



Taking Fayetteville's Natural Heritage into the Future - since 2003

April, 2015

[www.fayettevillenatural.org](http://www.fayettevillenatural.org)

# Newsletter

Volume 12, Issue 1

Join FNHA on April 19, 2015, for a Celebration of Kessler Mountain!



THE GALA IS **SOLD OUT**

WE THANK YOU FOR THE FANTASTIC RESPONSE  
TO THE EVENT

IF YOU DIDN'T GET A TICKET,  
YOU CAN ATTEND IN SPIRIT  
and  
SEND A CONTRIBUTION  
TO SHOW YOUR SUPPORT

JOIN US  
FOR A  
CELEBRA-

TION OF

*and Barn*

2231

WEST MARKHAM ROAD, FA-



Join us on April 19th as more than 200 conservation enthusiasts come together at Pratt Place Barn to celebrate the preservation of the Kessler Reserve. The evening will include dinner, an introduction to Philip Kessler, special recognition of the "Women Out Walking," and special raffle items.

Fayetteville continues to emphasize the importance of land conservation. We invite you to join us for dinner, a wine and beer reception and a lively evening celebrating the history and biodiversity of the Kessler Reserve.

#### 2015 GALA CO-CHAIRS

Sara and Bob Caulk  
Angie and John Coleman  
Denise and Hershey Garner  
Margo and Pete Heinzelmenn  
Ivone and Jeremy Hudson  
Terri and Alan Lane  
Natalie and Steve McBee  
Sara and Frank Sharp  
Barbara Taylor

Space is limited. Purchase your tickets via mail: P.O. Box 3635, Fayetteville, AR 72702; by phone: 479-973-2968 or online: [fayettevillenatural.org/rsvp-for-kessler-gala](http://fayettevillenatural.org/rsvp-for-kessler-gala)

Individual seat—\$100, 6-person table—\$600, 8-person table—\$800

Attire is dressy casual.

## THE KESSLER RESERVE STORY

On February 18, 2014, the Fayetteville City Council voted unanimously to acquire 376 acres of woods and nature trails on Kessler Mountain to use for outdoor recreation, an outdoor classroom/laboratory (K-PhD), watershed protection of the Illinois and White River watersheds and the preservation of natural resources within the city limits of Fayetteville. The Walton Family Foundation and the City of Fayetteville each gave \$1,500,000 and the Chambers Family Foundation donated 48 acres. The Fayetteville Natural Heritage Association pledged to demonstrate community support by raising \$300,000 over a three-year period that will be used, in part, for an ecological assessment of the property, to fund a conservation easement held by the Northwest Arkansas Land trust, to build a pavilion and to add educational signage.

## FNHA Presents Check to City of Fayetteville for Gulley Park Expansion

At a City Council meeting on Tuesday, March 3, FNHA treasurer **Bob Caulk** presented a check to the City of Fayetteville for the community support portion of the expansion of Gulley Park. The Fayetteville Natural Heritage Association and the Friends of Gulley Park partnered to raise \$130,000, representing the difference between appraised value of the 11-acre property on Old Wire Road, which included two houses, and the city's purchase price.

The Friends of Gulley Park raised \$65,000 in donations and the Fayetteville Natural Heritage Association was successful in obtaining a \$65,000 matching grant from the Walton Family Foundation. The grant was the first given under the Foundation's "Sense of Place" strategy to invest in open space. The project qualified for the grant because the Enduring Green Network in the City of Fayetteville's 2030 Plan identified the area around Niokaska Creek, which runs through Gulley Park, as a conservation priority. FNHA is proud that the Enduring Green Network concept was based on our innovative Green Infrastructure Project which identified and ranked natural areas using a sophisticated GIS mapping system and which has won regional and national awards.

FNHA founding Board member **Pete Heinzelmenn** spoke at the end of the presentation to the City:

"I would like to say something about **Wade Colwell** because I think he championed the acquisition of the Dunn property addition and is really the reason, in the first place, that we have Gulley Park today.

Wade grew up next to the Gulley's farm and that became his playground - exploring, fishing and just having fun. As the years went by and Mr. and Mrs. Gulley were getting on in years, Wade asked them if they would like to sell their land to the city so that it could be preserved as a park. They agreed and Wade took the offer to the City Council and they agreed and now we

have this wonderful park complete with open fields, playground, trails and an incredible gem - Niokaska Creek, which flows through the park and into the Dunn property. The name, Niokaska, was chosen by the 4<sup>th</sup> grade class at Root School and is an Osage Indian name meaning *Little People of the Middle Waters* (and this was originally their land) - an appropriate name for all the little people who now enjoy this park today. My granddaughter was a member of that class.

When the adjacent Dunn property came up for sale, Wade again saw the value of this open, natural land and brought public attention to it. Then working with **Max Mahler**, his associate, he raised money to help the city purchase the land. Together with a matching grant (and financial backup from the FNHA) they were able to raise \$130,000 to help the city expand this wonderful park.

The question may come up, Why save natural areas in Fayetteville? Here is one answer that was in the front-page article of the first issue of the FNHA Newsletter in Spring 2004: "To me, they mean keeping Fayetteville's future bright. Many communities do not have the wonderful natural areas that we have. When a business, family or an individual decides on a place to locate, where will they choose to go? Will they choose a city with congestion, jammed streets, buildings, traffic and nothing else, or a community that has preserved its special places to walk, ride, recreate and just enjoy? We in Fayetteville need to make sure we preserve our valuable natural heritage and pass it on so that our families and others will have a great community to live in." [Editor's note: Pete, who was then FNHA chairman, wrote the 2004 article that he quotes here.]

So I think it is appropriate to thank Wade and it is certainly appropriate to thank all of you on the City Council and Mayor Jordan for saving these special places for Fayetteville and future generations who will live here."

## Karen Crocker Receives Golden Acorn Award at FNHA Annual Meeting



Karen Crocker

The Golden Acorn Award was presented to **Karen Crocker** at the February 15, 2015, annual meeting of the Fayetteville Natural Heritage Association. The award was given to Karen "For championing land use planning and conservation efforts that are translating across Northwest Arkansas. She has demonstrated the passion to overcome obstacles, to move forward when others grow weary, and to not only complete the undertaken task, but produce an outstanding product."

Karen moved to Fayetteville in 1985 when she became Assistant Professor of Landscape Architecture at the University of Arkansas. She has helped FNHA procure several grants and has donated many hours as a landscape architect toward matching grant funds for FNHA. Most significantly, she oversaw an urban forestry grant that profiled and ranked Fayetteville land parcels on their value as greenspace. Karen serves on the Board of FNHA. Thanks and congratulations!

## John McLarty Addresses FNHA Annual Meeting

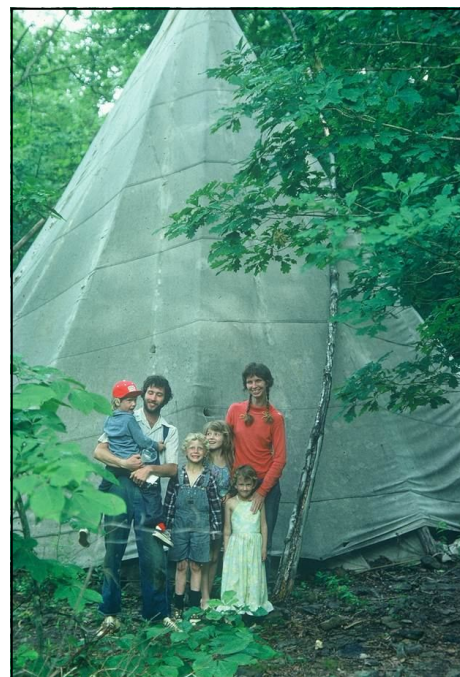
The featured speaker at the 2015 FNHA Annual Meeting was **John McLarty**, Assistant Director and Transportation Planner for the Northwest Arkansas Regional Planning Commission. The Regional Planning Commission has recently begun the process of developing a Northwest Arkansas Regional Open Space Master Plan for the communities of Northwest Arkansas and Benton and Washington Counties.

The plan will identify the natural landscapes and open spaces that make Northwest Arkansas an attractive place to live and will develop a comprehensive strategy for the conservation of these natural assets for the use of current residents, visitors and future generations. It will provide a strategic focus and direction for establishing an open space network to support improved water quality, habitats, economic opportunities, and healthy living choices for walking, biking and social interaction. The planning process will involve participation from citizens and elected officials of Northwest Arkansas and will draw upon the expertise of organizations such as the FNHA.

The Open Space Planning Initiative has just begun, but McLarty, who also serves as the National Trail of Tears Association delegate and is president of the Arkansas chapter, talked about why people began to move to Northwest Arkansas in the 1800s and continue to do so today. He began with his personal reasons for moving here several decades ago: cheap land and free water. His interest in Heritage Trails showed him that even earlier settlers came here because the topography made travel possible and because the land lies between the watersheds of two major rivers. Good soil of the prairies along the rivers supported agriculture. Logging trees covering areas of the Ozarks became a major industry. And then, as now, we had abundant water.

The natural assets that have brought people to NWA and continue to do so can be vulnerable to the impact of more people moving into the region. We need to develop a plan to conserve, preserve and protect them if we want responsible growth.

McLarty also discussed briefly the Northwest Arkansas Regional Planning Commission's 1970 Open Space Plan and the journey of the past ten years which has included the development of Heritage Trails, FNHA's studies, two regional trail plans and the Razorback Greenway. All of these developments have brought us to a point where we are ready for a region-wide plan to preserve our natural heritage. He promised to come back and tell us about developments and results.



The McLarty family and their Ozarks teepee.

Take a look at our new  
and improved website:  
[www.fayettevillenatural.org](http://www.fayettevillenatural.org)

You will find the revamped  
site richer in content and  
easier to navigate!

## Two New Board Members Elected at FNHA's 2015 Annual Meeting

A Fayetteville resident since 2010, **Tom Dureka** holds a BA in Anthropology from the University of Kansas. His field archeology work took him to nine states from 1978 -2003. During their time in Central Texas, Tom and his wife Ann helped launch the Bastrop County Environmental Network to resist toxic sprawl and build a habitat conservation plan for the endangered Houston toad. He co-founded the Pines & Prairies Land Trust in 1999 and served as Executive Director for its first ten years during which it acquired six conservation easements and two preserves, and developed a thriving nature education program. He has led efforts to eradicate invasive non-natives in the Brooks-Hummel Preserve for FNHA.

**Jennifer Ogle** is a botanist and graduate student at the University of Arkansas whose research focuses on conservation and education related to native plants and their habitats. She co-edited *Atlas of the Vascular Plants of Arkansas* (published in 2013) and is currently co-authoring a field guide to the woody plants of Arkansas for the Ozark Society Foundation. Jennifer also serves as an officer of the Arkansas Native Plant Society. She and husband, Isaac, have lived in and around Fayetteville since 1992.



## Fayetteville 4th Grade Students Will Soon Take Field Trips to Kessler Mountain

In spring 2014, a steering committee organized by **Guy Headland** of the National Parks Service Rivers, Trails and Conservation Assistance Program met to begin discussing educational opportunities at Kessler Mountain. While conversation at the initial meeting ranged from preschool activities to PhD studies, using the entire preserve, the group later decided to focus on a pilot project for a field trip using 20 acres under conservation easement behind the Ozark Smokehouse.

Steering committee members **Jenny Gammill**, Director of K-12 Science and Instructional Technology, and **Dana Smith**, Sustainability Coordinator, both of the Fayetteville Public Schools, have encouraged a pilot project to develop use of the space for 4<sup>th</sup> grade field studies. A small subset of the steering committee has met over the past ten months to identify what a 4<sup>th</sup> grade science-focused field trip could look like and how it could use the 20-acre parcel and the classroom space in the Ozark Smokehouse.

Guy Headland proposed modifications to the existing trail to better align with the natural contours of the landscape and to highlight natural features. After approval from the City of Fayetteville, which manages the conservation easement on the property, a group of volunteers recently met to realign the trail and begin the arduous process of removing invasive species.

Future work includes developing the curriculum for a classroom component as well as a guided nature hike on the trail. University of Arkansas Education Studies student **Megan Martin** is currently completing an internship in the Fayetteville Public Schools Sustainability Office to compile potential resources and curriculum ideas for the trip. To align with national science standards, the ideal trip will provide hands-on learning opportunities that especially highlight plant and animal adaptations and land erosion. The planning committee will continue to meet throughout the spring and summer to further develop the curriculum. Fayetteville Public Schools also recently received a \$1500 grant from EcoPotential NGO to purchase educational materials such as binoculars and animal pelts and skulls for the field trip and to outfit the Ozark Mountain classroom space.

There is great potential for the classroom space and the trail to become a community environmental education learning center for students of all ages and for community groups. The committee hopes that the initial 4th grade field trip focus will provide just one example of the many learning opportunities available at Kessler Mountain.

Many partners are engaged and have provided support for the project, including those mentioned above and **Karen Crocker** and **Bob Caulk** of Fayetteville Natural Heritage Association; **Frank Sharp**; **Justin Taylor**; **Terri Lane** and **Alan Edmonson** of NWA Land Trust; and **Matthew Miller** of Ozark Natural Science Center.

As a result of the field trip:

- Students will have a hands-on experience with nature.
- Students will leave with an understanding of the importance of conserving natural areas and resources.
- Students will make observations to provide evidence of the effects of weathering/erosion by water, ice, wind or vegetation.
- Students will identify and learn about adaptations of Arkansas plants and animals to demonstrate internal and external structures that function to support survival, growth, behavior and reproduction.
- Students will learn to read and use a map to navigate.
- Students will learn about the natural history of Kessler Mountain and be able to construct an argument related to preserving land in urban areas.

— Article by Dana Smith



At left, volunteers work on Kessler Mountain to align a trail with the natural contours of the landscape and to highlight natural features

## FNHA Scholarships Will Send Students to the Halberg Ecology Camp in 2015

The FNHA board voted to use proceeds from its scholarship endowment fund to send students to the Arkansas Audubon Society's Halberg Ecology Camp again this year. The week-long residential camp is for 11- and 12-year-old students, and is hosted at Camp Clearfork, a U.S. Forest Service camp between Hot Springs and Mt. Ida. Please enjoy as much as we did the thank-you notes FNHA received from last year's scholarship recipients:

**Fayetteville  
Natural  
Heritage  
Association**  
!!!!!!  
ooooo

Dear Fayetteville Natural Heritage Association,  
Thank you soooo much for helping me come to this A-M-A-Z-I-N-G Camp. My favorite classes were Botany, Aquatic Biology, and Geology. This was such an incredible experience. Thank You!  
Sincerely,  
Zola Starr-O'Berry

Dear Fayetteville Natural Heritage Association  
I would like to come back next year as a senior because I really like it here and I really liked geology when we mined the fools gold and we got swim.

Sincerely, Mason Barnes

Dear FNHA,  
Thank you so much for giving me the scholarship to Camp Audubon. I am having a great time! I even met a couple new friends. I think this is a good opportunity for me and also my first over night camp. Again, thank you.  
-Lillian Jennings

Thank you Fayetteville Natural Heritage Association for letting me come to Audubon Camp. I was so glad I came because I learned new things and got to see new things. Thank you for letting me come. :)  
From: Mary Margaret



Thank you Fayetteville Natural Heritage Association,  
Words can not describe how much I appreciate your scholarship for me to go to camp Audubon. (I apologize if I misspell some thing). Botany and geology were my favorites by far. I enjoy wild life and plants so much. Geology was also very enjoyable. I loved taking walks to old sites. I mined for fools gold (pyrite), explored a creek and drew of my face with rocks, and found quartz. There is no better way to say thanks than thank you.  
-Mark Korman

Thank you so much for sending me to Audubon camp. I had a great time here. I had tons of fun getting to do all the classes I got to do. Thank you for letting me come. Jude

To whom it may concern,  
My name is Artemis Hogue. This is my second year at camp Audubon. I've always thought of myself as a person well adept to nature until Audubon. It was like I was standing at a locked glass door with no key. Audubon gave me the key. I have walked through the door and for the first time seen nature up close. The gift you made possible is like no other. I have new doors that have blown open to opportunities. I have learned things that given time will change the world for good. I really understand the meaning of what someone like you cares about. I wish to go to get better, it's just not. I wish to. Sincerely, thank you.

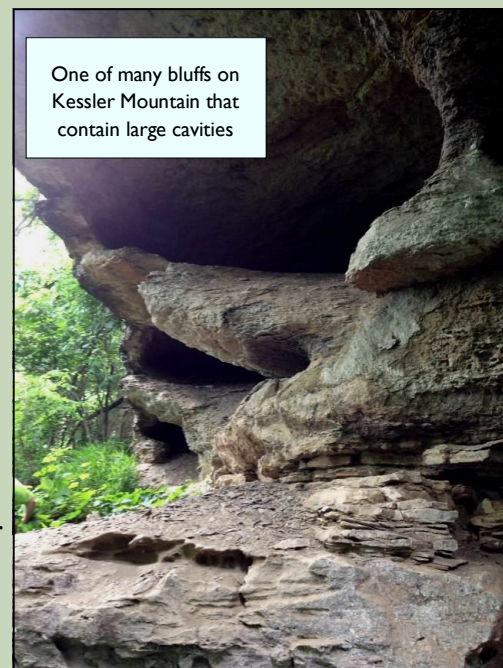
Hi, I'm Liviyen and I just wanted to thank you for giving me a scholarship. I really enjoyed my time here at Audubon. I learned so much here. Some of the things I learned are that the you can have a venomous snake bite doesn't always have to be poison.  
Thank you!



## Kessler Mountain Ecological Assessment Final Report Submitted to FNHA

**Theo Witsell**, botanist and ecologist with the Arkansas Natural Heritage Commission, submitted his final report on March 1, 2015, to the Fayetteville Natural Heritage Association detailing the ecological assessment he and his assistants have conducted during several months on Kessler Mountain. The formal title of the report is: "A Rapid Terrestrial Ecological Assessment of Kessler Mountain Reserve." The Executive Summary states:

"The Arkansas Natural Heritage Commission (ANHC), under contract with the Fayetteville Natural Heritage Association (FNHA), conducted a rapid ecological assessment of the Kessler Mountain Reserve from April through October 2014. This report summarizes findings based on six separate inventory trips to the reserve (15 days total). . . . This inventory documented 11 natural communities or habitats and 544 plant species present in the study area. Five areas or habitats were identified as being especially ecologically significant to the site. Populations of at least nine plant and animal species of state conservation concern (rare species) were documented, at least two of them considered to be of global concern. One globally rare plant species, Missouri ground cherry, had not been documented from Arkansas in more than 60 years. A second, Church's wild rye, was not previously known from Washington County. This report presents an ecological overview of the site, descriptions of the natural communities present, maps and brief descriptions of ecologically significant areas, maps of known occurrences of species of conservation concern, and an annotated list of plant species documented from the study area. It also makes recommendations for ecological management and provides an annotated list of those non-native invasive plant species present that are considered to be a threat to the integrity of natural communities on the reserve."



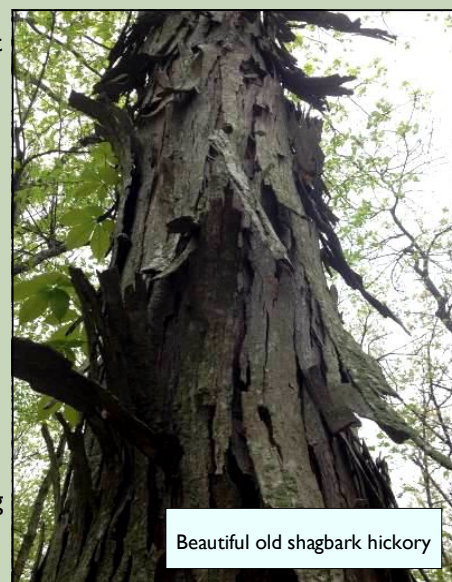
One of many bluffs on Kessler Mountain that contain large cavities



Dutchman's Breeches

Witsell notes three major ecological stresses on the reserve's natural communities: fire suppression, non-native invasive plant species, human-caused disturbances and a fourth potential stress, deer pressure. He recommends that additional inventories of Kessler's flora, fauna and geological features be undertaken to determine further conservation concerns. He notes that the most important management goals for the Kessler Mountain Reserve should be to restore more open conditions to the barrens, woodlands and bluffs or talus communities and to combat non-native invasive species throughout the reserve.

The two most effective and important management actions that can be taken are establishing an aggressive invasive species management program and implementing a prescribed burn program. His six recommendations are: 1) invasive species control, 2) prescribed fire, 3) opening woodlands, 4) protecting the shale barrens, 5) develop thoughtfully and 6) manage the power line right-of-way. An appendix includes many photos of the area, a few of which are reproduced on this page.



Beautiful old shagbark hickory

Photographs from Witsell's report

## Arkansas Darter: The Little Fish on the Prairie



A netted Arkansas Darter

Arkansas darters inhabit small, sunlit, spring-fed tributaries often flowing through grasslands throughout the Arkansas River basin from Colorado to northwest Arkansas. Efforts to restore the darter are underway at Wilson Springs Conservation Area in Fayetteville.

Retired U.S. Forest Service biologist **Joe Neal** described the darter as a "lovely, two-inch long native fish that looks like gold in the shallow clear water where they live." The Arkansas darter is a candidate for federal endangered species listing and is one of the rarest fishes in Arkansas. Found in only seven areas in the state, including Wilson Springs Conservation Area where they were first discovered in Arkansas in 1979, the species is of special concern, tracked by the Arkansas Natural Heritage Commission and prioritized for conservation need in the Arkansas Wildlife Action Plan.

As home to one of the last populations of Arkansas darter in the state, and one of the last tall grass prairie remnants in the region, Wilson Springs has been the subject of public concern for many years. The namesake Wilson Spring runs from the east. An unnamed tributary comes in from the north. They converge within the conservation area with Clabber Creek, near its headwaters.

Wilson Springs Conservation Area was named for **Steve N. Wilson**, long-time Arkansas Game and Fish Commission director, who did collegiate graduate research in the area.

This system of spring-fed streams once flowed across undisturbed wetlands, providing the ideal habitat for the Arkansas darter. Land changes due to agriculture conversion and urbanization, however, coupled with fire suppression and lack of maintenance by large grazing herbivores, led to an overgrowth of woody and invasive plant species completely shading the once sunlit stream and raising concern that this population, like others before it, would soon disappear.

After several preservation starts and stops over the span of two decades, the original 289-acre property was reduced to its current and not-quite-contiguous 121 acres. In 2011, ownership and management were transferred to the Northwest Arkansas Land Trust for restoration and permanent protection. A State Wildlife Grant from the Arkansas Game and Fish Commission, along with support from the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program, allowed the Northwest Arkansas Land Trust to begin habitat restoration in 2012. Stream ecologist **Dr. Arthur Brown** had advised that proper habitat for the darter required sunlight along the spring that would in turn nurture aquatic vegetation required by the darters. Following this advice, recent restoration activities have focused on the removal of understory (dominated by non-native Amur honeysuckle) and trees less than 8 inches in diameter at breast height from the Wilson Spring riparian zone and surrounding 19-acre savannah. This treatment successfully opened the canopy by over 80 percent and with sunlight restored, streamside and aquatic vegetation, including in-stream patches of watercress returned. This provided conditions most suitable to the Arkansas darter. During an October 2014 survey conducted by **Mike Slay** with The Nature Conservancy and **Brian Wagner** with the AGFC, 52 darters were netted and quickly released in the newly restored habitat.

While the first phase of restoration netted positive results, there is plenty more to do and future challenges to be met, especially in light of the ever increasing pace of development in the surrounding watershed. A priority for the next phase of restoration is to apply the same clearing treatment to the unnamed tributary which enters the property from the north. This tributary historically served as further refuge for the darter, accommodating the need for seasonal movement between sites.

During the same October 2014 survey, only seven darters were netted in this reach, all in association with limited patches of streamside vegetation where sunlight still manages to penetrate the overgrown canopy. By extending habitat management here, the land trust seeks to expand suitable habitat while also establishing a second refuge in case of threat to either tributary.

The next part of the success story at Wilson Springs involves the plant community, which, like the darter, has responded favorably to the removal of dense overgrowth. Biannual surveys documented the return of native prairie and wetland plant species since restoration began, including four species tracked by the Arkansas Natural Heritage Commission and two new county records. Tracked species include David's sedge, Hitchcock's sedge, Swamp Milkweed and Wolf's Spikerush. New county records include Knotty leaf rush and Grassleaf rush. Continued clearing of the sites' former tall grass prairie is another top priority for the next phase of restoration. A 35-acre plot is targeted. The relic seed bank is expected to respond with equal vigor.



## Chairman's Corner by John Coleman

FNHA is experiencing one of its busiest seasons since its inception in 2003. To help disseminate up-to-date information on all of the activities that are occurring we recently revamped our website at [www.fayettevillenatural.org](http://www.fayettevillenatural.org). This will make it easier to provide new content and to interact with members. Below is a summary of some of these efforts, but for more information check out the website!

In partnership with the Friends of Gulley Park and the Cow Paddy Foundation, FNHA presented a \$130,000 check to Mayor Lioneld Jordan for the Gulley Park Expansion at the March 3<sup>rd</sup> City Council meeting. Generous donations from **Kay Palmer**, **Buffington Homes**, and 75 total donors helped match a \$65,000 grant from the **Walton Family Foundation**. The grant was made possible through the Walton Family Foundation's new "[Sense of Place](#)" strategy.

On April 19<sup>th</sup> FNHA will take the next step towards its efforts to preserve Kessler Mountain by hosting a celebration at Pratt Place Barn. The evening will include dinner, an introduction to **Phillip Kessler**, special recognition of the "**Women out Walking**", and raffle items. We invite you to join us for dinner, drinks, and a lively evening celebrating the history and biodiversity of Kessler Mountain Reserve. We hope to see you there!