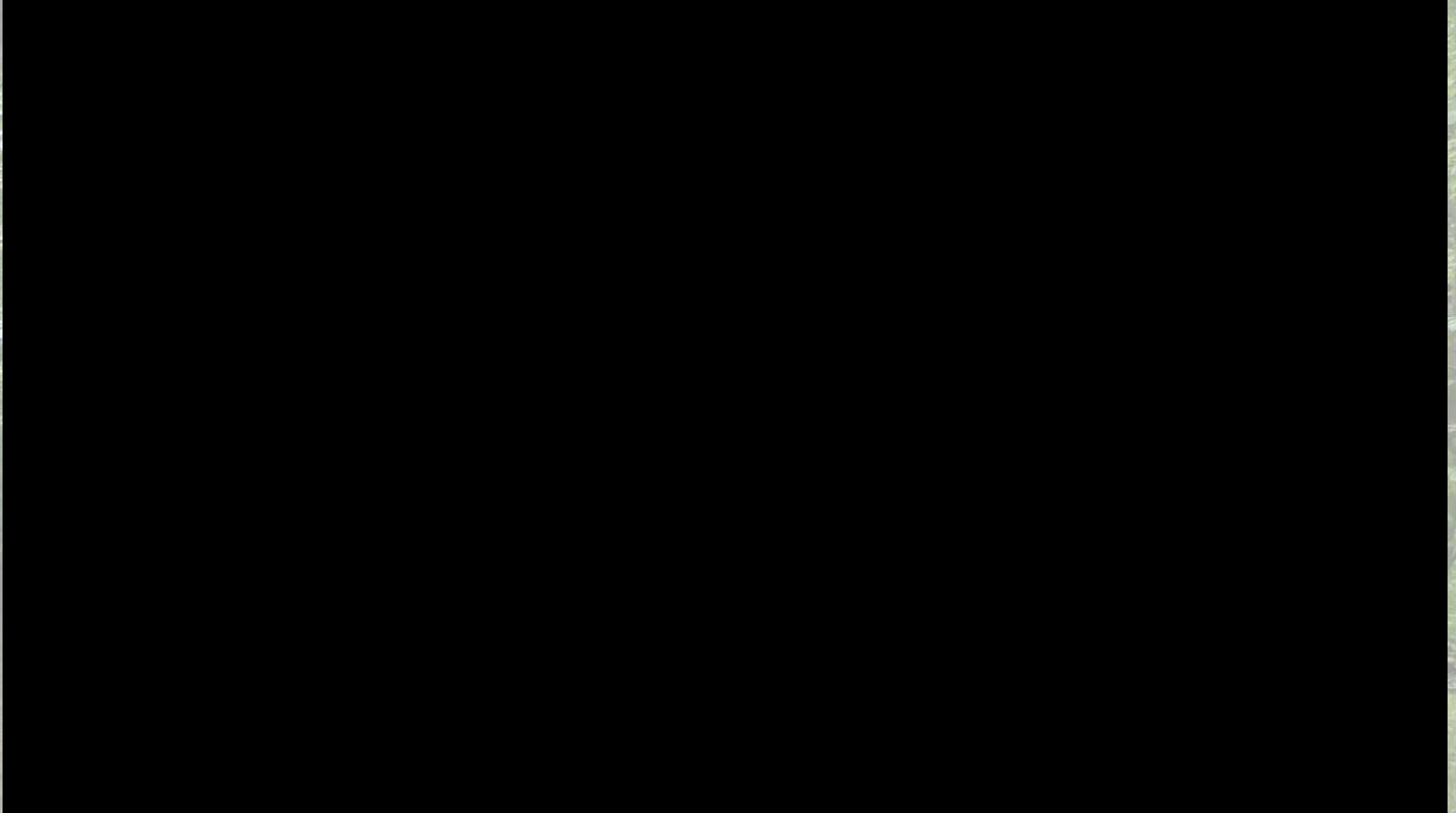
You Tube

CleanWater@UAEX

@CleanWaterNWA



Clean Water Podcast Series – Yard Waste Short





Challenges

- Urban residential outreach is difficult
- Measuring and evaluating behavioral change
- **Low response to printed newsletters**
- Consistency/changes within roles

Remaining Tasks

- Printing of revised Urban Home*A*Syst booklet
- Remaining site visits
- Final reports

Results

- Impacts largely among stakeholders using watershed vs. living within (interested and invested)
- Good success engaging through social media
 - 661 Youtube views (avg. 1 min 46 seconds)
 - 1,711 Facebook views (30 seconds or less)
- Cleanup participants steadily increased/Awareness is up
- Continuing activity in watershed
 - Organizations adopting sites for invasive removal/native restoration
 - Helped mobilize cities to start taking action where it's really needed
 - More unified efforts among organizations and user groups

Questions?

A dramatic sunset over a lake. The sun is low on the horizon, casting a bright yellow and orange glow across the sky and reflecting on the water. A lightning bolt strikes the sky in the distance. In the foreground, a concrete structure, possibly a water tower or observation tower, stands in the water, its reflection visible. The sky is filled with dark, heavy clouds, and the overall atmosphere is one of a storm brewing or just passing.

UofA

**DIVISION OF AGRICULTURE
RESEARCH & EXTENSION**

University of Arkansas System