

# Northwest Arkansas

# OPEN SPACE PLAN



FINAL PLAN | 2016



*Prepared for the Northwest Arkansas Regional Planning Commission  
Prepared by Alta Planning + Design*



## Acknowledgements

Thanks to the 800+ local residents, business leaders, and government staff that participated in the development of this Plan through meetings, events, volunteering, interviews, online mapping, comment forms, and plan review. Special thanks to those who participated as project committee members, staff and advisors, listed below.

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**APPENDIX A: COMMUNITY OPEN SPACE MAPS**

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**INTENDED AUDIENCES**

The intended audience for this document includes landowners, developers, government planners, elected officials, and all groups interested in conservation, recreation, historic preservation, cultural resources, water resources, wildlife habitat, tourism, economic development, and overall quality of life in Northwest Arkansas.

**ADDITIONAL INFORMATION**

Please contact the NWARPC for additional information on this Plan and planning process: 1311 Clayton Street, Springdale, AR 72762 479-751-7125 | [www.nwarpc.org](http://www.nwarpc.org)



# Executive Summary

## OVERVIEW OF PROGRAM & INTENT

The Northwest Arkansas Open Space Plan will develop a coordinated, voluntary program to protect and promote the region’s most valued natural landscapes and open spaces. Open space includes the lands and waters where people hunt and fish, play with their children, hike through the woods, observe wildlife in their natural habitat, and, in some cases, where they farm and grow food. The goal is to preserve these assets, thereby maintaining our high quality of life as the region continues to grow and prosper. Simply put, the vision of this Plan is to ‘conserve some country as we grow.’

## WHY WE NEED THIS PLAN

Northwest Arkansas has abundant open space today, but the rapid growth of the region has already begun to replace forests, prairies, farmland and other valued natural lands with housing, shopping centers, highways, office parks and other forms of development. Between 2010 and 2030, Northwest Arkansas is projected to have the highest growth rate in the central United States. The projected population growth rate of 58% roughly translates to an increase in population from 500,000 today, to 800,000 in 2030. Without question, people need places to live, work, shop and be entertained. However, people also need places that support outdoor activities, protect water supply from pollution, conserve habitat for native plants and animals, and ensure the quality of life for all residents. People value the beauty and function of their natural lands and waters. This is why open space conservation is important to the region.



*Community leaders, municipal staff, local historians, local farmers, and many others offering input for the Open Space Plan.*

## HOW PRIORITIES WERE DEVELOPED: PUBLIC PROCESS + OPEN SPACE MAPPING

As a region, the communities in Northwest Arkansas can be strategic in protecting their most valued natural landscapes and heritage resources as they grow. This Plan identifies such landscapes by combining extensive public input and stakeholder involvement (Chapter 2) with state-of-the-art analysis of the region’s natural, cultural, historic, agricultural, and recreation resources (Chapter 3). The result is a set of maps and data that show priority areas for conservation throughout the region. These main input maps cover:

- Natural Resources
- Outdoor Recreation
- Working Lands
- Heritage & Cultural Resources
- Cores & Corridors

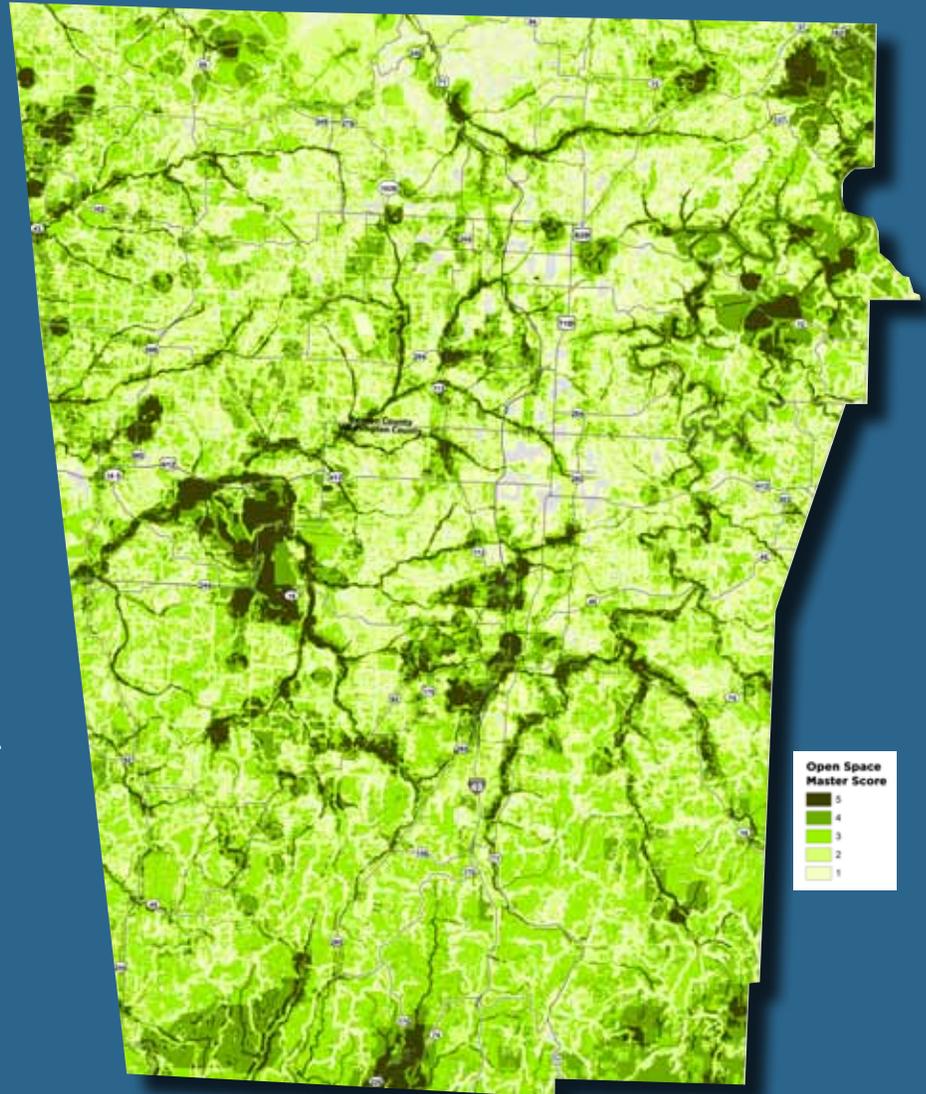
These five resource maps (pages 70-74), were overlaid and combined to create the Overall Open Space Priority Map (opposite page & page 75), with the greatest emphasis on natural resource features, as directed by the Steering Committee, and as supported by input from the public comment form.

## OVERALL PRIORITY OPEN SPACE MAP

Open space resources are shown with a priority range of 1-5, with the higher values shown in darker shades of green. This map should be considered as a starting point for regional discussions about conservation priorities. The goal is not to protect all priority areas, but rather to work with willing landowners who wish to conserve their land, using the maps as a tool in evaluating potential projects. All landowners are welcome to submit ideas for land conservation, regardless of the priority ranking on these maps.

## IMPLEMENTATION & EXPECTED OUTCOMES

A voluntary, regional approach to conservation is recommended, involving willing landowners and the region's existing conservation organizations. As recommended by the project Steering Committee and the project consultant, the recommended leader of this effort is the Northwest Arkansas Regional Planning Commission (NWARPC). This is due to the level of trust, transparency, and regional representation that the organization provides. A new Open Space Committee of the NWARPC would accept conservation project nominations from landowners, community groups, municipalities, and others, with actions approved by the regional representatives of the NWARPC leadership.



The near-term next steps for this initiative are to continue education and outreach efforts throughout 2016, while also documenting the level of financial need for the program from interested landowners and conservation groups. Gauging public interest in funding a conservation program will be another important task for 2016, since every successful open space program in the United States shares one common trait – a local source of funding that is used to match and leverage other funding in support of open space conservation. Expected outcomes of this Plan include: 1) An established regional vision for open space conservation priorities, 2) an established leadership structure, operation framework, conservation toolbox, and funding source for carrying out the open space program, and 3) the protection of open spaces, allowing us to “conserve some country as we grow.”



# 1

## *Needs & Goals*

*"We must recognize that all our land is destined to be put to some human use. If any of it is to be preserved in its natural condition, it must be as the deliberate setting aside of it for our human use of it in a natural condition."*

- Howard Zahniser, primary author of the Wilderness Act of 1964

## PURPOSE

The Northwest Arkansas Open Space Plan will develop a coordinated, **voluntary** program to protect and promote the region's most valued natural landscapes and open spaces. The goal is to preserve these assets, thereby maintaining our high quality of life as the region continues to grow and prosper. Simply put, the vision of this Plan is to "conserve some country as we grow."



Above: Pea Ridge National Military Park.



## PROJECT OVERVIEW

This Plan identifies the natural landscapes and open spaces that make Northwest Arkansas an attractive place to live, and includes a comprehensive strategy for the conservation of these natural assets. Though focused on conservation, this Plan is consistent with the regional goal of continued growth and development. Land development can continue to occur in Northwest Arkansas while still protecting the most important open spaces. Landowner participation in conservation programs is welcome and encouraged, but strictly voluntary. To this end, the Plan features a detailed mapping inventory of regional resources, and a “toolbox” of strategies that landowners, developers, and governments can draw upon to balance regionally important goals of land conservation and development. In short, according to NWARPC project manager, Elizabeth Bowen:

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*“The Plan will provide a strategic focus and direction toward establishing an open space network to support outdoor activities, economic opportunities, improved water quality, and habitats.” - Elizabeth Bowen, NWARPC*

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## BACKGROUND

Since its formation in 1966, the Northwest Arkansas Regional Planning Commission (NWARPC) has been working toward making Northwest Arkansas (NWA) a more desirable place to live and work. Open space has been a subject of discussion in Northwest Arkansas for decades, beginning with NWARPC’s first open space plan in the 1970s. Since then, many other local and regional studies have focused on open space, or included it as a key component. This new Plan builds upon these previous and ongoing efforts and provides the rationale and strategies necessary to implement recommendations. The Plan is being financed through a grant by the Walton Family Foundation to the NWARPC.



*The NWARPC has been working toward making Northwest Arkansas a more desirable place to live and work for nearly 50 years.*

*Clockwise from top left: Beaver Lake, Spring Creek in Springdale, farmland in Northwest Arkansas, and Pea Ridge National Military Park.*



## WHAT IS OPEN SPACE?

There are many definitions of open space, and what it includes varies from region to region, based on community values and the physical characteristics of the environment. Open space in this context is also sometimes referred to as “green infrastructure.” According to the book, *Green Infrastructure: Linking Landscapes and Communities*, it is defined as:

“A strategically planned and managed network of wilderness, parks, greenways, conservation easements, and working lands with conservation value that supports native species, maintains ecological processes, sustains air and water resources, and contributes to health and quality of life for America’s communities and people” (Benedict).



## **BENEFITS OF OPEN SPACE SUMMARY**

The information on this page and the following page provides a basic overview to some of the key benefits of open space, as a further introduction to why this Plan is important. These concepts are expanded upon in more detail in the remainder of this chapter.



### ***ENHANCING QUALITY OF LIFE & GENERATING ECONOMIC ACTIVITY***

- Proximity to parks and open space enhances the value of residential properties (Harnick).
- Parks and greenways attract non-resident visitors who put new dollars into local economies (Harnick).
- Quality parks and scenic landscapes help attract and retain a high quality workforce (Headwaters Economics).

### ***WATER QUALITY BENEFITS***

- Open space provides protective natural buffers to critical water resources, such as Beaver Lake (the primary source of drinking water for Northwest Arkansas), the White River, the Illinois River, and their tributary creeks, streams, and wetlands (Illinois River Watershed Partnership, and Beaver Watershed Alliance).



- A 2008 survey of Arkansans found that “nearly all respondents viewed water as an important issue for Arkansas’ long-term growth and prosperity” (Winthrop Rockefeller Foundation).



### ***NATURAL WILDLIFE HABITATS***

- According to the Northwest Arkansas Land Trust, “While some cities are beginning to incorporate connective greenways into their planning process, natural areas are being rapidly consumed in Northwest Arkansas, resulting in the fragmentation of important ecosystems, scenic areas and wildlife habitats” (Northwest Arkansas Land Trust).
- Northwest Arkansas’ karst topography (including caves, springs, and sink holes) supports clean water and native habitats unique to the region. These are areas highly sensitive to pollution and open space helps to protect them (Arkansas Natural Heritage Commission).



**RECREATION, HEALTH & SAFETY BENEFITS**

- Recreation areas help to increase physical activity, thereby preventing obesity and reducing chronic medical conditions, not to mention improving mental health and overall quality of life. Parks may also improve public health by increasing social interaction, reducing stress through exposure to nature, and more (Cohen and McKenzie).
- The protection of natural floodplains along rivers and streams protects people and property from flood damage.



**HISTORIC & CULTURAL BENEFITS**

- Open space provides context for historic and cultural attractions. The quality of experience for visitors is critical to the success of tourism for such sites, and open space planning can help protect them and buffer them from nearby development.

- Example: Pea Ridge National Military Park is the most intact Civil War battlefield in the United States, and a key goal for management of the park is “preserving the character of the landscape” (National Park Service).



**FARMLAND & RURAL LANDSCAPES**

- Scenic landscapes, such as family farms, prairies, forested ridgelines and Ozark vistas help define Northwest Arkansas’ very character.
- According to the *Northwest Arkansas Regional Food Assessment*, “The continued viability of agriculture in Northwest Arkansas depends significantly on three interdependent factors: farms remaining economically viable, farmland staying in production (and out of development), and new farmers succeeding retirees” (Karp Resources).
- Successful open space protection provides more choices to landowners, whether it is a farmer who wants to keep their land in farming, or a property-owner who simply wants their children to recognize the land on which they grew up.

*Clockwise from top: Flint Creek at Springtown by Terry Stanfill, Devil's Den State Park, Mill Creek, and 'Rock City' trail on Kessler Mountain.*



# Why Does Northwest Arkansas Need an Open Space Plan?



**TREND**

**NORTHWEST ARKANSAS IS THE FASTEST GROWING REGION IN THE CENTRAL U.S.**

**GOAL**

**MAINTAIN QUALITY OF LIFE & SUPPORT ECONOMIC GROWTH**



**TREND**

**URBAN DEVELOPMENT IMPACTS OUR NATURAL RESOURCES**

**GOAL**

**PROTECT OUR WATER QUALITY & NATURAL WILDLIFE HABITAT AS WE GROW**



**TREND**

**OUTDOOR RECREATION IS CRITICAL FOR HEALTH & TOURISM**

**GOAL**

**SUPPORT OUTDOOR RECREATION, HEALTH AND WELL-BEING**



**TREND**

**NORTHWEST ARKANSAS' HERITAGE IS UNIQUE AND WORTHY OF PRESERVATION**

**GOAL**

**PRESERVE OUR HISTORIC & CULTURAL SITES AND SENSE OF PLACE**



**TREND**

**FARMLAND PROTECTION IS KEY TO LONG-TERM VIABILITY OF AGRICULTURE IN NORTHWEST ARKANSAS**

**GOAL**

**SUPPORT AGRICULTURE & FOOD PRODUCTION**



**TREND**

**NORTHWEST ARKANSAS IS THE FASTEST GROWING REGION IN THE CENTRAL U.S.**

**GROWTH IN NORTHWEST ARKANSAS**

According to the Urban Institute's *Mapping America's Futures* project (a study that developed multiple series of population projections for 740 commuting zones in the United States by age and race and ethnicity), the projected population growth for Northwest Arkansas from 2010 to 2030 is **58%** (Pendall, et al.). This growth rate translates to Northwest Arkansas' population going from roughly **500,000 to 800,000**, controlling for average birth, average death, and average migration. This is **one of the top five highest projected growth rates identified in the study for the U.S., and is the highest projected growth rate in the Central Region of the U.S.**, as opposed to Eastern, Mountain, and Pacific Regions.

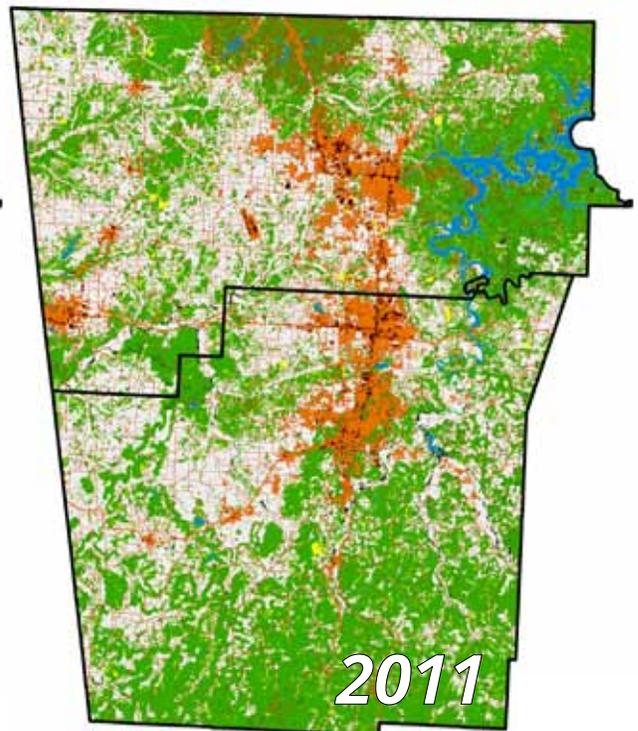
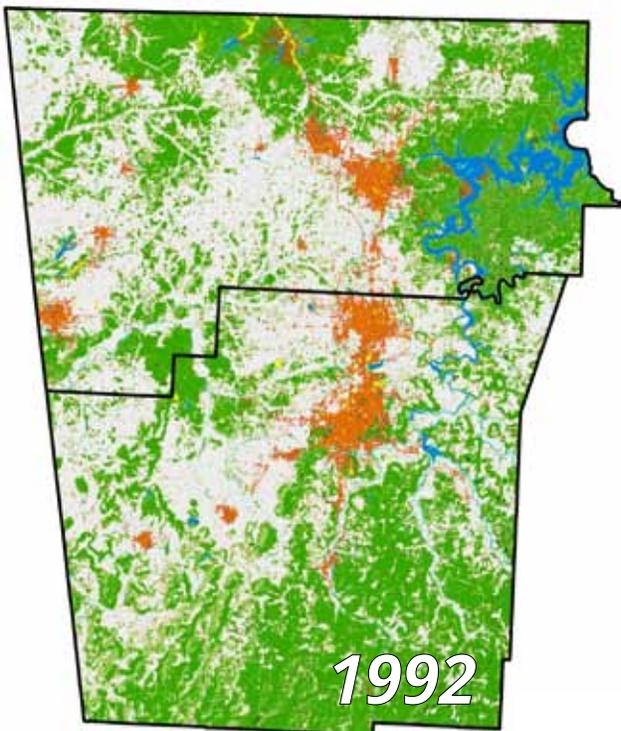
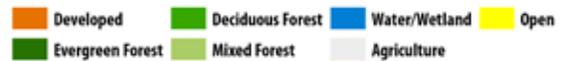
One of the biggest challenges to fast-growing communities is how to best preserve the region's

natural beauty and unique cultural and historical resources as they grow. To better understand the challenges presented by future land development, it is useful to look at past trends. The series of maps that follow show the land cover changes over time, from 1992 to 2011 (2011 is the most recent data set available for this particular analysis).

As the region grows with new residential and commercial development, it is important to do so in a way that also protects the key natural, cultural, and historic resources that make the region special. **These natural assets are essential to a high quality of life and serve as an important recruitment tool to attract the best and brightest new employees to our region's growth industries.**

**LAND COVER CHANGE IN NWA, 1992-2011**

Source: National Land Cover Database (NLCD)



**GOAL****MAINTAIN QUALITY OF LIFE  
& SUPPORT ECONOMIC GROWTH****OPEN SPACE IMPROVES QUALITY OF LIFE**

Open space includes the lands and waters where people hunt and fish, play with their children, hike through the woods, observe wildlife in their natural habitat, and in some cases where they farm and grow food. Northwest Arkansas has abundant open space today, but the rapid growth of the region has already begun to replace forests, prairies, farmland and other valued natural lands with housing, shopping centers, highways, office parks and other forms of development. **Without question, people need places to live, work, shop and be entertained. However, people also need places that support outdoor activities, protect water supply from pollution, conserve habitat for native plants and animals, and ensure the quality of life for all residents.** People value the beauty and function of their natural lands and waters. This is why open space conservation is important to the region.

**OPEN SPACE ENHANCES  
PROPERTY VALUES AND GENERATES  
ECONOMIC ACTIVITY**

The proximity to parks and open space enhances the value of residential properties and helps to attract and retain a high quality workforce. A study by the Trust for Public Land, *Measuring the Economic Value of a City Park System*, analyzes how park systems economically benefit cities, including a measure of impact on property value. The study cites a range of impact from -5% to +15% depending on the quality of the park space (Harnik). Even with a conservative estimate of only +5%, the study found net positive impacts in the billions for case study cities. In Washington D.C., for example, the total amount that parks increase



*High-quality open spaces, such as Northwest Arkansas' Razorback Regional Greenway, improve quality of life, increase property values and generate economic activity. Photo credit: Northwest Arkansas Democrat Gazette.*

property value was found to be just under \$1.2 billion. Using the effective annual tax rate of 0.58 percent, they found that Washington reaped an additional \$6,953,377 in property tax because of parks. This is not to mention the tourism value of parks which the study also covers. Using San Diego as an example, the study shows the citizenry's collective increase in wealth from park-based tourism at \$40,033,000, taking into account a detailed analysis of just those visitors who came to visit because of the city's parks (Harnik).

In addition to increasing property values, open spaces have been shown to generate economic activity. A great local example is Northwest Arkansas' Razorback Regional Greenway, which attracts non-resident visitors who put new dollars into local economies. **Cities along the Razorback Regional Greenway stand to see an economic boost and new visitors**, with everything from coffee shops to bike shops to housing.



**TREND**

**URBAN DEVELOPMENT IMPACTS OUR NATURAL RESOURCES**



**AS WE GROW, THE NEED TO PROTECT WATER QUALITY AND BIODIVERSITY INCREASES**

Benton and Washington counties share two main watersheds: The Upper Illinois River Watershed and the Beaver Lake Watershed (see Map 3.3 on page 56 for watershed sub-basins and related features). A watershed is an area or ridge of land that separates waters flowing to different rivers, basins, or seas. The Northwest Arkansas region is fortunate to have two excellent organizations dedicated to the protection of water quality for current and future generations in each of these watersheds: The Illinois River Watershed Partnership (IRWP) and the Beaver Watershed Alliance (BWA).

Key issues identified in the *Watershed-Based Management Plan for the Upper Illinois River Watershed* include the following (Illinois River Watershed Partnership):

- An important factor for the future of the Illinois River Watershed is **an increase in urban planning areas from 22% of the watershed area in 2006 to over 58% in 2050**. That is a significant increase that is anticipated.
- Future increases in population will prompt changes in land use and land cover, which, without proper watershed management, will negatively impact water quality and quantity.
- As with most urban areas, impervious surfaces dominate the landscape and increase the potential for non-point source pollution (NPS). NPS can include hydrocarbons, nutrients, sediment, metals, pesticides, and litter in

addition to increased volume and velocity of water flowing rapidly and directly to creeks and streams.

- Over the last decade, **pasture lands have reduced in area from 64% to 46% of the watershed** as a result of pastures being converted into urban development or restored to forested lands, showing the dramatic and dynamic nature of land use in the region.

The *Beaver Lake Watershed Protection Strategy* identifies similar issues, stating that while water quality in Beaver Lake is good, it needs to be proactively protected from degradation. Key findings include the following (Beaver Watershed Alliance):

- War Eagle Creek and the West Fork and Lower White Rivers are listed as impaired by the EPA.
- With continued urban development, there could be an **estimated 14% increase in nutrient pollutants and a 21% increase in sediments to Beaver Lake**.
- Economic costs associated with drinking water treatment are estimated to significantly increase as water quality degrades, potentially affecting costs to Northwest Arkansas residents and businesses.
- Top concerns are stream bank erosion in upstream tributaries, stormwater runoff, and excess nutrients from urban and pasture areas, poor construction site management, and increases in impervious area associated with urban development.

**GOAL****PROTECT WATER QUALITY & PROVIDE NATURAL WILDLIFE HABITAT****OPEN SPACE IS CRITICAL TO WATER QUALITY**

Protection of water quality is arguably the most important function of an open space network. Access to clean drinking water is an issue of global importance, both in the third world, where it is a matter of life and death, and right here in the U.S., where the entire state of California is facing record-breaking drought conditions. **A survey of Arkansans found that “Nearly all respondents viewed water as an important issue for Arkansas’ long-term growth and prosperity”** (Winthrop Rockefeller Foundation). The fact that Northwest Arkansas has access to clean drinking water today does not mean it should be taken for granted. Rather, **the region should continue and expand efforts to protect water sources into the future, especially as one of the fastest growing regions in the U.S.** (see page 14).

Open spaces are vitally important to water quality for several key reasons. When rainwater flows off impervious surfaces such as roads, parking lots, lawns, and rooftops, it picks up pollutants. When polluted rainwater flows directly into waterways, it causes significant ecological problems. Open spaces filter and treat stormwater runoff before it enters waterways, which also reduces stormwater management costs by capturing precipitation and slowing its runoff (Luoni, et al.). This is relevant in Northwest Arkansas as it impacts Beaver Lake as a drinking source, but also for Lake Tenkiller in Oklahoma, since much of Northwest Arkansas drains in that direction.

Retaining and reestablishing natural open space buffers around water features is especially

*Brush Creek tributary in Elm Springs*

important in Northwest Arkansas. This is due to the unique karst topography (land characterized by water-soluble bedrock), including features such as caves, springs, and sinkholes. **Approximately 25% of the nation’s groundwater is located in karst regions like Northwest Arkansas, making this unique landscape a valuable supplier of freshwater** (U.S. Department of the Interior.). These underground systems can move large quantities of water over great distances in a relatively short period of time. Because water travels so quickly through these systems, it undergoes very little filtration. Runoff, containing pesticides, fertilizers, or sediments from developed areas, leaky sewage systems, and landfills can all pose significant threats. Contamination of karst aquifers can happen quickly and endangers sensitive plant and animal species, as well as humans . Open space allows precipitation to filter pollutants through vegetation before it enters karst groundwater systems (Arkansas Natural Heritage Commission).



## **OPEN SPACE PROVIDES NATURAL WILDLIFE HABITATS**

An excellent description of Northwest Arkansas' unique natural heritage is found in the Fayetteville Natural Heritage Association (FHNA) 2010 report, *Green Infrastructure Planning: Linking Arkansas Communities*. The opening introduction describes Northwest Arkansas' natural environment as follows:

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*“The area’s Green Infrastructure setting rests in scenic hills, lower rolling lands, and stream corridors near urbanizing areas....Vital water sources, such as springs and streams are evident everywhere and are part of the area’s unique and priceless natural heritage. The amazing variety of plants and animals in Northwest Arkansas is due to its being in a transition zone between the Eastern Temperate Forests and the Great Plains, where Ozark Ouachita-Appalachian Forests meet the Temperate Prairies. The hills are covered with upland oak-hickory forests and the lowlands with riverside forests and, now rare, remnants of the prairie. The karst topography eroded away to rock cliffs and glades, with numerous caves harboring rare and endangered denizens of the underground” (Boland, et al.).*

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*Bald Eagle nest in Gentry at the Eagle Watch Nature Trail, by Terry Stanfill.*

Whether protecting lowland water resources or upland forests, open space conservation is critically important for maintaining robust local genetic pools of native plant and animal species. According to those actively involved in land conservation locally:

“While some cities are beginning to incorporate connective greenways into their planning process, natural areas are being rapidly consumed in Northwest Arkansas, resulting in the fragmentation of important ecosystems, scenic areas and wildlife habitats” (Northwest Arkansas Land Trust).

Connectivity of these open spaces is also crucial for wildlife migration, and sustaining regional biodiversity. Northwest Arkansas' subterranean karst system in particular is critical to supporting wildlife, as it provides habitat for a variety of animal species, some of which are found nowhere else in the world (Boland, et al., and Illinois River Watershed Partnership).

**A NOTE FROM THE FAYETTEVILLE NATURAL HERITAGE ASSOCIATION:**

*“Since 2003, the Fayetteville Natural Heritage Association has been successful in conserving natural areas for the benefit of present and future generations. The Northwest Arkansas Open Space Plan is important to us because it advances on a regional scale the community vision for the “what” and “why” of conservation and it is the first step in expanding community involvement and support of open space conservation.” - Bob Caulk, Fayetteville Natural Heritage Association*



*Natural open spaces in Northwest Arkansas support wildlife and water resources. Above: Great Egret by Terry Stanfill;*

**OPEN SPACE ALONG FLOODPLAINS PROTECTS PEOPLE AND PROPERTY FROM FLOOD DAMAGE**

Northwest Arkansas experienced record flooding in 2011, causing a state of emergency in Arkansas. According to the National Weather Service, the drought-stricken area had become saturated, and widespread extreme flash flooding and river flooding occurred, especially in the Illinois River Basin (Northwest Arkansas Democrat Gazette).

The protection of natural floodplains along rivers and streams protects people and property from flood damage. By keeping such areas free from development, people and property are more likely to be out of harm’s way when these events occur, saving taxpayers money in insurance claims. For example, in southwest Arkansas, floods in 2015 caused more than \$14 million in damages for a single county (Insurance Journal).



**TREND**

**OUTDOOR RECREATION IS CRITICAL FOR HEALTH, WELL BEING, AND TOURISM**



***OPEN SPACE PROVIDES OPPORTUNITIES FOR PHYSICAL ACTIVITY***

Parks and open space help improve health and well-being through a number of ways, most importantly, by providing places for recreation and being physically active. For example, some of Northwest Arkansas' favorite open spaces are areas that offer hiking and mountain biking, such as Devil's Den State Park and Slaughter Pen Hollow, or more linear park systems, such as the Razorback Regional Greenway. These types of open spaces allow for recreation, thereby improving the health of those who use them through physical activity.

An estimated **10.8 percent of all deaths in the United States is attributable to physical inactivity** (Lee, et al.). According to the Centers for Disease Control and Prevention (CDC), regular physical activity is one of the most important things you can do for your health. It can help:

- Control your weight
- Reduce your risk of cardiovascular disease
- Reduce your risk for type 2 diabetes and metabolic syndrome
- Reduce your risk of some cancers
- Strengthen your bones and muscles
- Improve your mental health and mood
- Improve your ability to do daily activities and prevent falls, if you're an older adult
- Increase your chances of living longer

Increasing proximity and accessibility of parks within our communities, and establishing interconnectedness of parks through sidewalks, bicycle lanes, and trails is key to stimulating greater use of public parks (Harnik and Welle). There is also evidence that **simply providing places to exercise—parks, primarily—can help people become more physically active** (Han, Cohen and McKenzie).

The use of parks during daylight hours adds yet another health benefit by increasing sun exposure, which is important for producing Vitamin D, necessary for bone health, and possibly for preventing a variety of health conditions, including asthma and heart disease (Cohen, et al.).

***OPEN SPACE PROVIDES OPPORTUNITIES FOR SOLACE IN NATURE***

Another way in which parks affect health, particularly psychological health, is through exposure to nature. Contact with nature has been linked to a greater ability to cope with life stressors, improve work productivity, reduce job-related frustration, increased self-esteem, reduce levels of attention deficit disorder in children, improved cognitive ability, reduce aggressive behavior, and provide greater life satisfaction (Frumkin) (Louv).



Contact with nature and living in areas with trees has been linked to a greater ability to cope with life stressors and can actually make you feel healthier. Above, a family sits creekside just off the Razorback Regional Greenway, and a cyclist rides along Lake Springdale.

### **MORE TREES IN URBAN AREAS CAN IMPROVE PERSONAL HEALTH**

Open space can also come in the form of our urban parks and street trees. A 2015 study suggests that **people who live in neighborhoods with a higher density of trees on their streets report significantly higher health perception and significantly less cardio-metabolic conditions** (controlling for socio-economic and demographic factors) (Kardan, et al.). Specifically, the study found that:

“Having 10 more trees in a city block, on average, improves health perception in ways comparable to an increase in annual personal income of \$10,000 and moving to a neighborhood with \$10,000 higher median income or being 7 years younger. We also find that having 11 more trees in a city block, on average, decreases cardio-metabolic conditions in ways comparable to an increase in annual personal income of \$20,000 and moving to a neighborhood with \$20,000 higher median income or being 1.4 years younger” (Kardan, et al.).

### **OPEN SPACE PROVIDES OPPORTUNITIES FOR OUTDOOR RECREATION-BASED TOURISM**

The U.S. Fish and Wildlife Service compiles data on economic activity generated by wildlife-related outdoor recreation each year, with individual state reports available. The report for Arkansas expressed these broad numbers (U.S. Fish and Wildlife Service):

- **\$1.8 billion total spent on wildlife-related recreation**
- **\$496 million spent on fishing-related activities**
- **\$1.0 billion spent on hunting-related activities**
- **\$216 million spent on wildlife-watching activities**

Similarly, the Outdoor Industry Association also creates state-specific reports. As part of its 2012 report, *The Outdoor Recreation Economy*, the section on Arkansas activities indicates that **outdoor recreation generated \$10 billion in consumer spending, \$2.9 billion in salaries and wages, 126,000 in direct jobs created, and \$696 million in state and local tax revenue** (Outdoor Industry Association).



**GOAL**

**INCREASE ACCESS TO OPEN SPACES FOR RECREATION, HEALTH AND TOURISM**



**STATEWIDE GOAL OF INCREASING ACCESS TO OUTDOOR RECREATION**

The 2014-2018 Arkansas Statewide Comprehensive Outdoor Recreation Plan (SCORP) identifies the following set of priorities (Arkansas Department of Parks and Tourism):

- Align efforts to improve outdoor recreation with existing conservation, preservation and public good initiatives.
- Improve access to, and quality of, health and fitness related recreational areas and facilities.
- Improve the quality, accessibility, and availability of outdoor recreational resources on public lands and parks in a sustainable way.

**Northwest Arkansas can do its part in furthering these statewide priorities by directing some of the efforts of this Open Space Plan towards increasing access to the outdoors on conservation lands.**

Not all conservation projects are suitable for supporting public access, but many could be designed and programmed for such purposes.

**ACCESS TO OPEN SPACE THROUGH TRAILS AND BICYCLE FACILITIES**

As mentioned in the previous section on economic growth, the Razorback Regional Greenway is widely popular in Northwest Arkansas. It serves as the spine of a growing system of trails in the region. The recently completed Northwest Arkansas Regional Bicycle and Pedestrian Master Plan (2015) identifies potential future greenway trail connections throughout the region, many of which would connect people to parks and outdoor recreation. Currently, there are more than 150,000 people in the region who have access to trails (living within a 1/2 mile of

a paved trail, sidepath, cycle track, bicycle lane, or natural surface trail).

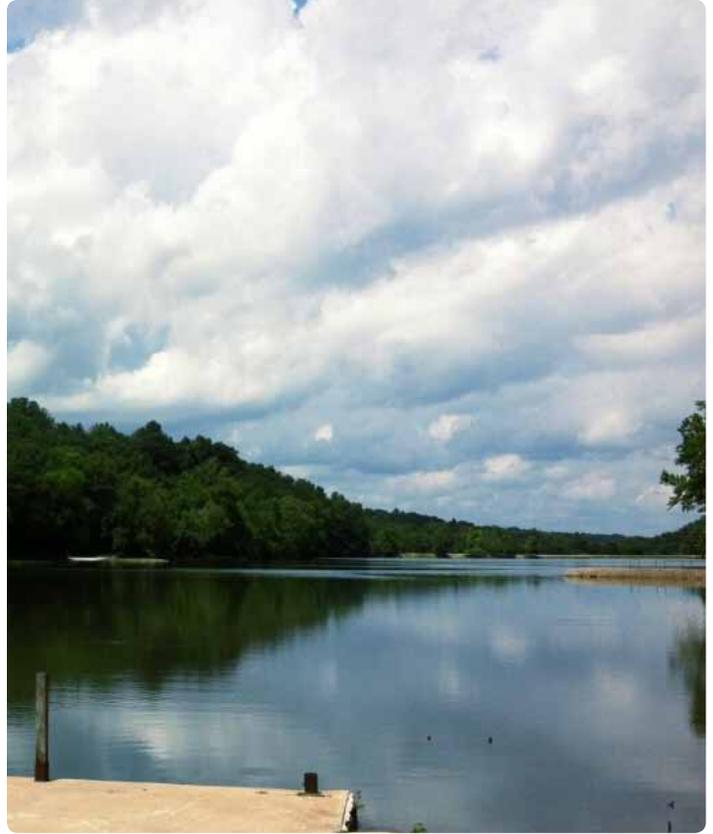
This Open Space Plan can build upon the success of the Razorback Regional Greenway and upon the ongoing work of implementing the Regional Bicycle and Pedestrian Plan, by supporting conservation projects that can be connected by trails, close to where people live and work. This will increase access to the outdoors, and in turn will help people reap the benefits of being active and spending time in nature.

**RECREATION, OPEN SPACE & NORTHWEST ARKANSAS' EQUESTRIAN COMMUNITY**

The equestrian community in Northwest Arkansas also plays a role in both recreation and open space for the region. There are more than 20 saddle clubs that are active in Washington and Benton counties, with more than 1,000 acres in horse farms alone (University of Arkansas, D.E. King Equine Program). The health benefits associated with access to nature, and the tourism value of recreation (see page 21), both apply to the region's equestrian activities. Expanding opportunities for horseback riding could also expand the positive impact of these benefits. As a local equestrian advocate explained:

“There is a very active equestrian community in NW Arkansas, but we have limited areas for trail riding...including equestrian trails would bring riders from nearby and adjoining states (Missouri, Oklahoma, Texas, Kansas) to the area, increasing tourism revenue” (Public Comment).

The equestrian community is an important stakeholder group that provides access to nature, protects large areas of land, and supports and promotes regional trails.



Northwest Arkansas has many quality recreation resources: Clockwise from top left: Horseback riding in Washington County (photo from Susan Koehler), Lake Atalanta (photo from City of Rogers), and Siloam Springs Kayak Park (photo from City of Siloam Springs).

**TREND**

**NORTHWEST ARKANSAS' HERITAGE IS UNIQUE AND WORTHY OF PRESERVATION**



***HISTORIC AND CULTURAL SITES ABOUND IN NORTHWEST ARKANSAS, BUT MANY LACK PROTECTION***

The Heritage and Cultural Resources map (see page 62) features hundreds of cultural/historical locations across Northwest Arkansas, including historic cemeteries, churches, post offices, schools, mills, river crossings, prairies, monuments, encampments, and stores. Still other sites include historic trail corridors and prehistoric archaeological areas. **While some sites with historic and cultural resources are protected within parks or as designated historic places, many of them have no protection at all.**

Others may have protection, but lack resources to restore them or properly maintain them. As local historian Rick Parker puts it, "Historic sites are disappearing under concrete slabs every day. We have failed at this point to identify what is important and protect them."

***NORTHWEST ARKANSAS' HERITAGE TRAILS OFFER OPPORTUNITIES TO CONNECT PEOPLE TO THEIR HISTORY***

The Heritage and Cultural Resources map also shows three historic trail routes in Northwest Arkansas. **These have the potential to connect many of the regions cultural and historic sites, and already do so in some sections.**

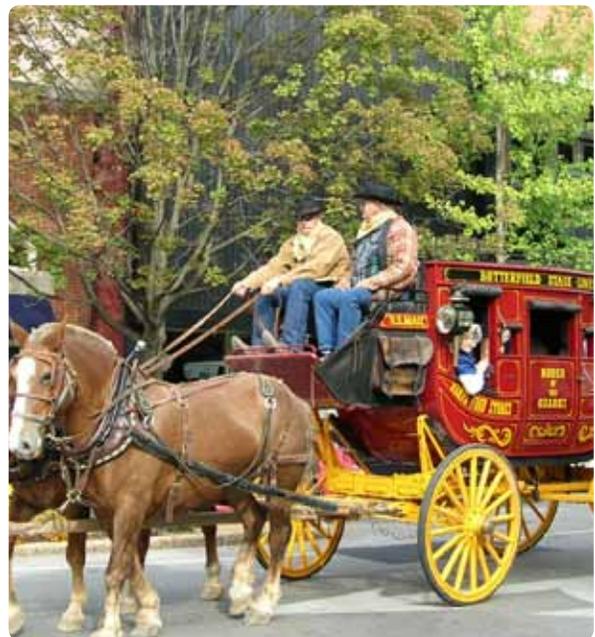
Other portions of these trails are inaccessible as private property, or have been slowly replaced by roads and highways over the last century.

*Butterfield Stage Coach Route* - John Butterfield began operating the longest stagecoach run in the history of the world in 1858. The mail coaches ran through Northwest Arkansas from Tipton, Missouri to San Francisco on a regular schedule until 1861.

Coaches visited each stop along the route twice weekly each way. This route generally ran along the ridgeline between sub-basins through Northwest Arkansas.

*Cherokee Trail of Tears* - This route follows the forced removal route of five civilized Native American Indian tribes from their homeland in the east, to the Indian Territory, today's eastern Oklahoma. The removal took place from 1837 to 1839, utilizing several different routes through Northwest Arkansas.

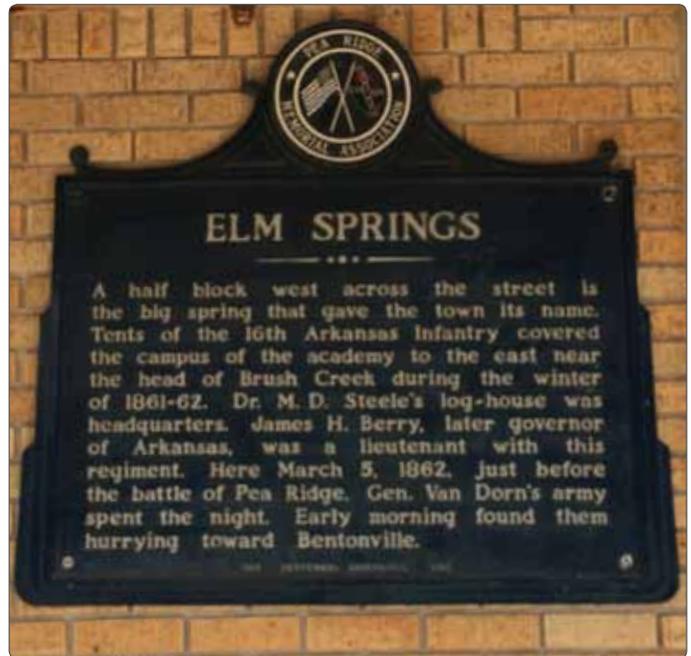
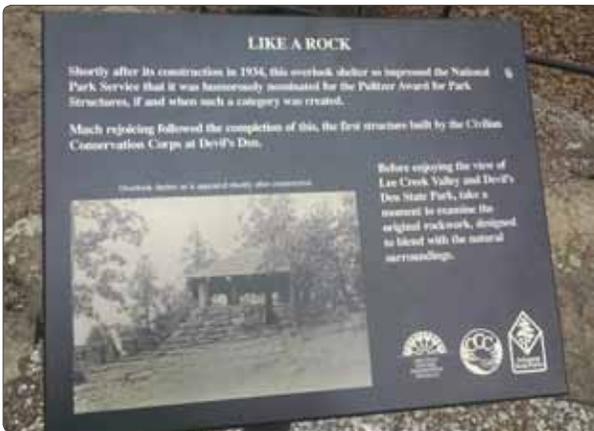
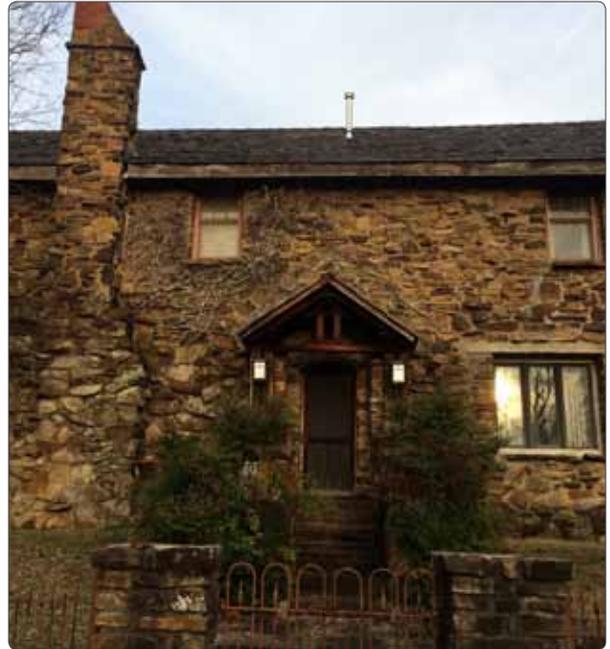
*Civil War Routes/Historic Roadways* - These troop movement routes played an essential role leading up to and in the aftermath of two major Civil War battles in Northwest Arkansas: The Battle of Pea Ridge and The Battle of Prairie Grove. These routes also had massive regional significance before the Civil War era, as routes used during both the Indian Removal Act and the Mexican–American War.



*Butterfield Stage Coach*



Open space conservation can protect and buffer Northwest Arkansas' historic and cultural sites. Examples, clockwise from top: Prairie Grove Battlefield State Park; Cane Hill Cemetery, where local elementary school students can learn about the Civil War; and a section of the Cherokee Trail of Tears.



*Clockwise from top left: Landscape restoration at Historic Cane Hill, with heirloom Arkansas Black Apple Trees; an historic home on Kessler Mountain; a historic plaque at Elm Springs; a cannon at Pea Ridge National Military Park; and a historic interpretive sign at Devil's Den State Park.*

**GOAL****PRESERVE OUR HISTORIC & CULTURAL SITES AND SENSE OF PLACE****HISTORIC AND CULTURAL SITES SHOULD BE PRESERVED ALONGSIDE NATURAL RESOURCES**

A key point made during interviews with local historians during this plan’s outreach stage (see Chapter 2) was this: **Many historic and pre-historic sites are located along water ways, creating opportunities for partnerships in conservation with water quality, wildlife and other environmental interests.** A recent example of such a site is in Elm Springs, where a major Civil War encampment was located alongside a natural spring and creek. The site offers multiple benefits for conservation, and therefore draws support from multiple interests.

According to Jami J. Lockhart, Ph.D., of the Arkansas Archeological Survey:

“Wise and deliberate planning will help us enhance the lifestyle we cherish. **Many other fast-growing areas around the country have been overwhelmed -- and second chances are infrequent when change occurs so rapidly....**I believe these plans will serve to improve the combined natural, cultural, and economic way of life we value so highly.”

**OPEN SPACE PROTECTS THE QUALITY OF HISTORIC AND CULTURAL ATTRACTIONS**

Another way in which open space enhances the quality of historic and cultural attractions is by preserving the historic context of the larger landscape surrounding the sites. The quality of experience for visitors is critical to the success of tourism for such sites, and open space planning can help protect them and buffer them from nearby development. For example, Pea Ridge National Military Park is the most intact Civil War battlefield in the United States, and a key goal for management of the park is “preserving the character of the landscape” (National Park Service).

One of the only regions in the country that is projected to grow at a faster rate than Northwest Arkansas is the Civil War historic area of Fredericksburg, VA. Unfortunately, the urban sprawl that has already occurred in that region has destroyed the historic and cultural context for many of its key sites. Northwest Arkansas would do well to learn from the mistakes of other regions by not only preserving historic sites, but also by better preserving open spaces around key historic and cultural sites.



*Northwest Arkansas can learn from the mistakes of other fast-growing regions with rich Civil War history. At left, a Civil War monument in Fredericksburg, VA, has lost the historic context of the landscape. Photo by Brain Swartz.*

**TREND**

**FARMLAND PROTECTION IS KEY TO LONG-TERM VIABILITY OF AGRICULTURE IN NORTHWEST ARKANSAS**



**TRENDS RELATED TO FARMLAND**

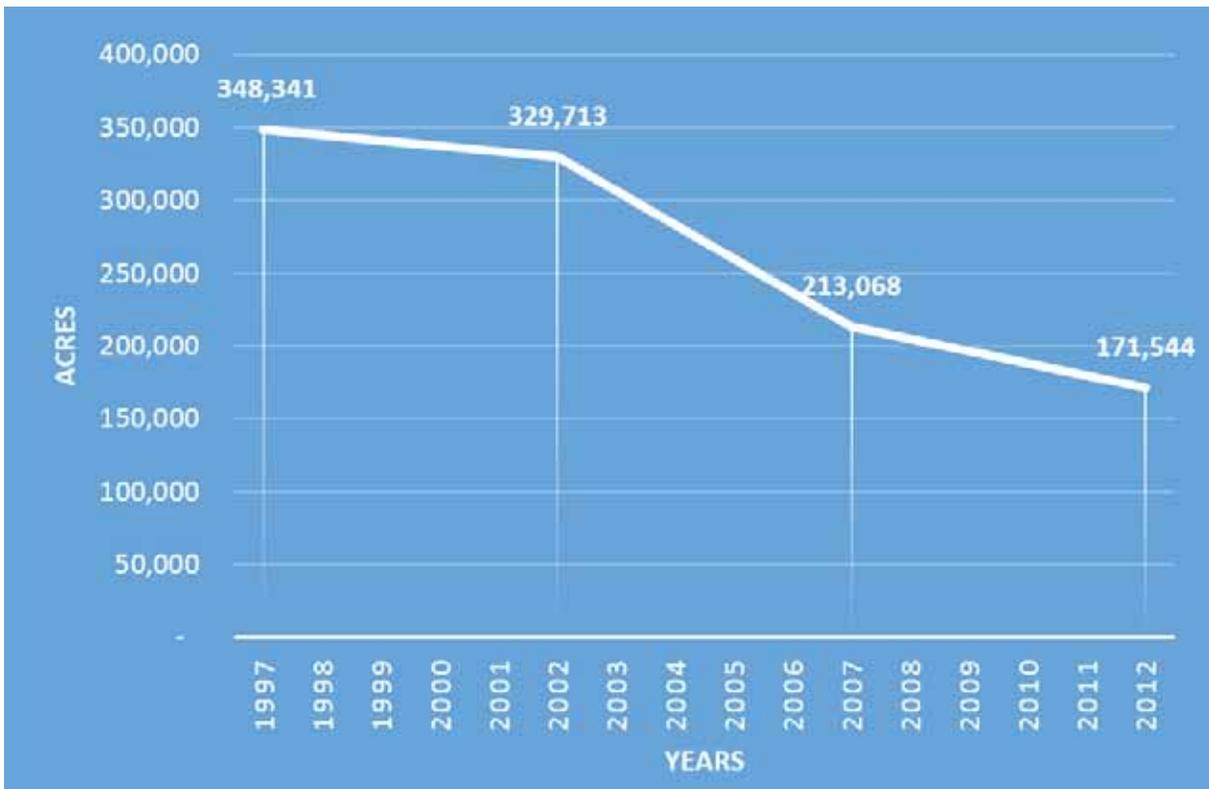
**The U.S. loses nearly 50 acres of farmland every hour, with 37% of America’s developed land converted in the last three decades**

(American Farmland Trust). At the same time, worldwide population is estimated to increase 33% between 2015 and 2050, from 7.3 billion to 9.7 billion, indicating a massive potential for growth in food demand (United Nations). Feeding a growing world population requires investments in rural areas, especially in areas where fast growth and development impacts farmland. In fact, it is estimated that worldwide agricultural production will have to increase by around 60 percent by 2050 to feed the planet (United Nations).

Northwest Arkansas experienced a decrease in total cropland from 1997-2012 (see chart below), though total land in farms remained relatively stable, dipping mostly during the pre-2008 housing boom. The acquisition of agricultural land for residential development diminished open space on the outskirts of growing cities such as Bentonville, Centerton, Rogers, Springdale, and Fayetteville. Speculation and development outpaced demand, and development was virtually halted by the mortgage crisis of 2008. According to stakeholder interviews with members of the Farm Bureau, the bankruptcies and foreclosures of that mortgage crisis left hundreds of acres of agricultural land stripped, eroding, and vacant to this day.

**TOTAL CROPLAND IN BENTON AND WASHINGTON COUNTIES, 1997-2012**

Source: U.S. Department of Agriculture “Census of Agriculture - County Data.” National Agricultural Statistics Service (1997, 2002, 2007, 2012)



*“What’s not seen is that as agricultural land disappears in our area and the U.S., it is most likely re-appearing or being developed in another country. Some of these countries do not have the same standards of food production and safety that we have in the U.S. Agricultural production in the U.S. is in my mind an important part of national security. It is a global economy and there will be many more people to feed in the next 30 years. To me, it’s just fundamental to protect food production in our country and our area.”*

**- Johnny Gunsaulis, University of Arkansas Cooperative Extension Service Benton County**

Other trends affecting regional agriculture have less to do with land development and more to do with the nature of the practice itself. Farmers in Northwest Arkansas have a proud heritage and rich history. They were once the leading producers of a variety of products such as dairy, apples, and strawberries, and today, they are global leaders in livestock and poultry. In fact, there is now a range of agriculture activity in Northwest Arkansas, with Tyson Foods, Cargill and George’s Inc., as big producers with an international presence, to active local farmer’s markets with local growers and buyers at weekly markets. As Benton County Farm Bureau President, Bob Shofner, puts it, **“It takes all sizes and types of production agriculture to feed this nation. The farm families in this region are providing the food, fiber and fuel that this country and world needs to survive, and are very proud of their role in production agriculture.”**

Another interesting finding about agriculture in the region comes from the *Northwest Arkansas Regional Food Assessment*, which states that fewer than 2 percent of farms sell vegetables; less than 1 percent of farms have land in orchards (Karp Resources).

***THE NEED TO INVOLVE RURAL FAMILY FARMS IN OPEN SPACE PLANNING***

**Planning in the region for both conservation and development needs to include the voice of rural family farms, as they are the ones who own and operate and make a living from this key type of open space.** For many farmers, selling their land may be their only option for retirement, or it may simply be their prerogative. In any case, the role of this Plan should be to provide those land owners with the information they need to make informed decisions about their options for conservation, should they wish to pursue it. **This Plan aims to expand choices for farmers who are interested in conservation, rather than restricting their right to sell in any way.**

*“Family farmers, ranchers, and rural residents that own these remaining open spaces have a wide range of reasons why their private property is still in open space today. The right to make their own personal decision to use or sell their farmland/open space is entirely their decision”.*

**- Bob Shofner, Benton County Farm Bureau President**



**GOAL**

**SUPPORT AGRICULTURE & FOOD PRODUCTION**



**OPEN SPACE PROGRAMS SUPPORT FARMLAND PRESERVATION**

The rural landscape that surrounds NWA’s built environment is perhaps the most recognizable and widespread component of the region’s open space network, and it is the region’s farmers who are the owners and stewards of most of the current open space we see today. The degree to which their practices help or hinder natural resources is critical to the long-term health of the region’s water resources and soils. Farmers rely on organizations such as Farm Bureau, the Cooperative Extension Service, the Conservation Districts, and Natural Resource Conservation Service for information on efficient farming practices, conservation practices, and helping them stay in compliance with state and federal laws regarding fertilization of fields, the use of pesticides, and proper handling of farm mortality. Programs such as the Environmental Quality Incentives Program (EQIP) and Best Management Practices help protect water and land resources.

According to the *Northwest Arkansas Regional Food Assessment*, **“The continued viability of agriculture in Northwest Arkansas depends significantly on three interdependent factors: farms remaining economically viable, farmland staying in production (and out of development), and new farmers succeeding retirees”** (Karp Resources). Johnny Gunsaulis, of the University of Arkansas Cooperative Extension Service Benton County, describes the decisions that farmer’s face best: “There comes a point in each farmer’s life when he steps off the tractor for the last time or sees the last load of cattle or truck load of chickens going to market. At that point, they are faced with what to do with the operation if there isn’t another generation coming behind them to take over. Most of them would probably like to think

of the land they have worked for so long staying in agriculture production. Some may not worry about it. **Either way, they’d like to be able to realize the fair market value of their life-long investment just like any other business owner would. If it were possible, there would be a lot of satisfaction for most farmers to be able to be fully compensated for their investment while knowing that it would be preserved at least as open space if not a farm.”**

**THE FARM BILL & VOLUNTARY CONSERVATION**

**This Plan includes a conservation toolbox and list of resources in chapter 4, followed by an appendix with additional funding sources. One of those listed is the Farm Bill: “For decades, the voluntary conservation efforts of farmers, ranchers, forest landowners, and other private landowners have been supported by a series of federal laws collectively known as the Farm Bill. The Farm Bill is the most important tool enacted by Congress for conserving habitat on private lands. Farm Bill conservation programs fund easements to protect agricultural lands, efforts to protect at-risk species on working lands, technical advisors to help landowners improve their operations while conserving natural resources, and much more” (From the 2014 Farm Bill Field Guide to Fish and Wildlife Conservation by the North American Bird Conservation Initiative, U.S. Committee).**



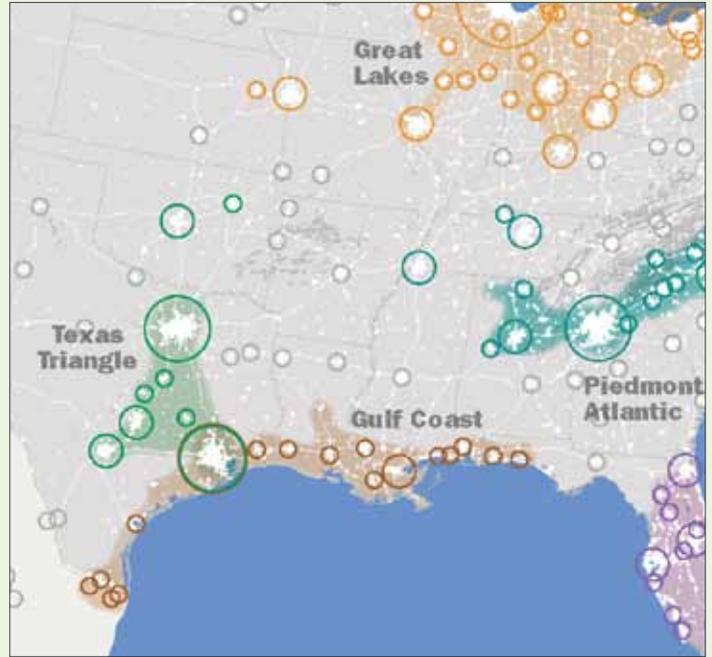
*Benton and Washington counties were known for local produce through much of the 20th century. Above: A typical picking crew on a farm near Gentry in the 1920s (image credit: Rick Parker). It was not uncommon for farms to advertise for 1,500 or more people to pick their fruit. The local climate, however, proved challenging over the years to sustain the production of fruit. Below: Most farms in Northwest Arkansas today are in hay and livestock.*



**THE BIG PICTURE: THREE DEVELOPMENT & OPEN SPACE TRENDS IN THE U.S.**

**1. There is a shift in economic development strategies away from competition between cities, instead focusing on competition between regions.**

This is key to open space planning because natural systems such as those related to water, wildlife, and natural habitats are not bound by jurisdictional borders. Instead, **open space is a regional issue by nature, and stewardship of the natural environment requires regional coordination.** Furthermore, communities that work together to attract regional investment would do well to protect open space and promote its benefits, as businesses and employees prefer areas that offer a high quality of life. For more on this trend see the study, *Megaregions - America 2050* (Regional Plan Association).



Section of the U.S. Megaregions Map. Source: *America 2050*, a program of Regional Plan Association.

**2. People and businesses are moving from rural and suburban areas to more urban areas.**

According to a 2013 survey by the National Association of Realtors, the demand for the conventional suburban development patterns that predominated in the second half of the 20th century is shifting to more walkable, mixed-use communities—especially among the higher-educated work force that Northwest Arkansas businesses aim to attract. The survey also showed that walkability and shorter commutes are key to community preference, and that people are willing to have smaller yards if it means they can take more trips by foot (assuming they could still have a single-family home as opposed to an apartment or townhouse). This is not to say that a variety of living situations should not be planned for and provided—rather, **this trend is relevant to open space planning because as the demand for automobile-dependent development decreases, more compact neighborhoods and communities can take their place, leaving more room and opportunity for open space.** For more on this trend, see the report, *Core Values: Why American Companies Are Moving Downtown* (Anderson, et al.) and the *National Community Preference Survey* (National Association of Realtors).

*The neighborhood has a mix of houses and stores and other businesses that are easy to walk to.*

60%

35%

*The neighborhood has houses only and you have to drive to stores and other businesses.*

**Neighborhood Preferences:** A majority of Americans prefer a neighborhood with a mix of houses, stores and businesses that are easy to walk to over a neighborhood with houses only that requires driving to stores and businesses (National Association of Realtors).

### 3. Local support for land conservation is steadily increasing.

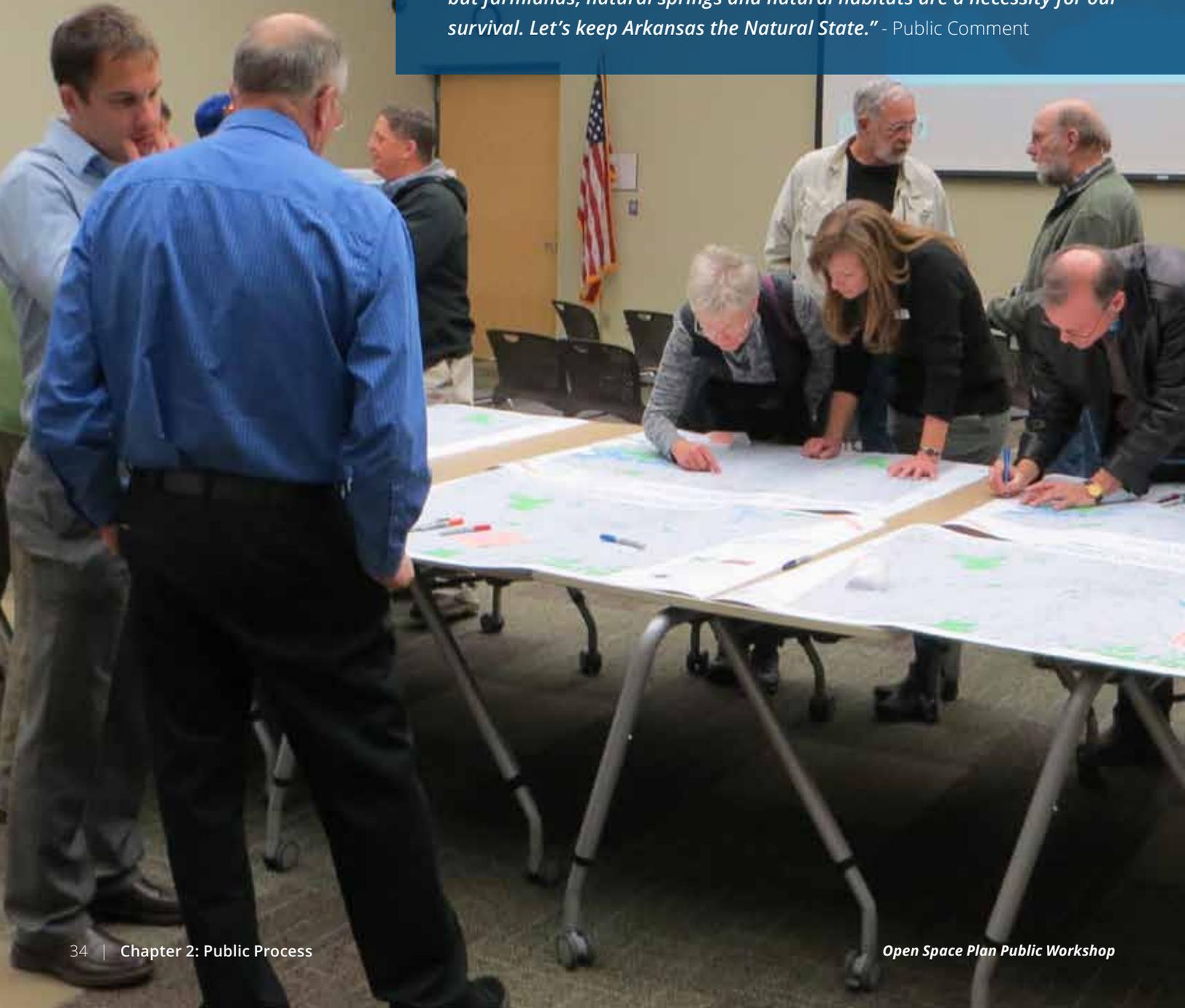
Across the country, dozens of state and local governments vote each year to raise public funds in support of land conservation (on average, there have been 89 measures per year between 1988 and 2014). The total amount of conservation funds approved by local measures in the U.S. has increased dramatically, with levels rarely exceeding \$2 billion in the 1990s, to **the highest levels on record at more than \$13 billion in 2014**. Trends show that political affiliation has not played a role in such measures, with support from Democrat, Republican and independent voters alike. This is significant information for decision-makers to take into account, specifically when weighing options for funding open space initiatives. For more on this trend, see the *LandVote Database* (Trust for Public Land).



# 2

## Public Process

*"We need to preserve our Natural State. Development is necessary for growth but farmlands, natural springs and natural habitats are a necessity for our survival. Let's keep Arkansas the Natural State."* - Public Comment



## OVERVIEW

This chapter summarizes the public outreach and involvement that took place during the development of the Northwest Arkansas Open Space Plan, through committee meetings, stakeholder and public outreach, comment forms, and online resources.

### THE NWARPC

This planning process originated with a grant opportunity through the Walton Family Foundation. The NWARPC was awarded the grant, building upon their past successes in regional planning. As a regional organization, the NWARPC membership includes representatives from all 32 local communities in the region, and Benton and Washington counties. The commission staff presented updates about the Open Space Plan to the commission membership during the planning process. NWARPC staff also managed the planning consultant and coordinated logistics for all meetings, press releases, and presentations outlined on the following pages.

### STEPS IN THE PLANNING PROCESS

- 1 Project Initiation**  
(Nov 2014 - Jan 2015)
- 2 Inventory, Assessment, & Mapping**  
(Nov 2014 - April 2015)
- 3 Steering Committee Meetings**  
(Dec 2014 - Dec 2015)
- 4 Public Involvement** (Jan-Dec 2015)
- 5 Map Creation, Analysis, & Recommendations**  
(March-Dec 2015)
- 6 Implementation Strategy**  
(July-Sept 2015)
- 7 Draft Plan**  
(April-Sept 2015)
- 8 Final Plan**  
(Oct 2015 - Jan 2016)



### PROJECT STEERING COMMITTEE

The NWARPC had support from a wide variety of stakeholders, most notably the members of the project Steering Committee, who provided guidance throughout the planning process, with five main meetings covering these topics:

1. Project kick-off, overall vision and goals, and public outreach strategy (December 2014)
2. Stakeholder outreach and site tours of successful conservation projects (March 2015)
3. Prioritization methodology and implementation strategy (June 2015)
4. Draft Plan review and prioritization/ implementation update (August 2015)
5. Final Plan and next steps (December 2015)



*Project Steering Committee members participating in a site tour of Partner's Lake at the Illinois River Watershed Sanctuary and Learning Center, as a model conservation site.*

### ORGANIZATIONS WITH REPRESENTATIVES ON THE PROJECT STEERING COMMITTEE

- Arkansas Archeological Survey
- Arkansas Forestry Commission
- Beaver Watershed Alliance
- Beaver Water District
- Benton County
- City of Bentonville
- City of Fayetteville
- City of Gentry
- City of Rogers
- City of Siloam Springs
- City of Springdale
- Farm Bureau
- Fayetteville Natural Heritage Association
- Goddard Geographics
- Illinois River Watershed Partnership
- Local Historians
- National Park Service
- The Nature Conservancy of Arkansas
- Northwest Arkansas Council
- Northwest Arkansas Land Trust
- NWA Regional Planning Commission
- United States Army Corps of Engineers
- University of Arkansas – Planning
- University of Arkansas – Extension Service
- Washington County

## PROJECT STAKEHOLDERS

In addition to the project steering committee, representatives from many other area organizations and agencies participated in the planning process. More than 60 stakeholder representatives participated in-person during stakeholder interviews and technical resource group meetings.



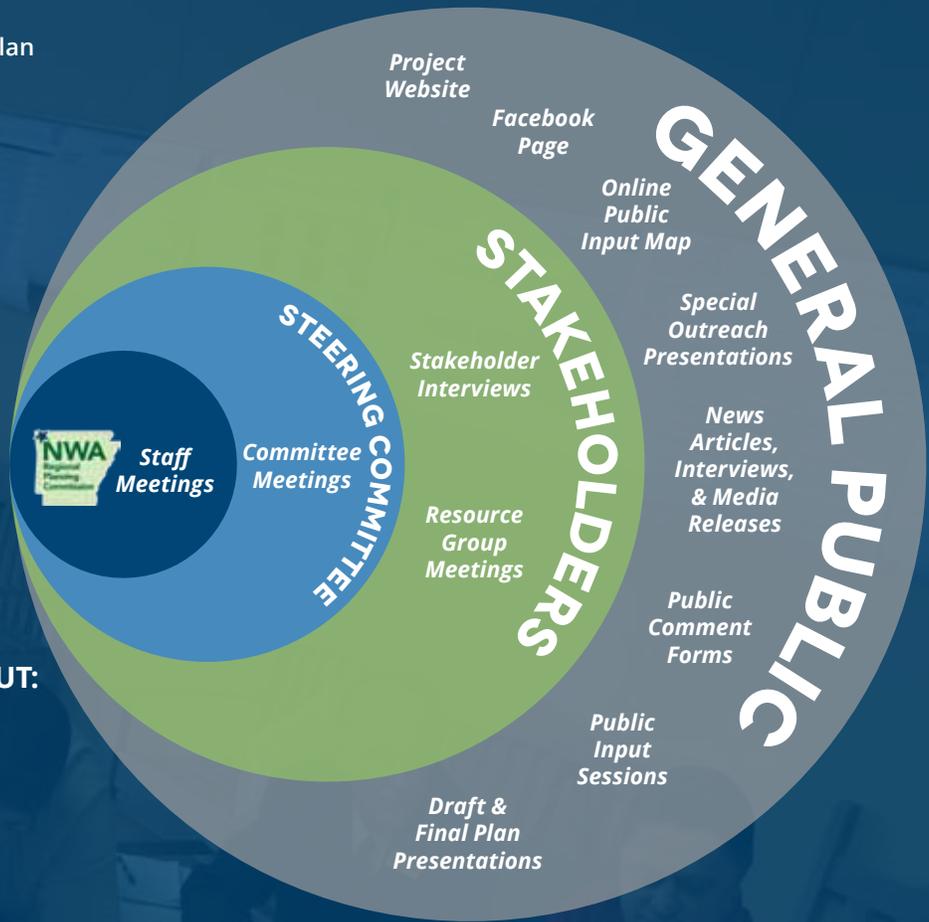
*Project stakeholders participating in a March 2015 technical resource group meeting.*

## PROJECT STAKEHOLDER ORGANIZATIONS

- **Local County Governments**
- **Local City Governments**
- **Media**
- **Utility Companies**
- **Corporations**
- **Conservation Organizations**
- **Sustainability Organizations**
- **Environmental Organizations**
- **Historical Societies**
- **Bicycle Clubs**
- **Garden Clubs**
- **Bird & Wildlife Clubs**
- **Horse Clubs**
- **Schools**
- **Engineering Firms**
- **Land Trusts**
- **Real Estate**
- **Trail Organizations**
- **Builders Associations**
- **Outdoor Retailers**
- **Museums**
- **Federal Agencies** (National Park Service, U.S. Fish & Wildlife Service, U.S. Forest Service, U.S. Geological Survey, U.S. Department of Agriculture, U.S. Army Corps of Engineers)
- **State Agencies** (Arkansas Game and Fish Commission, Arkansas Natural Heritage Commission, Arkansas Department of Parks & Tourism, Arkansas State Parks, Arkansas Department of Environmental Quality, Arkansas State Highway and Transportation Department, Arkansas Natural Resources Commission)



# Public Process Snapshot



KEY TYPES OF MEETINGS & PUBLIC INPUT:

25	STEERING COMMITTEE MEMBERS, WITH 5 OFFICIAL MEETINGS
60+	PARTICIPANTS IN STAKEHOLDER INTERVIEWS AND MEETINGS
7	OPEN HOUSE PUBLIC WORKSHOPS
312	PARTICIPANTS AT OPEN HOUSE PUBLIC WORKSHOPS
350+	COMMENTS ON THE ONLINE COMMUNITY FAVORITE PLACES MAP
392	UNIQUE VISITORS TO THE PROJECT WEBSITE PER MONTH (AVERAGE)
260+	LIKES ON THE PROJECT FACEBOOK PAGE
6	DRAFT AND FINAL PLAN PRESENTATIONS
818	PUBLIC COMMENT FORMS

**PROJECT WEBSITE:  
WWW.NWAOPENSOURCE.COM**

The project website served as the main public interface for the Plan, with information about the overall project and process, the benefits of open space, how to participate, and project resources, such as presentations, maps, project posters, and links to supporting organizations and similar planning efforts. A key feature of the website was the online public input map, described below. On average, the project website had about 400 unique visitors per month during the planning process.

**PROJECT FACEBOOK PAGE**

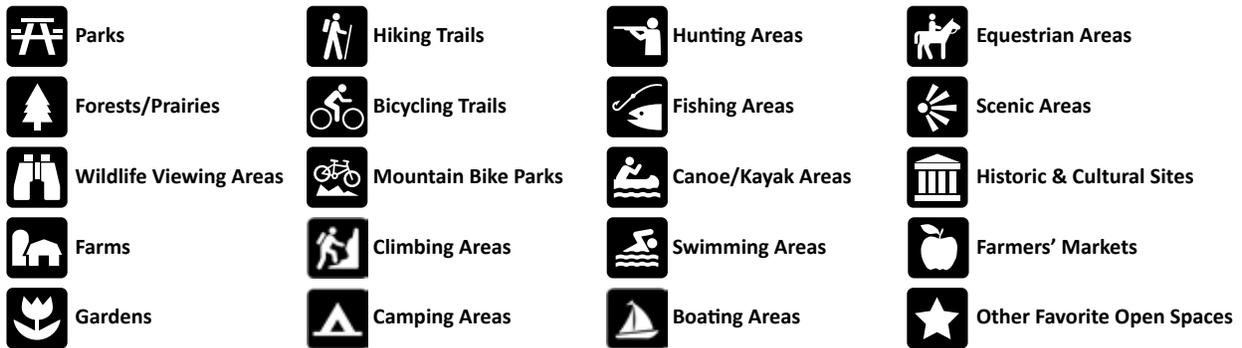


The project Facebook page served as a tool for outreach, announcing public input opportunities, and sharing photos from project-related events.

There were 268 likes on the project page as of the Draft Plan in September 2015. The total reach of certain sponsored posts for public workshops reached into the thousands.

**ONLINE INPUT MAP: WWW.NWAOPENSOURCE.COM/PARTICIPATE**

The online input map was designed to allow people to make site-specific comments about their favorite open spaces in Northwest Arkansas. People were asked, *“What are your favorite open spaces in Northwest Arkansas? Where do you like to hunt, fish, hike, bike, canoe, kayak, swim, bird watch, ride horses, garden, play, and ponder? Where are the best views and most scenic landscapes? Where are your favorite old churches, cemeteries, battlefields, forests, and parks?”*. This ‘favorite places’ map received more than 350 comments about a variety of types of open space, including the following:



The input from this mapping exercise was valuable for use in several ways. First, it provided an opportunity for people to not only contribute their own thoughts and ideas about Northwest Arkansas’ open space, but it also allowed people to see how others in their community feel about the region’s open spaces. Second, the input can inform future opportunities for open space conservation. Refer to this Plan’s Map 4.3 to see how the points provided line-up with the priority open space mapping analysis. To see individual comments submitted by the public, visit the archived versions of this map at the link above.



### ***SPECIAL OUTREACH PRESENTATIONS***

Since the start of the project, staff at the NWARPC have been available to make presentations to any group that wishes to learn more about the Plan and planning process. The project website says, “If your group, neighborhood, school or organization would like to request a presentation, please contact us,” next to a comment form for general questions, comments and ideas. Between January 2015 and September 2015, the NWARPC staff presented on 32 separate occasions to local and regional community groups and organizations (in addition to the official project workshops and presentations described on the following pages).

### ***NEWS ARTICLES, INTERVIEWS, AND MEDIA RELEASES***

There was periodic coverage in the press for this Plan since it began in early 2015. The first news articles came out in conjunction with the January 2015 public workshops, with various other press releases, radio interviews, and stories being released throughout the process.

### ***STAKEHOLDER INTERVIEWS & TECHNICAL RESOURCE GROUP MEETINGS***

In March 2015, the NWARPC and project consultants led a series of stakeholder interviews and technical resource group meetings. **Twenty-two people were interviewed, and more than 60 people representing a wide range of interests participated in resource group meetings** (see pages 36 and 37 for the types of participating organizations). The interviews and meetings were structured around the key topic areas of:

- Natural Environment
- Built Environment
- Heritage/Cultural Resources
- Outreach
- Implementation

Key themes that emerged from these interviews and meetings included:

- **The over-arching importance of Northwest Arkansas’ rivers, lakes, streams, and wetlands:** These areas were identified as especially important not only in terms of water quality and their importance to wildlife, but also because they overlap with cultural, historic, and pre-historic sites throughout the region (due to the necessity of past cultures to gather and settle near water resources).
- **The development pressure that is expected to radiate out from the existing urban core:** Future growth was especially noted west of the I-49 corridor between Fayetteville and Bella Vista.
- **The high value and historic and cultural significance of Northwest Arkansas’ cemeteries, heritage trails, and Civil War sites - and the threat of losing them as the region grows and develops:** Site examples included prairie remnants, Confederate encampments, and historic downtowns.
- **The data that is available to help support the Open Space Plan:** Examples of important data sets that emerged from these meetings include the Arkansas Natural Heritage Commission’s data on biodiversity and the Arkansas Archeological Survey’s data on sensitive sites.
- **The need for outreach to continue beyond the planning process:** Participants agreed that outreach and education about open space should continue into the implementation stage to further build public support for conservation.
- **The key components in implementation:** A strong vision, a ‘toolbox’ of conservation strategies, a dedicated funding source, a leadership structure, and best practice illustrations were identified.



*"Just a few years ago we had more open fields, pasture land. Today those same areas are subdivisions." - Jackie Crabtree, Mayor of Pea Ridge*

*"The rapid population growth of the region has led to extensive development of housing, shopping and other entities necessary to support the uptick in citizen numbers. Look in any direction and such changes are easy to spot." - Ron Cox, Botanical Garden of the Ozarks*

Clockwise from the top left: Stakeholder group meetings that focused on the natural environment, the built environment, heritage/cultural resources, outreach, and implementation.

### PUBLIC COMMENT FORMS

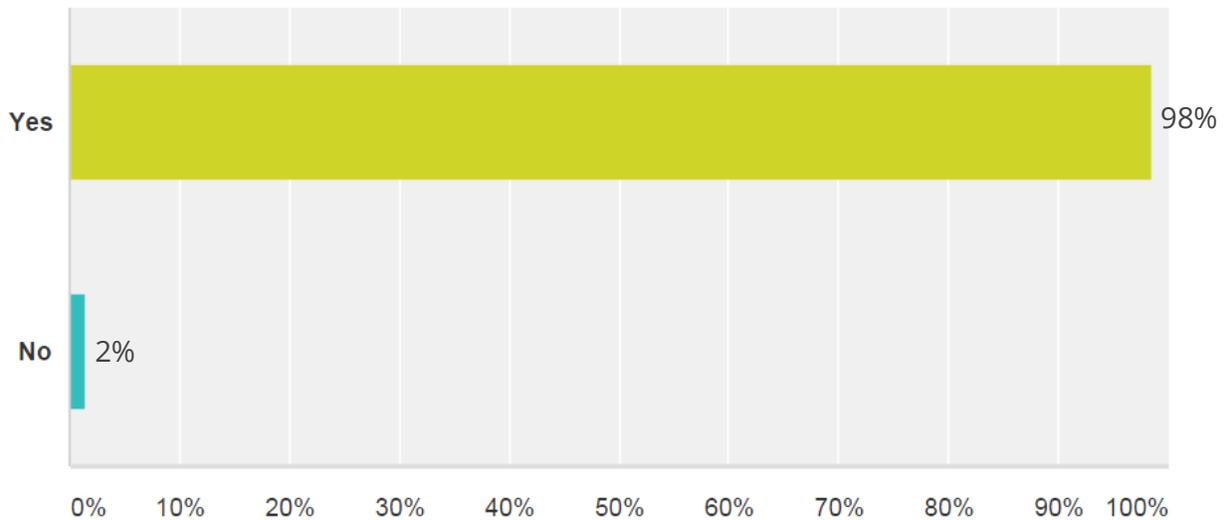
The public comment form was active between January 2015 and October 2015. It was available online through the project website and in hardcopy at each of the Open Space Plan meetings, presentations, and public workshops described throughout this chapter. People throughout Northwest Arkansas were encouraged to fill-out these forms through the mass-email lists of project committee members and stakeholders, through social media (Facebook), and traditional media (newspaper articles and press releases).

There were a total of **818 respondents** to the public comment form. Although not statistically valid, the results that follow still reflect the voices of 100s of Northwest Arkansas residents who have an interest in the region’s open spaces. Summary responses are displayed below; for full results, please contact the NWARPC.



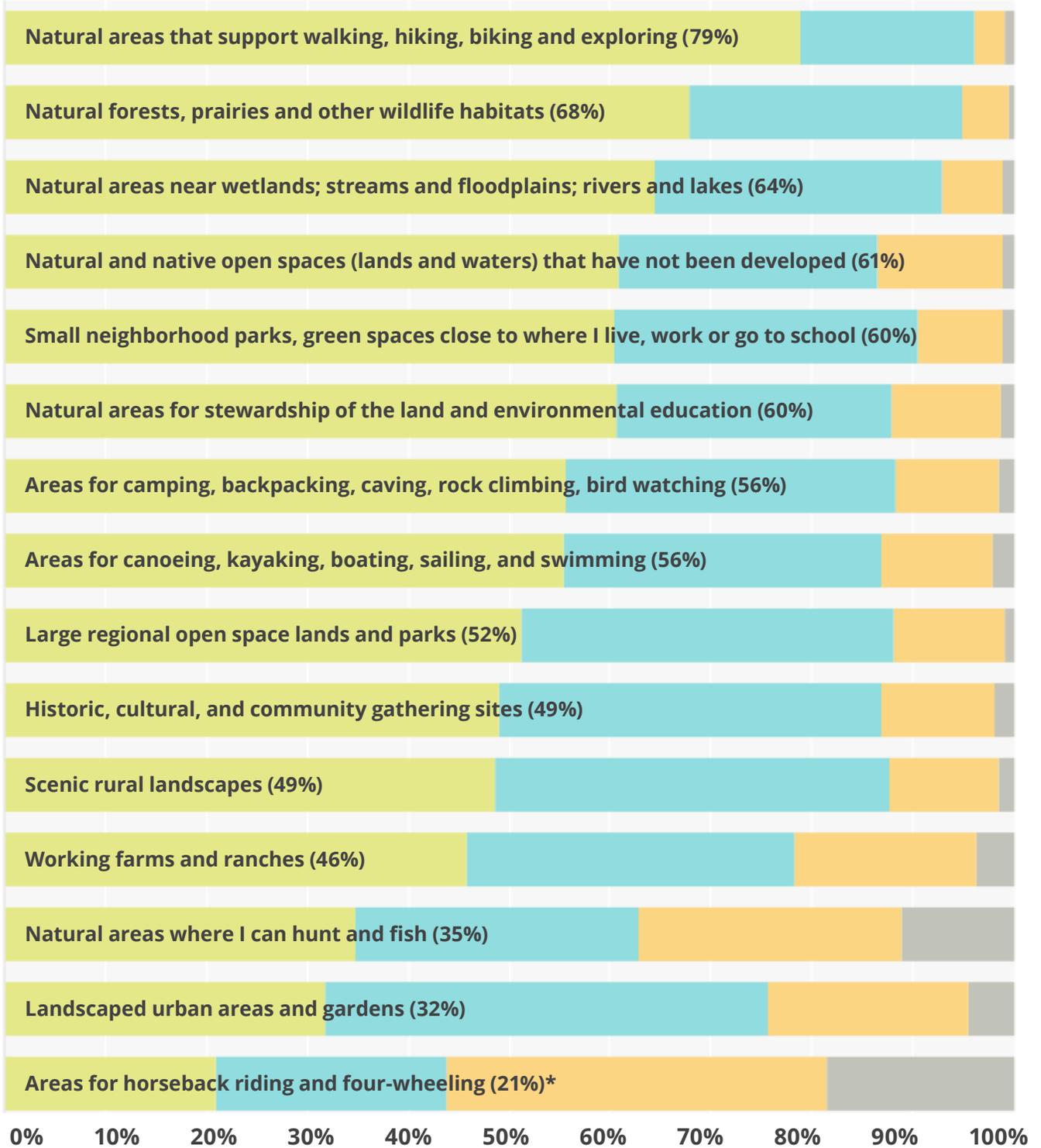
*Public workshop participants in Siloam Springs fill out the public comment form.*

***In general, do you support the idea of communities in Northwest Arkansas working together to protect certain open spaces as described [on opposite page]?***



**Of the following examples, what do you feel is important in terms of open space in Northwest Arkansas? (percentages labeled below are for the “very important” category)**

**Very Important    Important    Neutral    Not Important**



*\*Future comment forms should not group horseback riding and four-wheeling, as the two activities differ in terms of the types of open space where they can take place.*



**In the previous question, some people selected 'other' and entered a response** (sample responses below).

- Horse areas and horse trails
- Dark skies for stargazing
- Rocky bluffs
- Birding areas
- Dog parks
- Golfing
- Trails, sidewalks, and mountain biking singletrack
- Designated recreational areas for sports and programs
- Historic and cultural site preservation (barns, buildings, cemetery care)
- Honey bee and butterfly habitat/pollination spaces and gardens
- Community gathering sites/pocket parks in urban areas
- Areas accessible to all abilities
- Urban farms and community gardens

**What in your opinion defines the character of Northwest Arkansas?** (sample responses below)

"The natural areas that allow for people to get outdoors with their families."

"Independent minded, resourceful, hard working, friendly, progressive, gritty."

"The people, the natural beauty, the many churches, the high employment and the wonder of it all!"

"I moved here from out of state, and the thing I really loved about NW Arkansas was all of the natural parks and nature preserves. Even in some of the more developed city areas attention has been paid to provide beautiful park spaces and that is REALLY important to keep cities beautiful."

"Beautiful natural landscapes, small rural communities, close communities"

"NW Arkansas is a beautiful area. We have many tourist attractions and educational as well as, business opportunities. I would like to see more opportunity for these ventures in smaller town areas and not just the I-49 corridor. We have wonderful citizens in the area and the more attractive and family and business friendly our area is, all the better."

"I think it is incredibly important to have attractions for single, young professionals as well as the numerous families with young children. That will help attract and retain young talent and ensure there isn't a 'brain drain.'"

"One of the reasons that I moved my family to NWA was because of the immense outdoor opportunities presented by these natural landscapes. I know I can go a short distance in any direction and find outdoor opportunities to enjoy; hiking, kayaking, biking, caving, national forest exploration, camping (camp site & national forest). I love the natural beauty of NWA, I'd do anything to protect it."

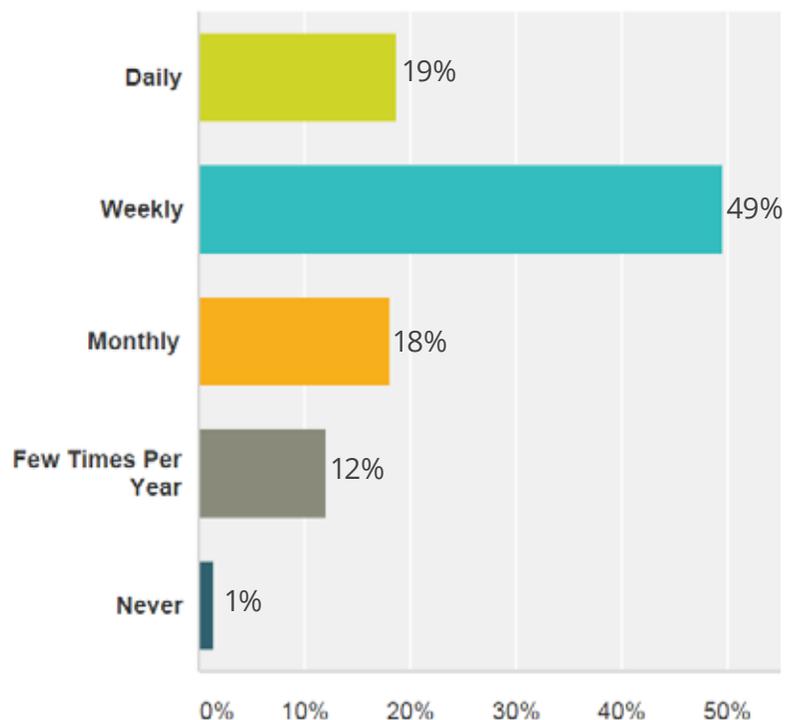
"Natural and Beautiful"

"A growing community that values its land and resources."

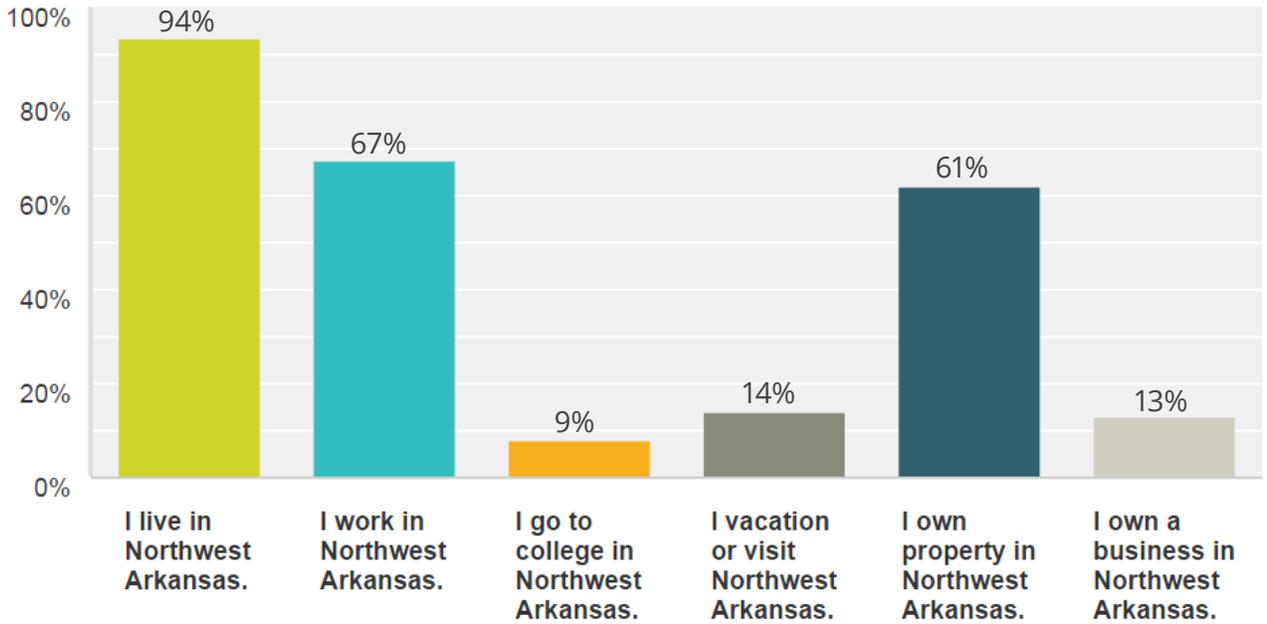
"We should use the lessons learned from areas that had their growth spurts decades before we did. Preserve nature now, so we don't have to fix that later."

"Big city amenities, hometown America feel, rural spaces close and abundant."

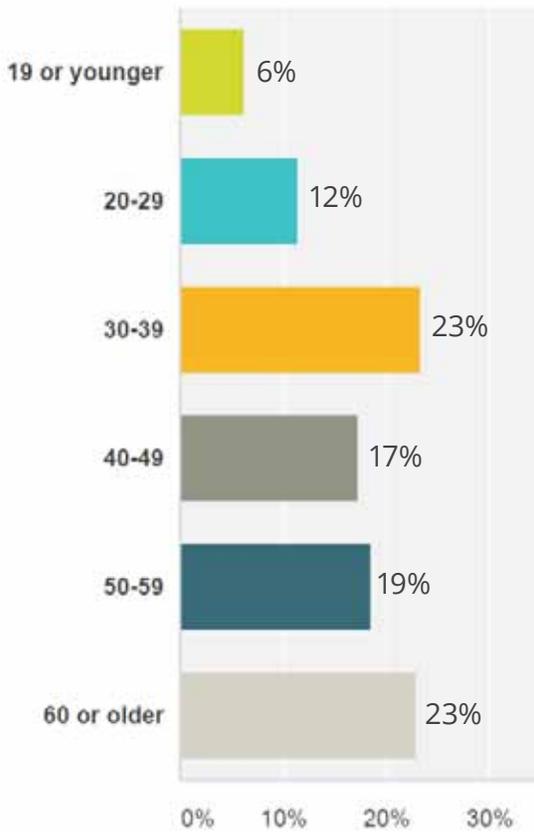
**How frequently do you use public parks and open space?**



**What is your connection to Northwest Arkansas? (Select all that apply)**



**What is your age?**



**What is your gender?**

- Female (53%)
- Male (47%)

**Do you have children under the age of 19?**

- No (64%)
- Yes (36%)

**If yes, what ages? (select all that apply)**

- Ages 0-4 (38%)
- Ages 5-11 (44%)
- Ages 11-15 (35%)
- Ages 16-18 (24%)



***Are there other comments you would like to share about the Open Space Plan initiative?***

(sample responses below)

"As a resident of the area, I'm pleased that we have the foresight to plan NOW and not wait on this very important topic."

"Despite the huge growth in the last 15 or so years, this area has been able to retain its "natural" feel. That's what draws people here. So we need to find ways to keep it that way."

"I think this is one of the best ideas that government officials have come up with in a long time. It is also great that you are reaching out to the citizens of the area."

"I believe this initiative is so, so important. We've lived here 9 years and seen the area change dramatically. Too little thought is being given to preserving the natural landscape -- for wildlife, and simply for humans to enjoy....I worry that we will end up looking like a homogenized Anytown, USA."

"It is important that we retain open spaces in the midst of our growth, not become like many of the bigger cities in America who have lost that. It makes our area inviting to us and to others."

"Save the farms, orchards, etc. not just "wilderness" areas. Save places that will affect people's daily routines, not just what they do on the weekends."

"Glad it is being looked into before it is too late...Once they're gone they are very difficult to recover, take the opportunity to obtain open space."

"Open space, parks, hiking trails, campsites, are very important for the future of the state and the people who live here. It is heartbreaking to see all the farmland becoming subdivisions with no planning of trees and green spaces and parks."

"I grew up in NW Arkansas and I'm worried about the effects of unrestrained development and population growth on the landscape, streams, the environment in general, historic sites, farming life, and quality of life....I am especially concerned about increased runoff and flooding from additional pavement, loss of forest and other vegetation, and the loss of wetlands due to development, and the degradation of stream quality and biodiversity."

"I hope that what rural farming areas we have left will be protected from being turned into commercial/industrial zones."

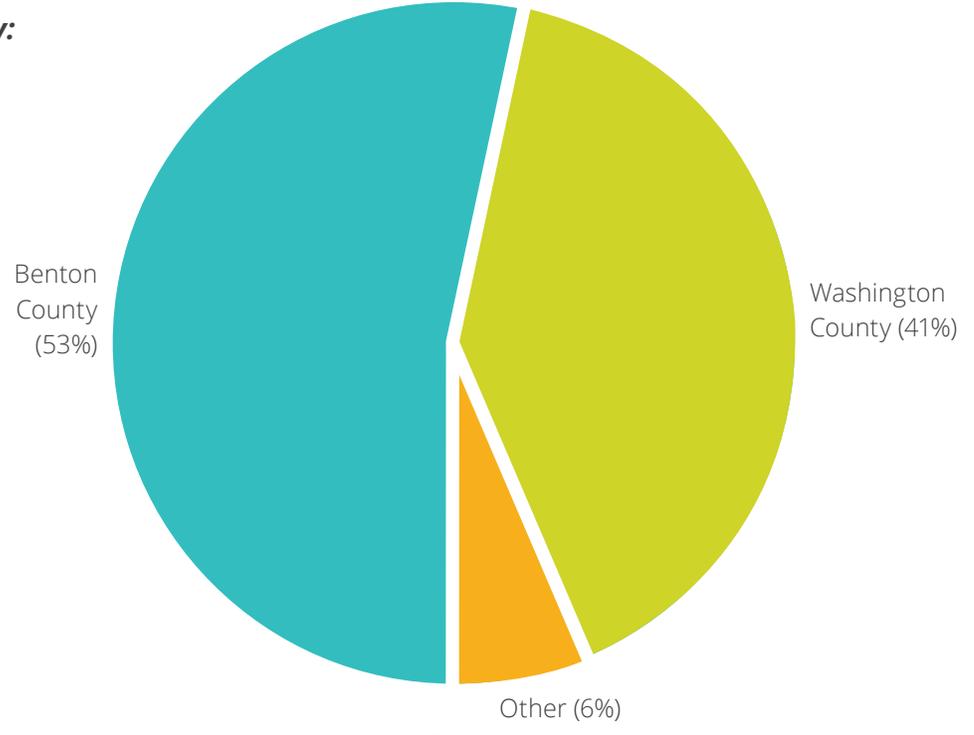
"We need to make sure that green space is also kept as wild, natural space and that public green spaces and parks are not all manicured."

"Don't forget us out here in the rural areas."

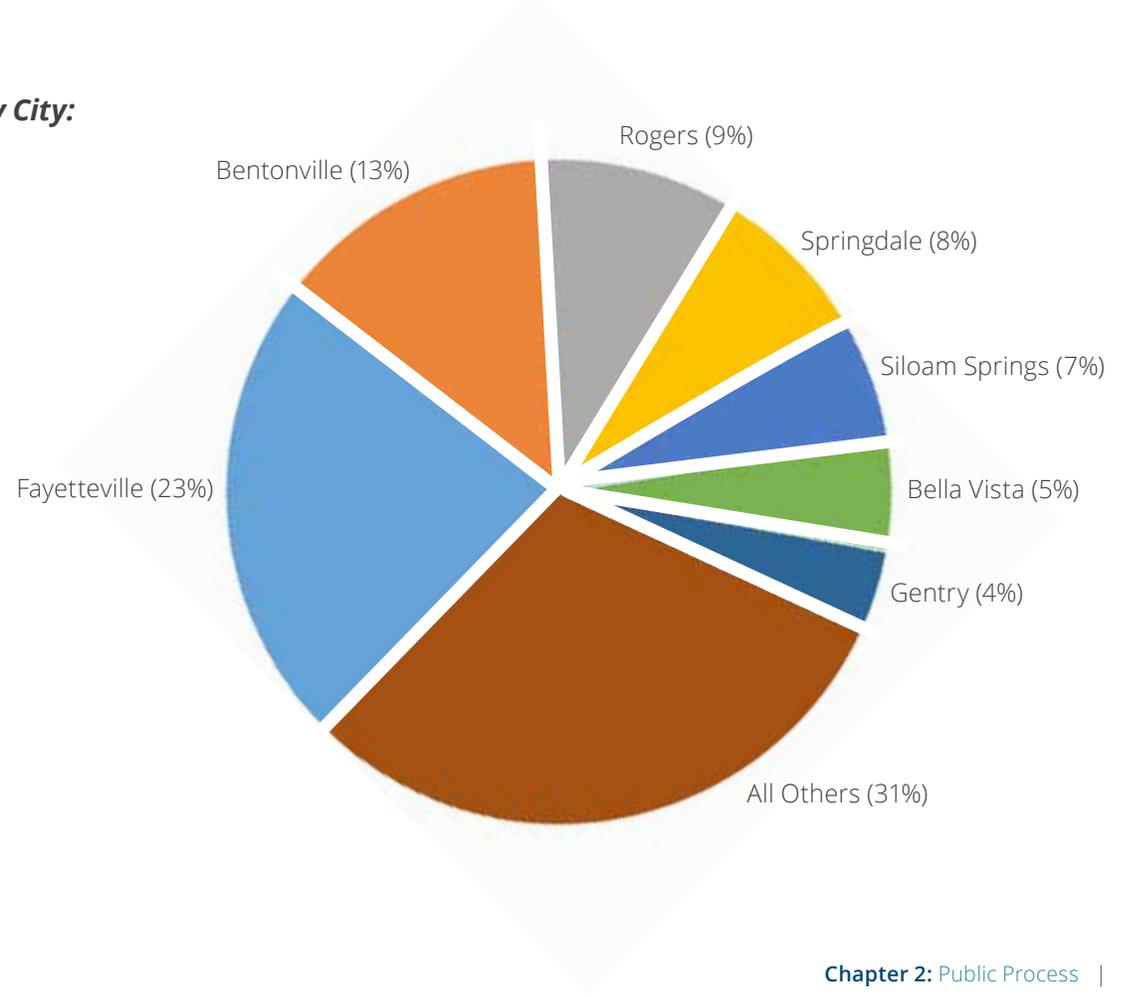
"To preserve as much of the natural beauty of NWA, I hope the planning commissions are encouraging the re-purposing of existing buildings/ building sites and incorporating natural areas into the planning of new developments."

***In what town/city/community do you live?***

***Results by County:***



***Results by City:***



## PUBLIC OPEN HOUSE WORKSHOPS & PRESENTATIONS

There were a total of seven official public open house workshops associated with this Plan. The purpose was for project planners to hear from the public about what they value most in terms of open space, and to provide information on the project purpose, goals, scope, schedule, input received to-date, and work completed to-date. Key methods of input were the public comment form and the 'Favorite Places' mapping (please refer to information about the results of this input on the previous pages). Dates, locations and total attendees for these meetings are listed below:

<i>Date</i>	<i>Location</i>	<i>Total Attendees</i>
01/20/15	Fayetteville Public Library	81
01/21/15	Bentonville Public Library	76
06/08/15	Garfield Community Center	26
06/09/15	Springdale Jones Center	46
06/10/15	Prairie Grove Battlefield State Park	29
06/11/15	Gentry City Public Library	54
07/20/15	Siloam Springs Community Building	21

There were also four official public presentations of the Draft Plan & Final Plan, with a focus on the Plan's content, prioritization process, and implementation strategy.

<i>Date</i>	<i>Location</i>	<i>Total Attendees</i>
09/23/15	Rogers Public Library (Draft Plan)	29
09/24/15	Fayetteville Public Library (Draft Plan)	41
10/13/15	Siloam Springs	17
12/01/15	Fayetteville Town Center (Final Plan)	40
12/02/15	Bentonville Public Library (Final Plan)	38
12/03/15	Siloam Springs (Final Plan)	13



Above: Images from public workshops throughout 2015.

**SUPPORT FOR OPEN SPACE IN EXISTING PLANS**

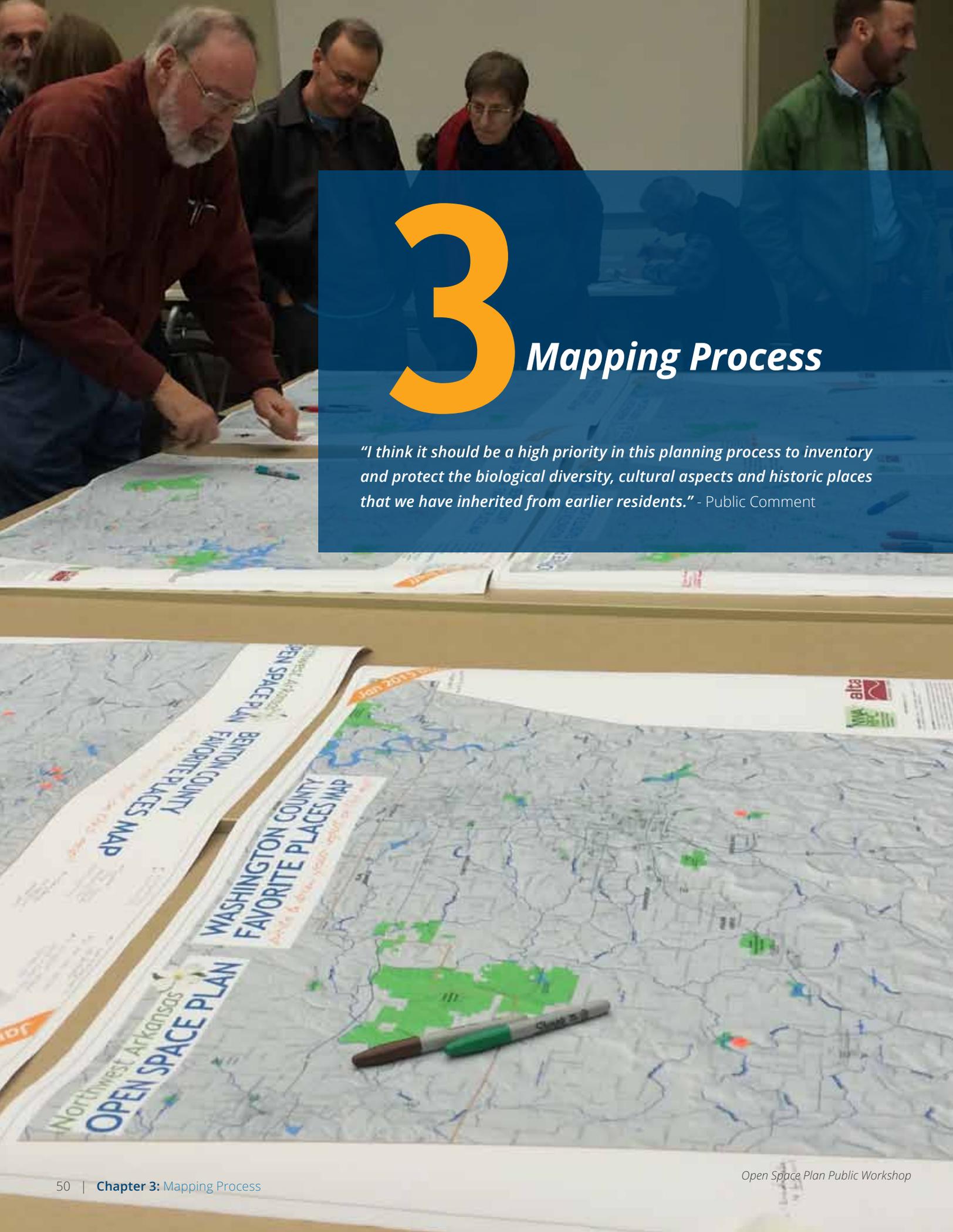
Listed below are some of the state, regional, and local plans and studies that support one or more goals of the Open Space Plan. See Appendix B for plan descriptions and summaries:

**State and Regional Plans:**

- 2035 Northwest Arkansas Regional Transportation Plan (2011)
- Arkansas Natural Area Plan (1974)
- Arkansas Watershed Planning Guide (2006)
- Beaver Lake Shoreline Management Plan (2008)
- Beaver Lake Watershed Protection Strategy (2009, Updated 2012)
- Beaver Water District Source Water Protection Plan (2012)
- Greater Northwest Arkansas Development Strategy: Building on Success: The 2015-2017 Blueprint (2015)
- Green Infrastructure Planning - Linking Arkansas Communities (2010)
- Illinois River Watershed Partnership Annual Report (2013)
- Low Impact Development: A Design Manual for Urban Areas (2010)
- Mt Kessler Reserve Plan (2013)
- Northwest Arkansas Regional Food Assessment (2014)
- NWA Heritage Trail Plan (2006, Updated 2013)
- NWA Regional Bicycle & Pedestrian Master Plan (2015)
- NWA Transportation Improvement Program (TIP) (2012)
- Ozarks Ecoregional Conservation Assessment (2003)
- Urban Ecosystem Analysis Benton and Washington Counties, Arkansas (2002)
- Urban Forest Conservation Assessment for Fayetteville (2006)
- Urban Forest Conservation Assessment for the Beaver Reservoir & the Upper White River Basin, AR (2007)
- Watershed Opportunity Assessment for the Lower White/West Fork-Beaver Lake Subwatershed (2015)

**Local Plans:**

- Active Transportation Plan (2015)
- Bella Vista Village Amenities Needs Assessment & Action Plan (2013)
- Bentonville Downtown Master Plan (2004)
- Bentonville Downtown Master Plan Implementation Report (2013)
- Bentonville Future Land Use Map (2014)
- Bentonville General Plan (2007)
- Bentonville SE Downtown Area Plan (2014)
- Bentonville Street Tree Corridor Plan (2013)
- Bentonville Tree Canopy Assessment (2014)
- Centerton Land Use Plan (2009)
- Connect Greenland Trails Projects (2015)
- Elkins Land Use Code (2001)
- Elm Springs Future Land Use Plan (2014)
- Farmington Zoning Map (2013)
- Fayette Junction Master Plan (2009)
- Fayetteville City Plan 2030 (2010)
- Fayetteville Downtown Master Plan (2004)
- Fayetteville Parks 10 Year Master Plan (2002)
- Forward Siloam Springs 2030 Comprehensive Plan (2008)
- Gentry Flint Creek Nature Area Concept Plan (2011)
- Gentry City Park Plan (2014)
- Goshen Comprehensive Plan (2003)
- Gravette Zoning Map (2015)
- Highfill Zoning Code (2006)
- Hwy 71 East Square Redevelopment District No. 1 Project Plan (2005)
- Johnson Schematic Master Plan (2015)
- Lincoln Zoning Map (2011)
- Lincoln Lake Trail Map (2015)
- Lowell Future Land Use Plan (2008)
- North Walton Boulevard Enhancement Plan (2013)
- Pea Ridge Street Map (2014)
- Prairie Grove Zoning Map (2009)
- Rogers Downtown Dashboard (2014)
- Rogers: The Lake Atalanta Plan (2014)
- Rogers Trail Map (2014)
- Siloam Springs Comprehensive Plan (2009)
- Siloam Springs' Downtown and Connectivity Master Plan (2014)
- Springdale Comprehensive Land Use Plan (2010)
- Springdale Downtown Master Plan (2013)
- Tontitown Recharge Area (2007)
- Urban Tree Canopy Assessment Project (2012)
- Walker Park Neighborhood Master Plan (2008)
- Wedington Corridor Plan (2013)
- West Fork Zoning Map (2014)



# 3

## Mapping Process

*"I think it should be a high priority in this planning process to inventory and protect the biological diversity, cultural aspects and historic places that we have inherited from earlier residents."* - Public Comment

## OVERVIEW

This chapter summarizes the mapping process for the Northwest Arkansas Open Space Plan, focusing on the initial mapping inventory, the methodology used for prioritization, and the prioritization results.

### INVENTORY AND ASSESSMENT MAPPING

The pages that follow display the results of the mapping inventory that was conducted during the first half of the planning process. **The inventory mapping evolved out of input received during the public process, and it forms the basis for the prioritization process.** The key inventory maps include:

- Built Environment
- Protected & Publicly Owned Open Space
- Natural Resource Inventory
- Outdoor Recreation Resources
- Heritage and Cultural Resources
- Working Lands

The 'snapshot' at right shows the number of key elements and outcomes of the mapping process overall.

#### MAPPING PROCESS SNAPSHOT

6 INVENTORY MAPS

13 KEY DATA SOURCES

36 KEY DATA LAYERS

5 MAPS PRIORITIZED BY SUBJECT AREA

1 OVERALL PRIORITY OPEN SPACE MAP

3 IMPLEMENTATION ANALYSIS MAPS

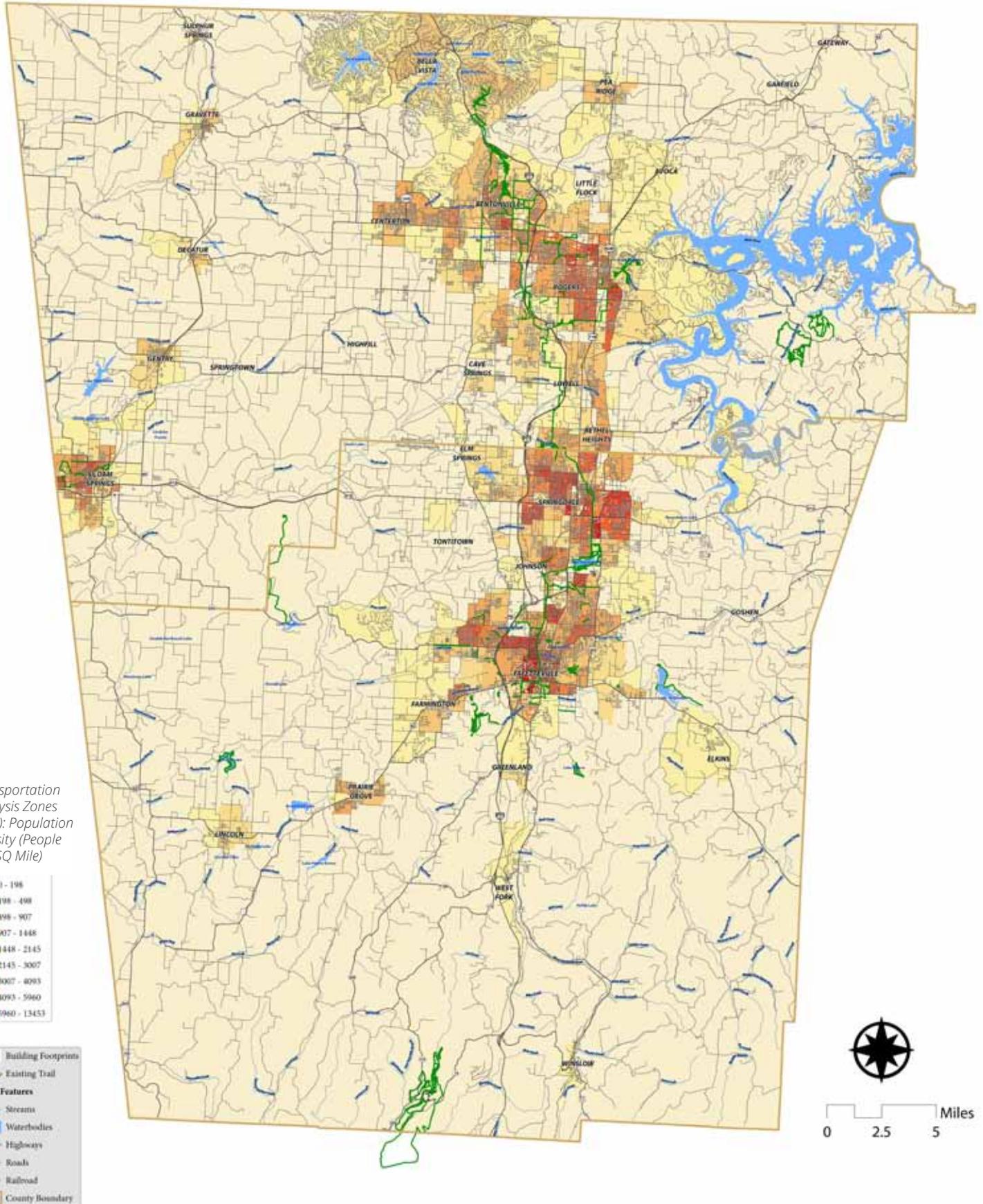
32 LOCAL COMMUNITY OPEN SPACE MAPS



**MAP 3.1**

**BUILT ENVIRONMENT**

This map shows population density, with higher-density areas in red, and medium to lower density areas from orange to yellow. See further map and data descriptions on the following page. To view this map in more detail, please visit: [www.nwaopenspace.com/resources](http://www.nwaopenspace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).



## ABOUT MAP 3.1 BUILT ENVIRONMENT

### **PURPOSE**

The purpose of this map is to show the built environment of Northwest Arkansas.

### **DATA LAYERS**

Several data layers are featured in this map:

- 1. Population Density** – Based on 2010 Transportation Analysis Zone data using natural breaks.
- 2. Building Footprints** – Benton and Washington County building footprint data.
- 3. Existing Northwest Arkansas Trails** – This layer shows existing shared use paved trails and natural surface trails.

**4. Highways, roads and railroads** – These elements of Northwest Arkansas transportation infrastructure occupy a significant amount of formerly open space in the region.

### **BACKGROUND LAYERS**

For context, the following background layers were included:

- Streams
- Waterbodies
- County Boundary

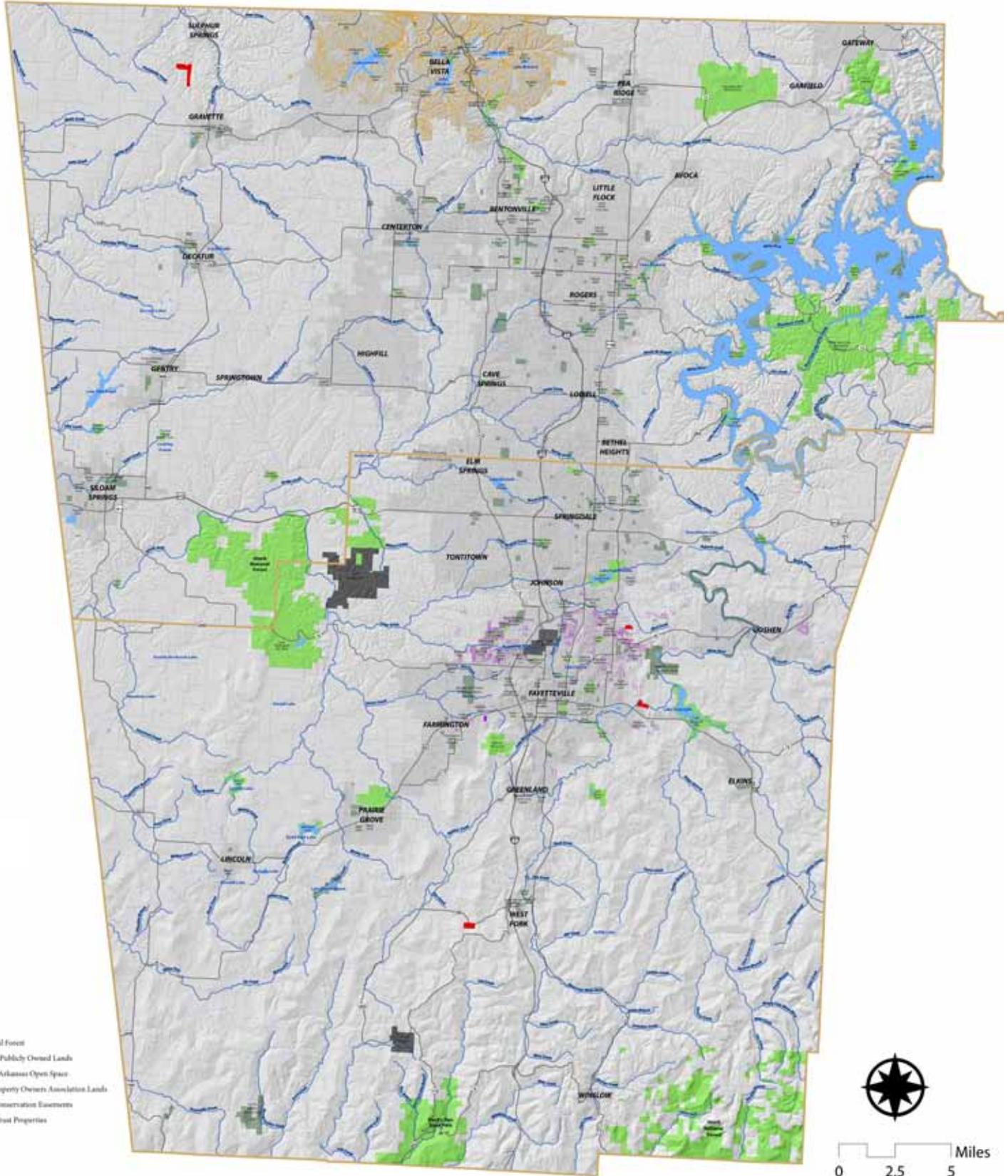
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**MAP 3.2**

**PROTECTED & PUBLICLY OWNED OPEN SPACE**

This map shows existing open spaces in the region. Some key features include Pea Ridge National Military Park and Devil's Eyebrow (top-right), Hobbs State Park (just below Beaver Lake), Ozark National Forest (middle-left and bottom-right), and Devil's Den State Park (bottom-middle). See further map and data descriptions on the following page. To view this map in more detail, please visit: [www.nwaopenspace.com/resources](http://www.nwaopenspace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).



## ABOUT MAP 3.2 PROTECTED & PUBLICLY OWNED OPEN SPACE

### **PURPOSE**

The purpose of this map is to show existing open space in Northwest Arkansas that is publicly owned or protected.

### **DATA LAYERS**

Five data sets of protected and publicly owned open space are displayed in this map. These layers and their components include:

- 1. Parks/National Forest** - Derived from an existing local parks layer, state parks layer, national parks layer, and national forest layer.
- 2. Undeveloped Publicly Owned Lands**  
Derived from local, state, and federal government land (land owned by the Illinois River Watershed Partnership and Nature Conservancy are also included). Remote analysis was used to select lands in this category that lack building structures and are undeveloped open space. This data includes land owned by municipalities, local school districts, Arkansas Game & Fish Commission, Arkansas Department of Parks & Tourism, Arkansas Natural Heritage Commission, Arkansas Soil & Water Conservation Commission, and the US Army Corps of Engineers.
- 3. University of Arkansas Open Space** - Property owned by the University of Arkansas that is undeveloped open space. This includes three larger tracts – the Savoy Experimental Watershed near Lake Wedington, the Arkansas Agricultural Research & Extension Center lands northwest of downtown, and a large tract of university owned land near Devil's Den State Park.
- 4. Property Owners Association (POA) Lands**  
Owned by POA members in Bella Vista, Lost Bridge Village and other POAs, This land is largely open space comprised of wooded creeks and valleys within and adjacent to certain residential areas that have POA lands.
- 5. Conservation Easements** - Conservation easements held by the City of Fayetteville and land trusts, such as the Northwest Arkansas Land Trust and the Ozark Regional Land Trust.

### **BACKGROUND LAYERS**

For context, the following background layers were included:

- Streams
- Waterbodies
- Highways
- Cities
- County Boundary
- Hillshade to show topographical relief

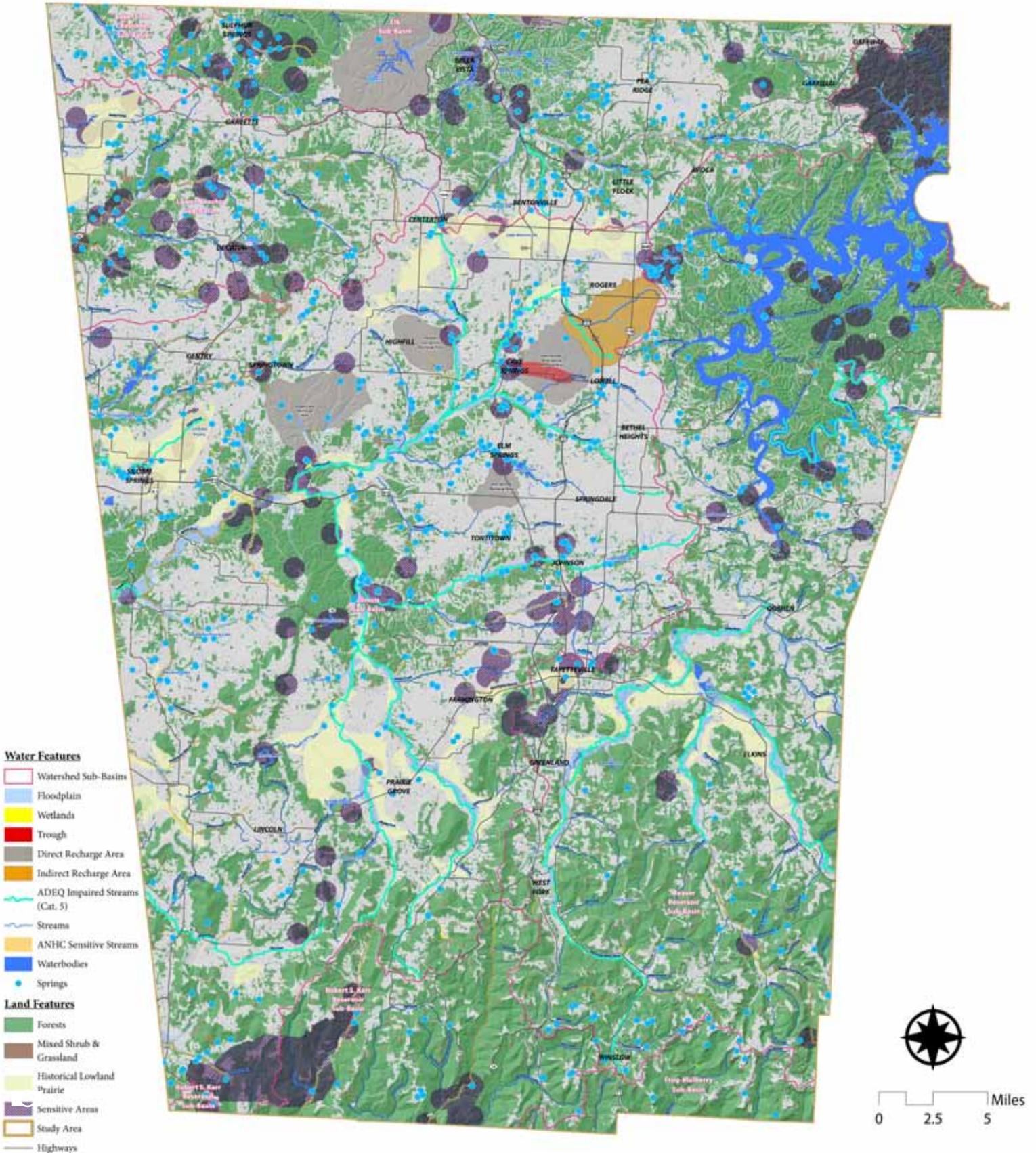
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MAP 3.3

NATURAL RESOURCE INVENTORY

This map shows the locations of various types of environmental features, including forested areas (green), areas of high biodiversity (dark circles and dark hash-marked areas), water recharge areas (shaded in grey and orange), historic prairies (shaded in light yellow), springs (small light blue dots), and watershed sub-basins (delineated by pink lines). See further map and data descriptions on the following pages. To view this map in more detail, please visit: [www.nwaopenspace.com/resources](http://www.nwaopenspace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).



## ABOUT MAP 3.3 NATURAL RESOURCE INVENTORY

### PURPOSE

The purpose of this map is to show existing natural resources across Northwest Arkansas.

### DATA LAYERS

#### Water Features:

1. **Sub-Basin** - Hydrologic Unit Code (HUC) 8
2. **Floodplain** - 100-year floodplain
3. **Wetlands** - 2014 United States Fish & Wildlife Service (USFWS) data.
4. **Cave Springs Groundwater Trough** – The trough extends east from Cave Springs and is an area of rapid groundwater recharge and generally poor to fair soil treatment capability. The trough encompasses an area of approximately 1.8 square miles and is an area of heightened vulnerability for the karst system.
5. **Recharge Areas** - Recharge is the addition of water to an aquifer. It typically occurs through infiltration of rainwater or snowmelt through the surface soil, followed by downward percolation through the unsaturated zone. The portion of infiltrating water that percolates to the water table is termed recharge. Direct recharge is through vertical percolation to the water table, whereas indirect recharge is percolation to the water table through the beds of surface water courses. Research in the last two decades has delineated one indirect recharge area in Northwest Arkansas (Cave Springs/Reed Spring Recharge Area - NWARPC 2015), and six direct recharge areas:
  - Hewlitts Spring Hole – Aley (1992)
  - Logan Cave – Aley & Aley (1997)
  - Bear Hollow Cave – Aley & Aley (1998)
  - Cave Springs Cave – Aley & Moss (2001)

- Elm Springs – Aley & Slay (2006)
- Old Pendergrass Cave – Aley & Slay (2007)

6. **Streams** - Stream data from the Arkansas Department of Environmental Quality (ADEQ).
7. **ANHC Sensitive Streams** - Arkansas Natural Heritage Commission (ANHC) works to conserve the Arkansas biodiversity by identifying ecologically important areas and setting priorities for their protection and the species that inhabit them. To that end, ANHC's Arkansas Heritage Program maintains a dynamic biodiversity database that tracks the location and status of rare species of animals and plants as well as natural communities in Arkansas, parts of which are captured in this data set.
8. **Waterbodies** - Waterbody data from the US Geological Survey (USGS).
9. **Springs** - Spring data from the United States Geologic Survey (USGS), Fayetteville Natural Heritage Association (FNHA) and locally observed locations.

#### Land Features:

The forests and mixed shrub/grassland cover data is from the 2011 National Land Cover Database (NLCD), including:

1. **Forests** – Areas dominated by trees generally greater than 5 meters tall, including deciduous forest (tree species that shed foliage in response to seasonal change), evergreen forest (tree species that maintain their leaves all year), and mixed forest (deciduous and evergreen species).
2. **Mixed Shrubs & Grasslands** - Areas including:
  - *Grassland/Herbaceous* – Non-woody grassland areas that are not subject to

*[continued on following page]*



*[continued from previous page]*

intensive management such as tilling, but can be utilized for grazing.

- *Shrub/Scrub* – This class includes true shrubs (young trees in an early successional stage) or trees stunted from environmental conditions.
- *Woody Wetlands* – Forest or shrubland where the soil or substrate is periodically saturated with or covered with water.
- *Emergent Herbaceous Wetlands* – Areas with herbaceous (non-woody) vegetation, where the soil or substrate is periodically saturated with or covered with water.

**3. Historic Lowland Prairies** - Digitized from historical resources delineating prairies (and other types of vegetation) from the 19th century:

- Benton County historical prairies are identified in a copy of the Annual Report of the Geological Survey of Arkansas from 1891, produced by John C. Branner, a geologist.
- Maps interpreted from 1831 land surveyor notes delineating vegetation zones in NWA. Copies are found in the Special Collections at Mullins Library of the University of Arkansas, Fayetteville. Reference: Miller, Henry M. (*A vegetal reconstruction of early historic northwest Arkansas*) Department of Anthropology, U of A-Fayetteville.

**4. Sensitive Areas** - Similar to the sensitive streams layer, this data from the Arkansas Natural Heritage Commission (ANHC) identifies ecologically important areas for biodiversity. The layer also includes relevant data from the Watershed Conservation Resource Center.

**5. Champion Trees** - Tree data from the Arkansas Forestry Commission’s Champion Tree Program. The program recognizes the largest trees of each tree species throughout the state, several of which are in Northwest Arkansas.

**BACKGROUND LAYERS**

For context, the following background layers are included:

- Study Area
- Highways
- Hillshade to show topographical relief

**DATA CONSIDERATIONS**

- *Recharge Areas Data* – Research is ongoing to further define recharge areas in Northwest Arkansas.
- *Historical Prairies and Other Data Derivation Possibilities* – Historical resources from the 19th century were referenced in creating a digital layer of historical prairies. This type of documentation is an example of the possibilities to create relevant data from historical resources and thus providing a more complete picture of the evolution of the biological and historical nature of open space in Northwest Arkansas.

**Disclaimer:** This map was developed from the best available sources and constitutes a graphic representation of these data sources. No guarantee of accuracy is granted, nor is any responsibility for reliance thereon assumed. In no event shall the NWARPC or any other entity be liable for direct, indirect, incidental, consequential or special damages of any kind, including, but not limited to, loss of anticipated profits or benefits arising out of use of or reliance on the data. The NWARPC and/or any other entity are in no way responsible for or liable for any misrepresentation or re-use of this map. Distribution of this map is intended for information purposes only and should not be considered authoritative for engineering, legal and other site-specific uses.

### **A NOTE FROM THE BEAVER WATERSHED ALLIANCE:**

*“The Open Space Plan currently being developed by the Northwest Arkansas Regional Planning Commission in concert with local municipalities, businesses, citizens, and non-profit organizations throughout the region will provide many benefits to Northwest Arkansas should it be realized. The Mission of the Beaver Watershed Alliance is to proactively protect, enhance, and sustain the water quality of Beaver Lake and the integrity of its watershed in a voluntary fashion. One major water quality best management practice to protect our water supply is conservation of land. Whether it is a working forest or pasture, a cultural site, or recreational site that is kept as open space, this will help protect the quality of our regional water supply by offsetting the potential for degradation of water quality as land use changes from forest and pasture to highways, subdivisions, and parking lots.*

*Forested land is the most beneficial use of land for maintaining high water quality, and it is expected that a 10% decline or about 57,000 acres of forest will take place in the next thirty years. It is also likely that pastureland will disappear at a similar rate. According to the newly updated cost estimation for watershed protection in the Beaver Lake Watershed, 100 million dollars are needed to conserve strategic forest parcels alone. While the Northwest Arkansas Open Space Plan may not be able to aid in the conservation of most of this land in the Beaver Lake Watershed or absorb most of the cost, it will surely help and is greatly needed.” - John Pennington, Beaver Watershed Alliance*



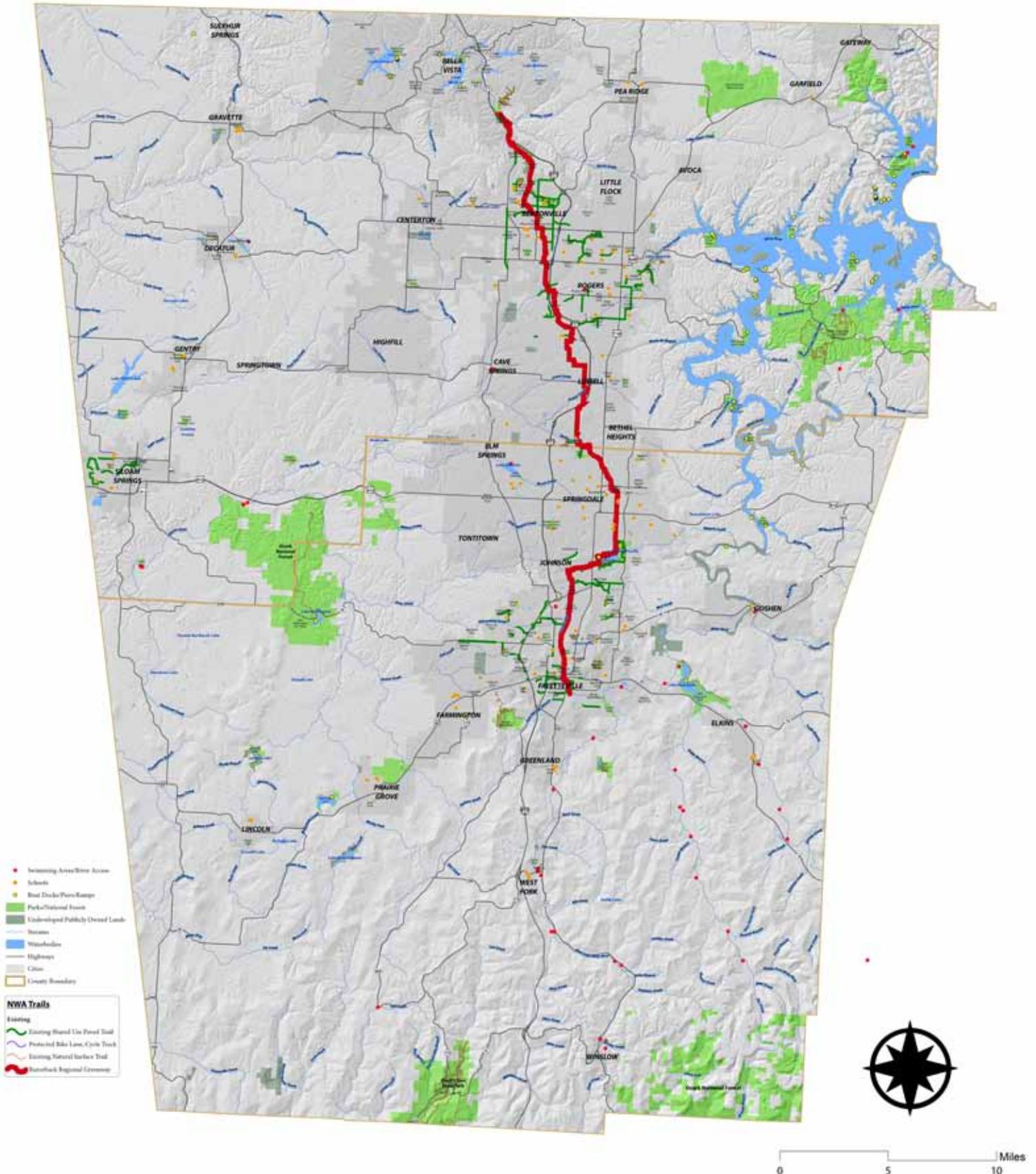
Beaver Lake.



MAP 3.4

OUTDOOR RECREATION RESOURCES

This map shows the locations of various types of recreational resources, including the Razorback Regional Greenway (red line), other shared use paved trails (green lines), parks and National Forest lands (green areas), schools (orange dots), boat docks/ramps (yellow dots), and swimming areas (red dots). See further map and data descriptions on the following page. To view this map in more detail, please visit: [www.nwaopenspace.com/resources](http://www.nwaopenspace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).



## ABOUT MAP 3.4 OUTDOOR RECREATION RESOURCES

### **PURPOSE**

The purpose of this map is to show existing outdoor recreation resources across Northwest Arkansas.

### **DATA LAYERS**

Five data layers are featured in this map:

- 1. Swimming Areas/River Access** – These areas were identified during public input of this planning process.
- 2. Schools** – Schools generally have open space areas dedicated to athletics for a variety of sports including (but not limited to) baseball, football, and soccer. This layer provides point data for schools across Northwest Arkansas.
- 3. Boat Docks/Piers/Ramps** – Developed by AHTD, this layer shows existing boat docks, piers, and boat ramps.
- 4. Parks/National Forest** – This layer shows local, county, state, and national parks in Northwest Arkansas. National forest land is also featured. Parks and national forests feature a variety of outdoor recreation opportunities and are important features of the outdoor recreation landscape in Northwest Arkansas.

- 5. Northwest Arkansas Trails** – This layer shows shared use paved trails, natural surface trails, protected bike lanes, and the Razorback Regional Greenway.

### **BACKGROUND LAYERS**

For context, the following background layers were included:

- Undeveloped Publicly Owned Lands – These are areas that could fulfill opportunities for outdoor recreation depending on future land use decisions.
- Streams
- Waterbodies
- Highways
- Cities
- County Boundary
- Hillshade to show topographical relief

### **DATA CONSIDERATIONS**

Additional layers to be collected could include locations for activities such as (but not limited to) rock climbing, hunting, bird watching, fishing, and agritourism.

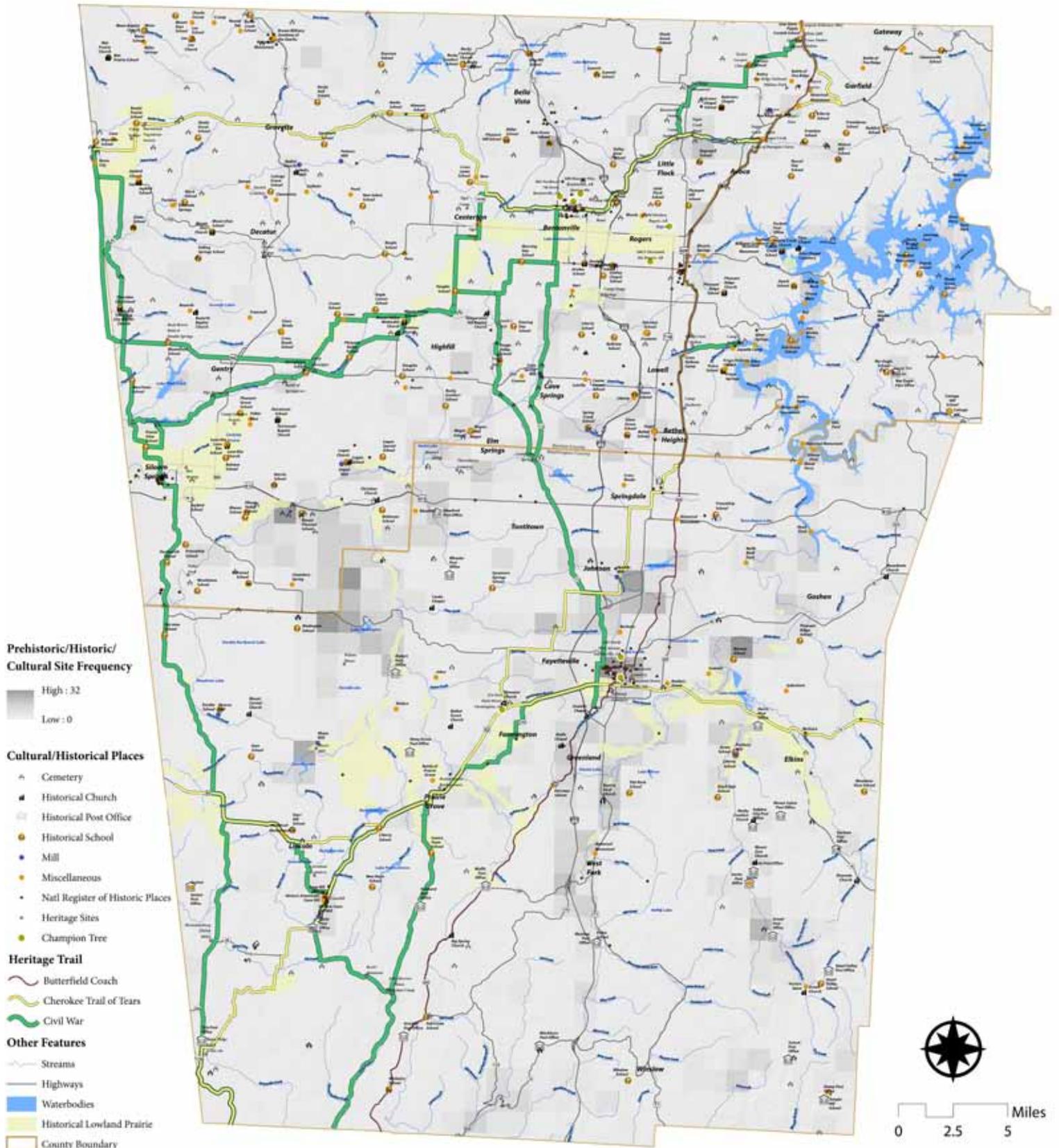
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### MAP 3.5

## HERITAGE AND CULTURAL RESOURCES

This map shows the locations of various types of historic and cultural resources, such as cemeteries, historic churches, historic post offices, historic schools, and historic mills. Other miscellaneous sites include historic river crossings, monuments, populated places, camps, and stores. Heritage trail corridors are shown in green, yellow, and brown lines. Another key feature of this map is the Prehistoric/Historic/Cultural Site Frequency data; this shows areas identified by the Arkansas Archeological Survey as having higher numbers of such sites, and is purposefully shown in a lower-level of detail in order to protect those sites. See further map and data descriptions on the following page. To view this map in more detail, please visit: [www.nwaopenspace.com/resources](http://www.nwaopenspace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).



## ABOUT MAP 3.5 HERITAGE AND CULTURAL RESOURCES

### PURPOSE

The purpose of this map is to show heritage and cultural resources across Northwest Arkansas, including historic trails.

### DATA LAYERS

Five data sets are displayed in this map:

#### 1. Prehistoric/Historic/Cultural Site Frequency

- Site Information from the Automated Management of Archeological Site Data in Arkansas (AMASDA) database – Arkansas Archeological Survey.

**2. Cultural/Historical Places** – This data layer is a collection of cultural/historical locations across Northwest Arkansas compiled by the Arkansas State Highway and Transportation Department. The following location types are featured: cemeteries, historic churches, historic post offices, historic schools, and historic mills. Other miscellaneous sites include historic river crossings, monuments, populated places, camps, and stores.

**3. National Register of Historic Places** – The National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.

**4. Heritage Sites** – Historically significant locations identified by Heritage Trail Partners.

**5. Champion Trees**– Tree data from the Arkansas Forestry Commission's Champion Tree Program. The program recognizes the largest trees of each tree species throughout the state, several of which are in Northwest Arkansas.

**6. Heritage Trails** –These include the following:

- Butterfield Stage Coach Route - John Butterfield began operating the longest stagecoach run

in the history of the world in 1858. The mail coaches ran through Northwest Arkansas from Tipton, Missouri to San Francisco, CA on a regular schedule until 1861. Coaches visited each stop along the route twice weekly each way. This route generally ran along the ridgeline between sub-basins through Northwest Arkansas.

- Cherokee Trail of Tears - This route follows the forced removal route of five civilized Native American Indian tribes from their homeland in the east, to the Indian Territory, today's eastern Oklahoma. The removal took place from 1837 to 1839, utilizing several different routes through Northwest Arkansas.
- Civil War Routes/Historic Roadways - These troop movement routes played an essential role leading up to and in the aftermath of two major Civil War battles in Northwest Arkansas: The Battle of Pea Ridge and The Battle of Prairie Grove. These routes also had massive regional significance before the Civil War era, as routes used during both the Indian Removal Act and the Mexican-American War.

**7. Historical Lowland Prairie** – See description from the Natural Resources Map.

### BACKGROUND LAYERS

For context, the following background layers were included:

- Streams
- Highways
- Waterbodies
- Historical Lowland Prairies
- County Boundary
- Hillshade to show topographical relief

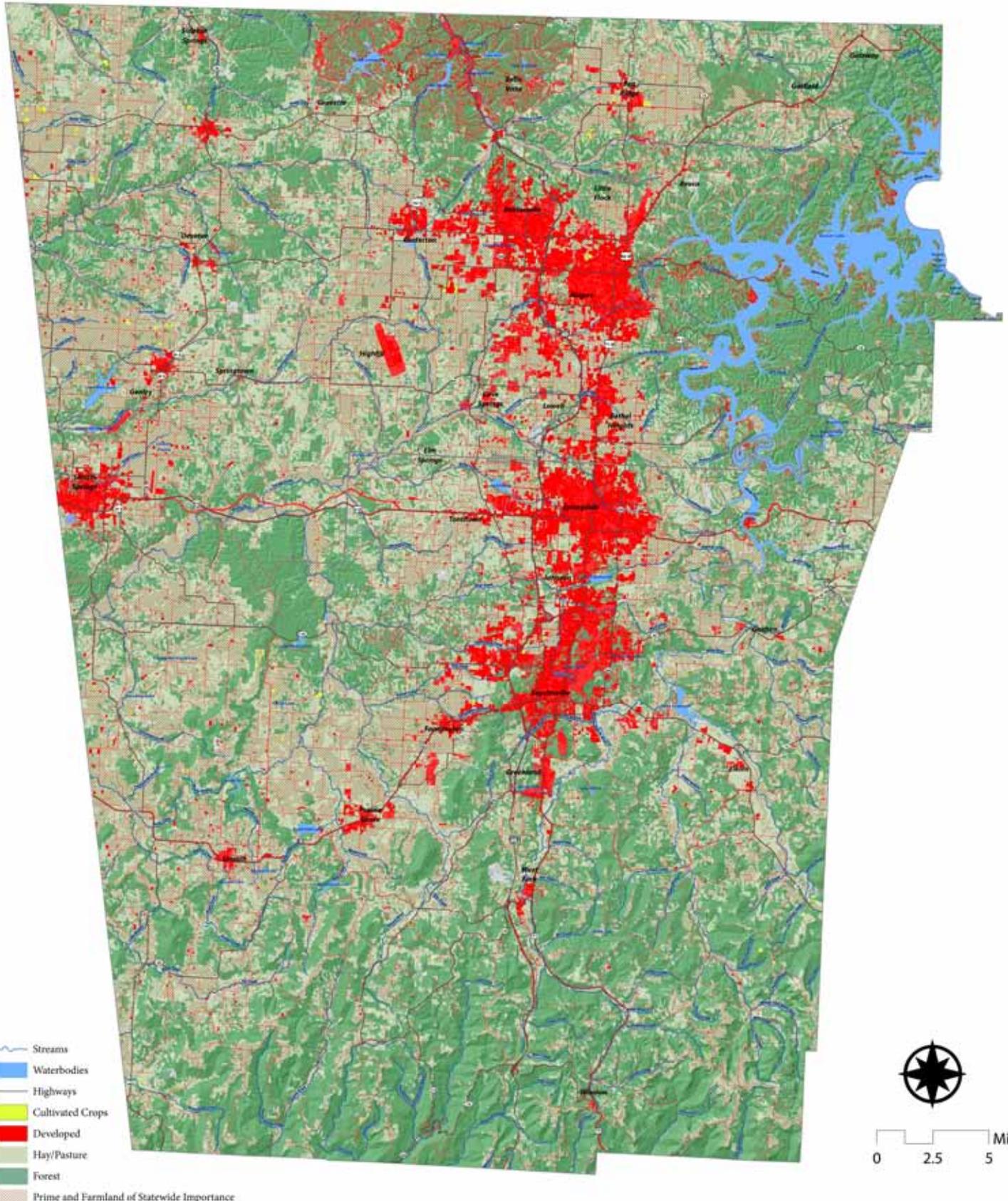
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MAP 3.6

WORKING LANDS

This map shows agricultural resources in relation to developed areas (red) and forested areas (green). There is no data for the actual locations of all farms in the region, so the agricultural resources shown rely on land cover and soil data. This includes hay/pasture (light green areas, or essentially areas that are not forested or developed), prime farmland and farmland of statewide importance (hash-marked areas), and cultivated crops (small yellow areas). See further map and data descriptions on the following page. To view this map in more detail, please visit: [www.nwaopenspace.com/resources](http://www.nwaopenspace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).



## ABOUT MAP 3.6 WORKING LANDS

### PURPOSE

The purpose of this map is to show Northwest Arkansas' agricultural resources in relation to existing development.

### DATA LAYERS

There is no comprehensive data set currently available that delineates the actual locations of all of Northwest Arkansas' farms. Several other data sets are used in lieu of that data:

1. **Cultivated Crops** (from the 2011 National Land Cover Database (NLCD)) – Areas used for the production of annual crops, such as corn, soybeans, vegetables, tobacco, and cotton, and also perennial woody crops such as orchards and vineyards. Crop vegetation accounts for greater than 20% of total vegetation. This class also includes all land being actively tilled.
2. **Developed Areas** (from the 2011 NLCD) - This layer shows various levels of developed land, ranging from highly developed areas to low-intensity development.
3. **Hay/Pasture** (from the 2011 NLCD) – Areas of grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle. Pasture/hay vegetation accounts for greater than 20% of total vegetation.
4. **Forests** – See description from the Natural Resources Map.
5. **Prime Farmland** – Farmland that is of major importance in meeting the Nation's short- and long-term needs for food and fiber. It is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops (based on a national database of soil types) (USDA/SSURGO Database).
6. **Farmland of Statewide Importance** - Generally, these are nearly prime farmland areas that economically produce high yields of crops when treated and managed according to acceptable farming methods (based on a national database of soil types) (USDA/SSURGO Database).

### BACKGROUND LAYERS

For context, the following background layers were included:

- Streams
- Waterbodies
- Highways
- Hillshade to show topographical relief

**Disclaimer:** *This map was developed from the best available sources and constitutes a graphic representation of these data sources. No guarantee of accuracy is granted, nor is any responsibility for reliance thereon assumed. In no event shall the NWARPC or any other entity be liable for direct, indirect, incidental, consequential or special damages of any kind, including, but not limited to, loss of anticipated profits or benefits arising out of use of or reliance on the data. The NWARPC and/or any other entity are in no way responsible for or liable for any misrepresentation or re-use of this map. Distribution of this map is intended for information purposes only and should not be considered authoritative for engineering, legal and other site-specific uses.*



### KEY CONCEPTS FOR OPEN SPACE

In addition to the many mapping inputs noted on the previous pages, this Plan also examines Northwest Arkansas' open space 'cores and corridors' and their potential to support biodiversity. A basic overview of these key concepts is provided below. The descriptions draw from a technical resource on this subject: *Evaluating and Conserving Green Infrastructure Across the Landscape: A Practitioners' Guide; Arkansas Edition* (Firehock).

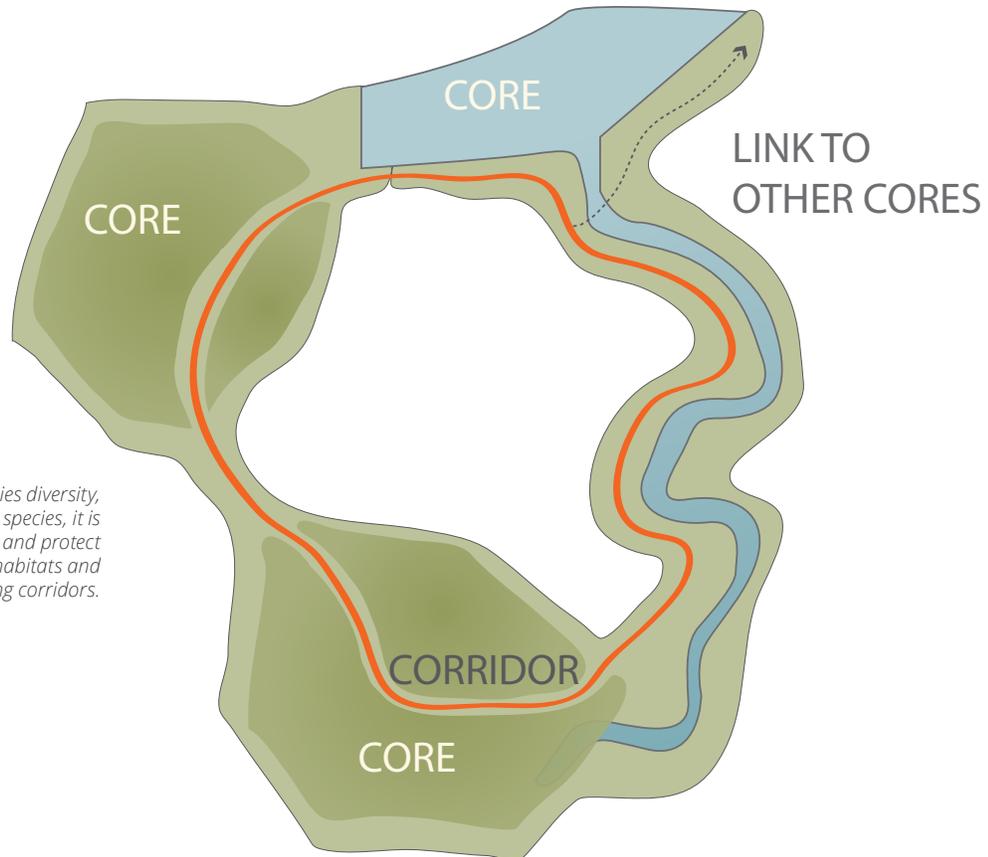
#### BIODIVERSITY

Biodiversity is simply **the diversity among and within plant and animal species in an environment**. Biodiverse systems provide a wide range of ecosystem services, and have a greater ability to withstand natural and/or human caused disturbance (resiliency).

Many of the benefits of open space (see Chapter 1) depend upon biodiverse systems and the resulting ecosystem services they provide, such as:

- Soil formation and protection
- Pollution breakdown and absorption
- Water resource protection
- Erosion and flood control
- Nutrient storage and recycling
- Climate stability
- Ecosystem resilience from unpredictable events/disturbances
- Breeding stocks, population reservoirs
- Food production
- Medicinal resource production – pharmaceutical drugs
- Wood production
- Genetic diversity

*To ensure species diversity, particularly for native species, it is critical to identify, map, and protect a series of intact core habitats and their connecting corridors.*



**CORE**

A core is an area of relatively intact habitat that is sufficiently large to support more than one individual of a species (Firehock, 2013). Generally speaking, **the larger the core, the higher the biodiversity.**

**CORRIDOR**

A corridor is a linear arrangement of habitat types or natural cover that provides a connection between cores. Important features include:

- Wildlife movement – **Corridors are used by species to move between cores**, so they must be wide enough to allow wildlife to progress across the landscape within

conditions similar to their interior habitat. For this reason, it is recommended that these connections be at least 300 meters wide: a central 100-meter edge on either side to protect safe passage and buffer against human intrusion and invasive species.

- **Corridors allow populations of plants and animals to respond to changes in land cover**, surrounding land use, and microclimate changes over the long term.

Generally speaking, **the better the connectivity across cores provided by corridors, the greater the possibilities for higher biodiversity.**



*Northwest Arkansas’ large protected open spaces, such as Hobbs State Park and Beaver Lake (top) are examples of core areas, whereas Northwest Arkansas’ many riparian areas, such as Mullin’s Creek (bottom) are examples of corridors.*



## METHODOLOGY FOR PRIORITIZATION MAPPING AND ANALYSIS

### GEOGRAPHIC INFORMATION SYSTEM (GIS) DATA COLLECTION

For data used in this planning process, three simple requirements had to be fulfilled:

1. The data must exist or be readily obtainable in the near term.
2. The data must be represented spatially.
3. The data must be consistently available over the entire two-county study area.

Once collected, the **data sets were organized into five key subject areas** (natural resources, outdoor recreation, working lands, heritage & cultural resources, and cores & corridors). The first four subject areas are introduced in Chapter 1, and the concept of ‘cores and corridors’ is introduced on the previous page. See the opposite page for a listing of each of the data sets used for the five subject areas, representing a variety of open space features.

### IDENTIFYING CORES AND CORRIDORS

The cores and corridors map uses the most recent National Land Cover Data (2011), which shows how land is covered in any given area of the region (e.g., forest areas, wetland areas, water bodies, developed areas). Using this data to identify cores and corridors involved the following key steps:

1. **Identifying and merging the forest, wetland, and aquatic areas that are whole**, and not divided by man-made features, such as roadways and developed areas.
2. **Identifying core areas of different sizes.** This Plan uses areas 20-100 acres, 100-499 acres, and >500 acres, including a 100-meter buffer from roadways and developed areas.
3. **Assigning high, medium, and low values to core shapes.** The shape of a core affects its ability to support biodiversity. Cores with

greater depth (the distance from the center to edge) are better at supporting biodiversity since the edges of cores are often disrupted by invasive species, pollution from roadways, and overexposure to sun and wind. For example, a large thin core may have high acreage, but its lack of depth prevents it from serving as quality core habitat.

4. **Identifying corridors between large core areas.** In this approach, a corridor is made up of a series of smaller core areas that align to provide the shortest distance between large cores, while at the same time crossing the fewest number of roads and developed areas.

### PRIORITIZATION BY SUBJECT AREAS

The project Steering Committee assigned weights to each type of open space and open space feature, which determined the relative importance of the 36 distinct data sets used in the mapping process (listed by group in order of relative importance on the opposite page).

The two-county region was then analyzed on a detailed level of 30m x 30m squares, with each square assigned a value according to the number of open space features it has, and the relative importance of those features according to the assigned weights. **The result is a series of open space priority maps, with higher value/higher occurrence areas shown in darker shades of green.**

### OVERALL PRIORITY OPEN SPACE MAP

**The overall map is a summation of the five subject area maps.** Similar to the step above, the Steering Committee also ranked the relative importance between the five maps, with the natural resource features being deemed about twice as important as any of the other four subject areas. This also generally **reflects public input received on the comment form, which places an emphasis on the importance of natural areas.**

# Open Space Priority Maps

Each set of open space data was organized into five main subject areas. Those data sets were then ranked by the Steering Committee according to their importance for each subject area. The data sets are listed below in order of their importance, and are shown in green on each of the five maps (see following pages for detail). Areas of land that have more of these features, and that have higher-value features, are shown in darker shades of green. Areas of land with fewer of these features, or that lack these features, are shown in lighter shades of green or grey/white.

## 1 NATURAL RESOURCES

- Forests
- Streams
- ANHC Sensitive Streams
- ANHC Sensitive Areas & Federally Protected Species
- Trough
- Wetlands
- Springs
- Recharge Areas
- Waterbodies
- Floodplains
- Indirect Recharge Areas
- Steep Slopes
- Mixed Shrub & Grassland

## 2 OUTDOOR RECREATION

- Parks/National Forest
- Existing NWA Trails
- Proposed Trails from the NWA Bike/Ped Plan
- Swimming Areas/River Access
- Schools (fields provide for recreation)
- Boat docks/piers/ramps

## 3 WORKING LANDS

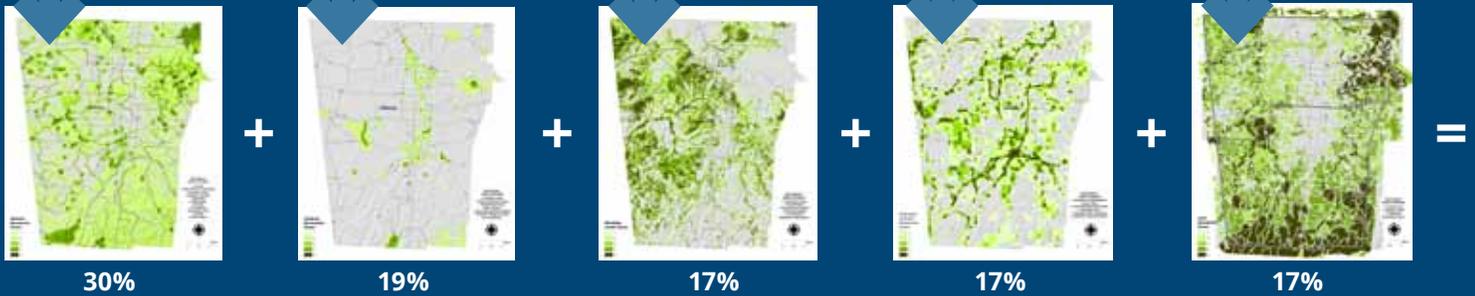
- Prime Farmland
- Cultivated Crops
- Hay/Pasture
- Farmland of Statewide Significance

## 4 HERITAGE & CULTURAL RESOURCES

- Arkansas Archeological Survey (AAS) Sites
- Heritage Sites
- Cultural/Historical Places
- Historic Lowland Prairies
- Heritage Trail Corridors

## 5 CORES & CORRIDORS

- Corridor Area
- High-Quality Core Shape
- Large Cores (>500 Acres)
- Medium Cores (100-499 Acres)
- Medium-Quality Core Shape
- Small Cores (20-100 Acres)
- Low-Quality Core Shape



## Overall Priority Open Space Map

The overall map combines the five maps above (weighted by the percentages above), with the greatest emphasis on the 'Natural Resources' features, as directed by the Steering Committee, and as supported by input from the public comment form.

For further detail on the GIS processes used in this Plan, please contact the NWARPC.



Additional Analysis

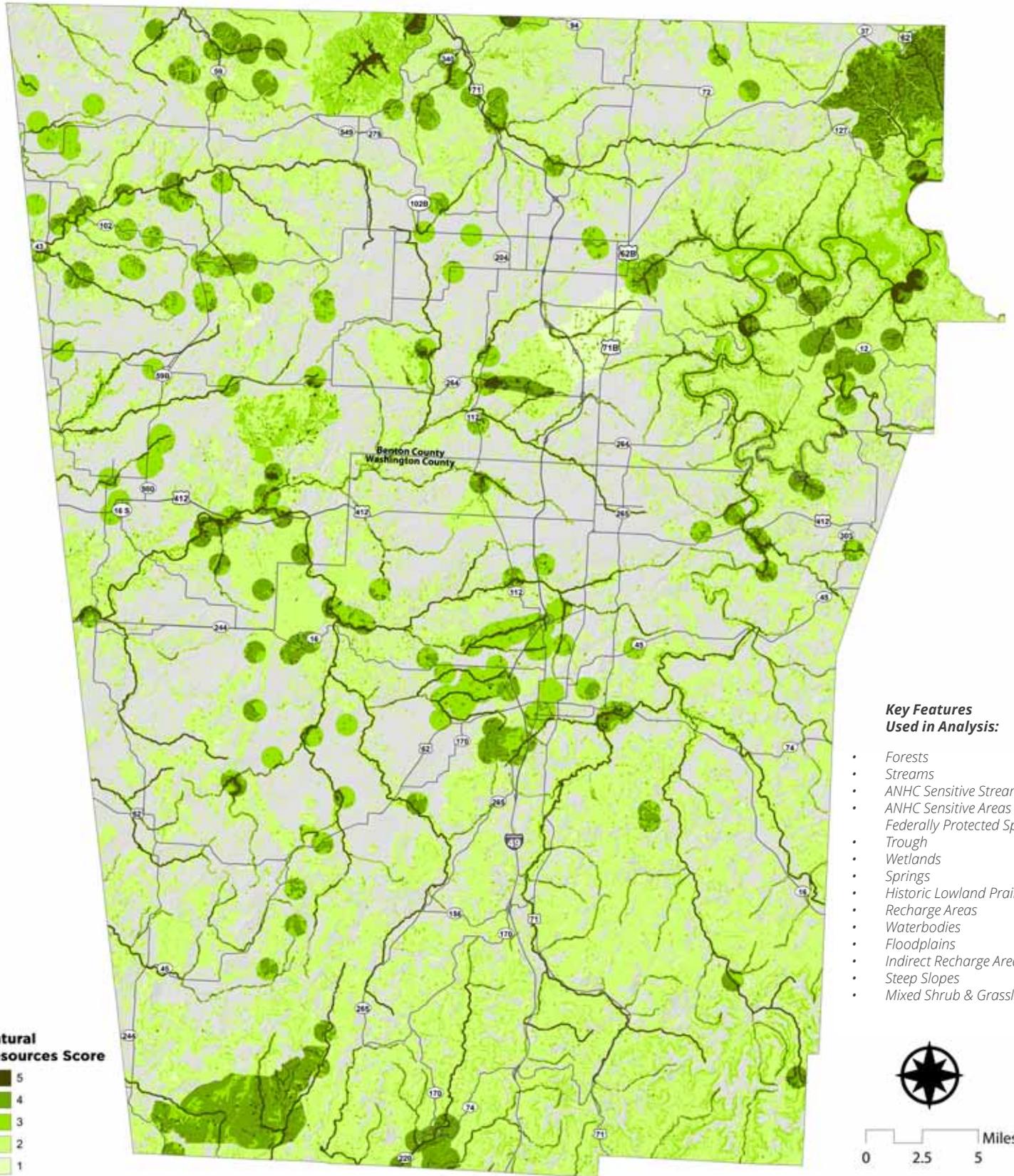
- Priority Open Space Adjacent to Already-Protected Open Space (Chapter 4)
- Priority Open Space and Development Pressure (Chapter 4)
- Priority Open Space and Public Favorite Places (Chapter 4)
- 32 Local Community Open Space Maps (Appendix A)



**MAP 3.7**

**NATURAL RESOURCES PRIORITY MAP**

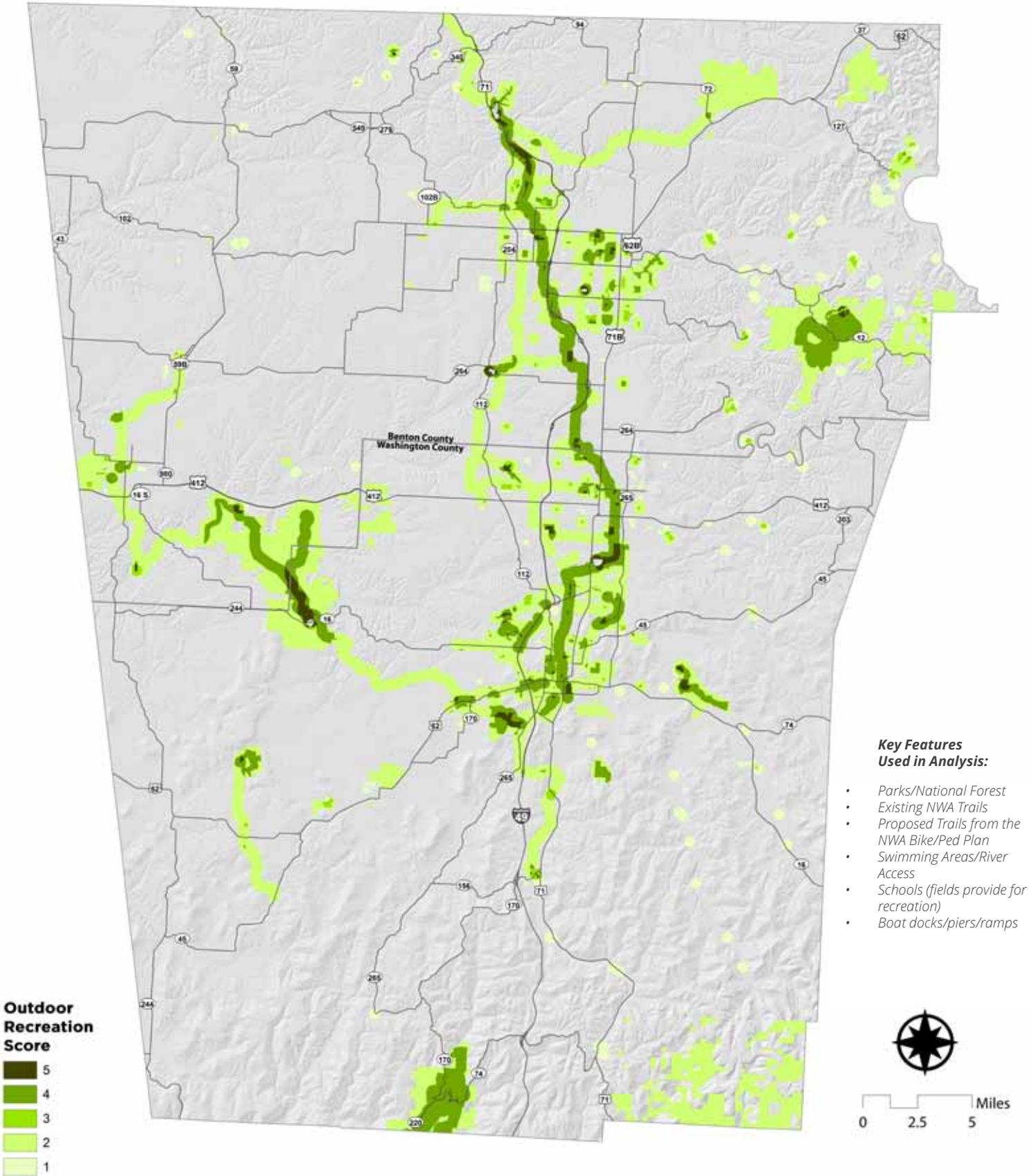
Data for the region's natural resources (listed below, right) were ranked according to their importance, and are shown in various shades of green below. Areas that have more of these features, and that have higher-value features, are shown in darker shades of green. Areas with fewer of these features, or that lack these features, are shown in lighter shades of green or grey/white. This is one of five maps used to inform the Overall Priority Map (Map 3.12). For more on this process, see pages 68-69. For more on the data used in this map, see pages 56-58. To view this map in more detail, please visit: [www.nwaopenspace.com/resources](http://www.nwaopenspace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).



**MAP 3.8**

**OUTDOOR RECREATION PRIORITY MAP**

Data for the region's recreation resources (listed on below, right) were ranked according to their importance, and are shown in various shades of green below. Areas that have more of these features, and that have higher-value features, are shown in darker shades of green. Areas with fewer of these features, or that lack these features, are shown in lighter shades of green or grey/white. This is one of five maps used to inform the Overall Priority Map (Map 3.12). For more on this process, see pages 68-69. For more on the data used in this map, see pages 60-61. To view this map in more detail, please visit: [www.nwoopensepace.com/resources](http://www.nwoopensepace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).

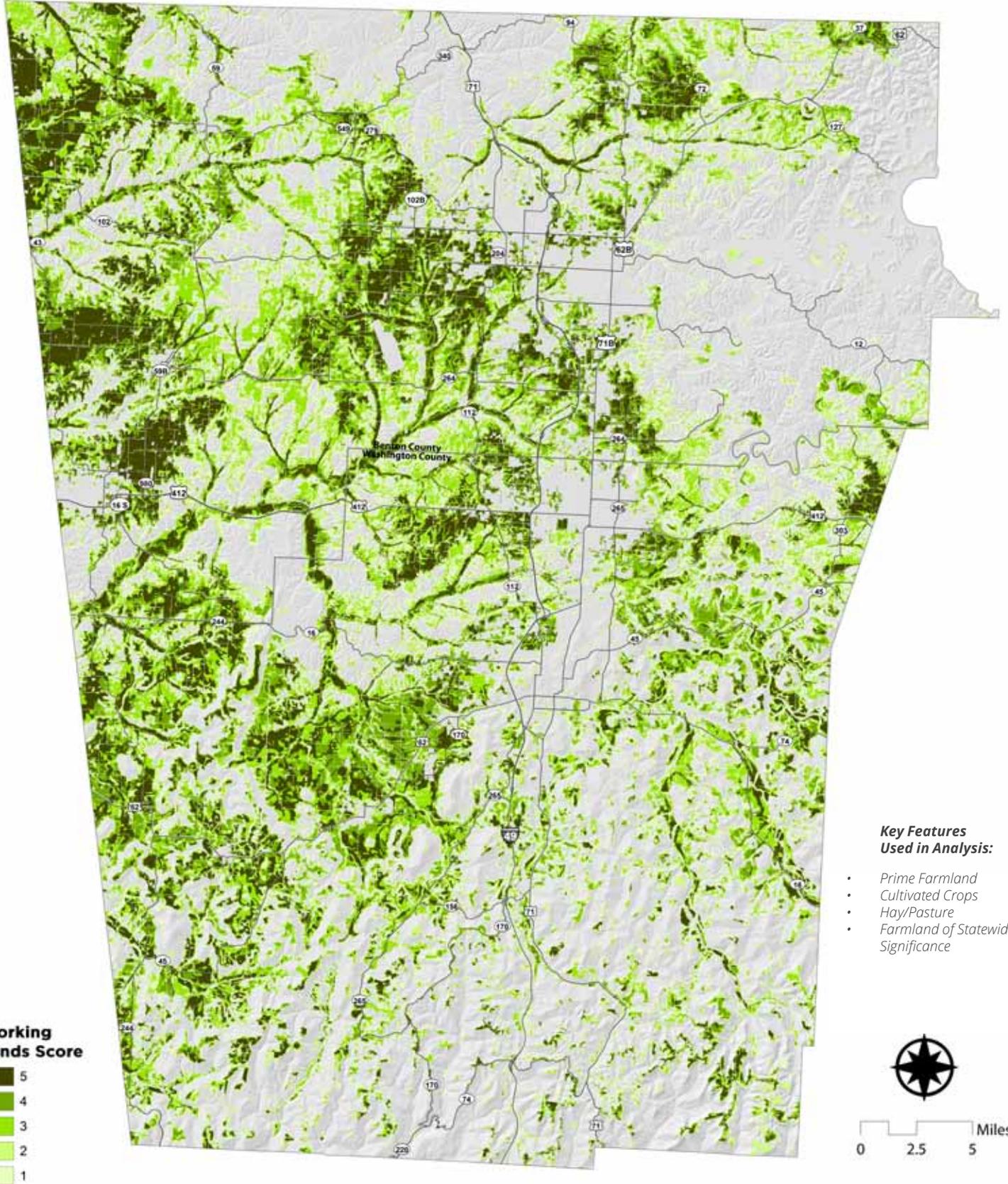




**MAP 3.9**

**WORKING LANDS PRIORITY MAP**

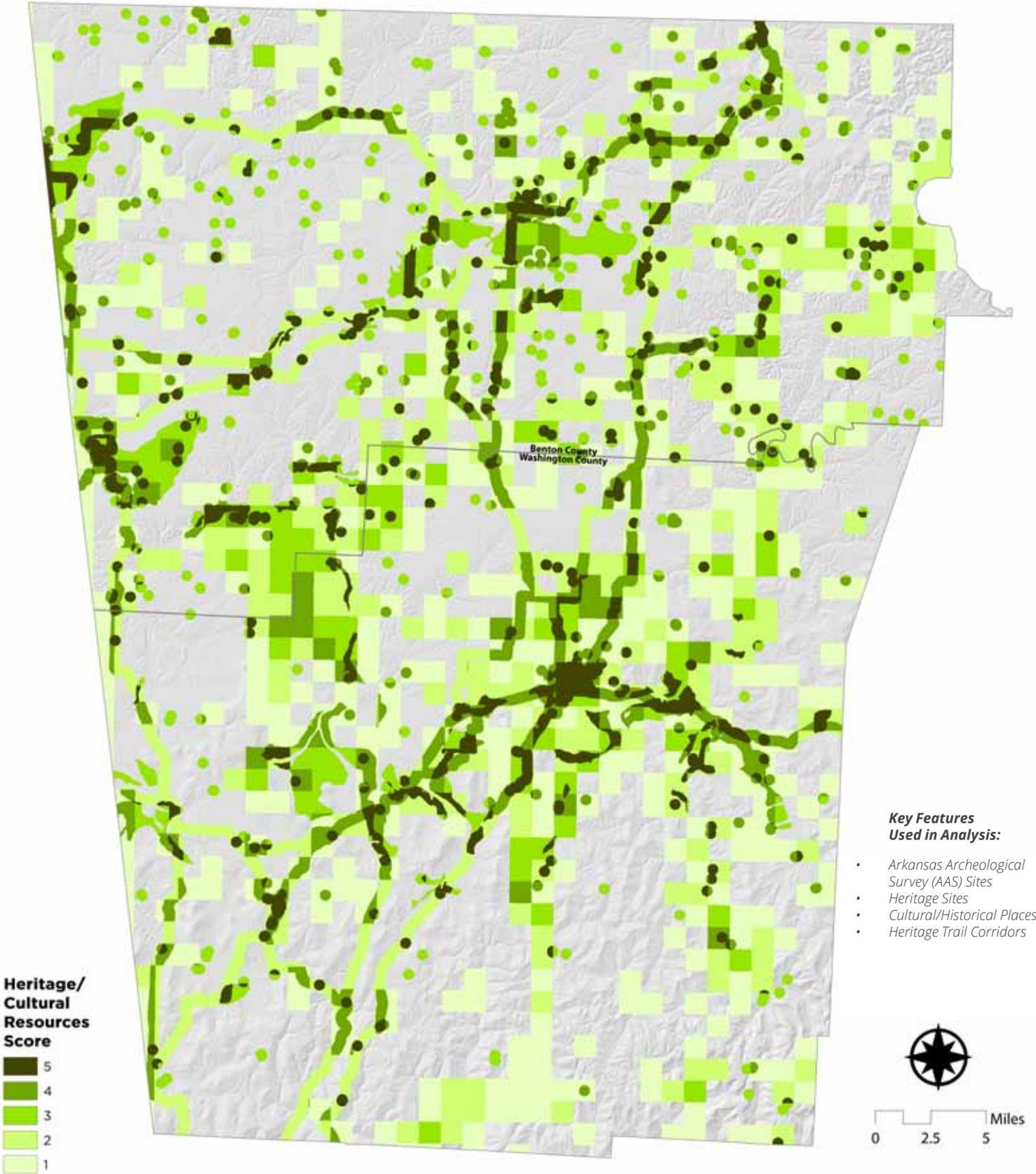
Data for the region's agricultural resources (listed below, right) were ranked according to their importance, and are shown in various shades of green below. Areas that have more of these features, and that have higher-value features, are shown in darker shades of green. Areas with fewer of these features, or that lack these features, are shown in lighter shades of green or grey/white. This is one of five maps used to inform the Overall Priority Map (Map 3.12). For more on this process, see pages 68-69. For more on the data used in this map (and its limitations), see pages 64-65. To view this map in more detail, please visit: [www.nwaopenspace.com/resources](http://www.nwaopenspace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).



**MAP 3.10**

**HERITAGE & CULTURAL RESOURCES PRIORITY MAP**

Data for the region's historic and cultural resources (listed below, right) were ranked according to their importance, and are shown in various shades of green below. Areas that have more of these features, and that have higher-value features, are shown in darker shades of green. Areas with fewer of these features, or that lack these features, are shown in lighter shades of green or grey/white. This is one of five maps used to inform the Overall Priority Map (Map 3.12). For more on this process, see pages 68-69. For more on the data used in this map, see pages 62-63. To view this map in more detail, please visit: [www.nwaopenspace.com/resources](http://www.nwaopenspace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).

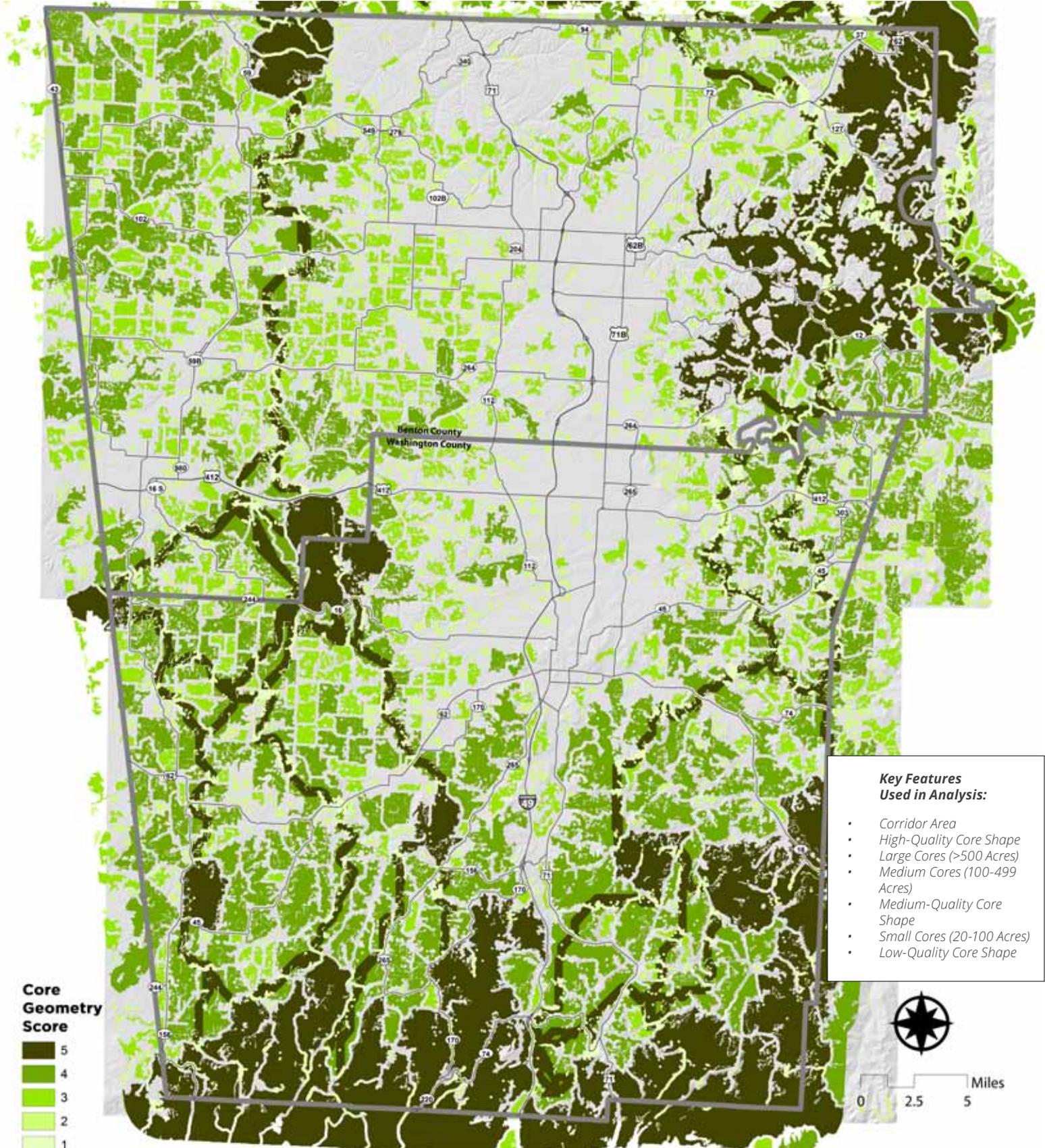




MAP 3.11

CORES & CORRIDORS PRIORITY MAP

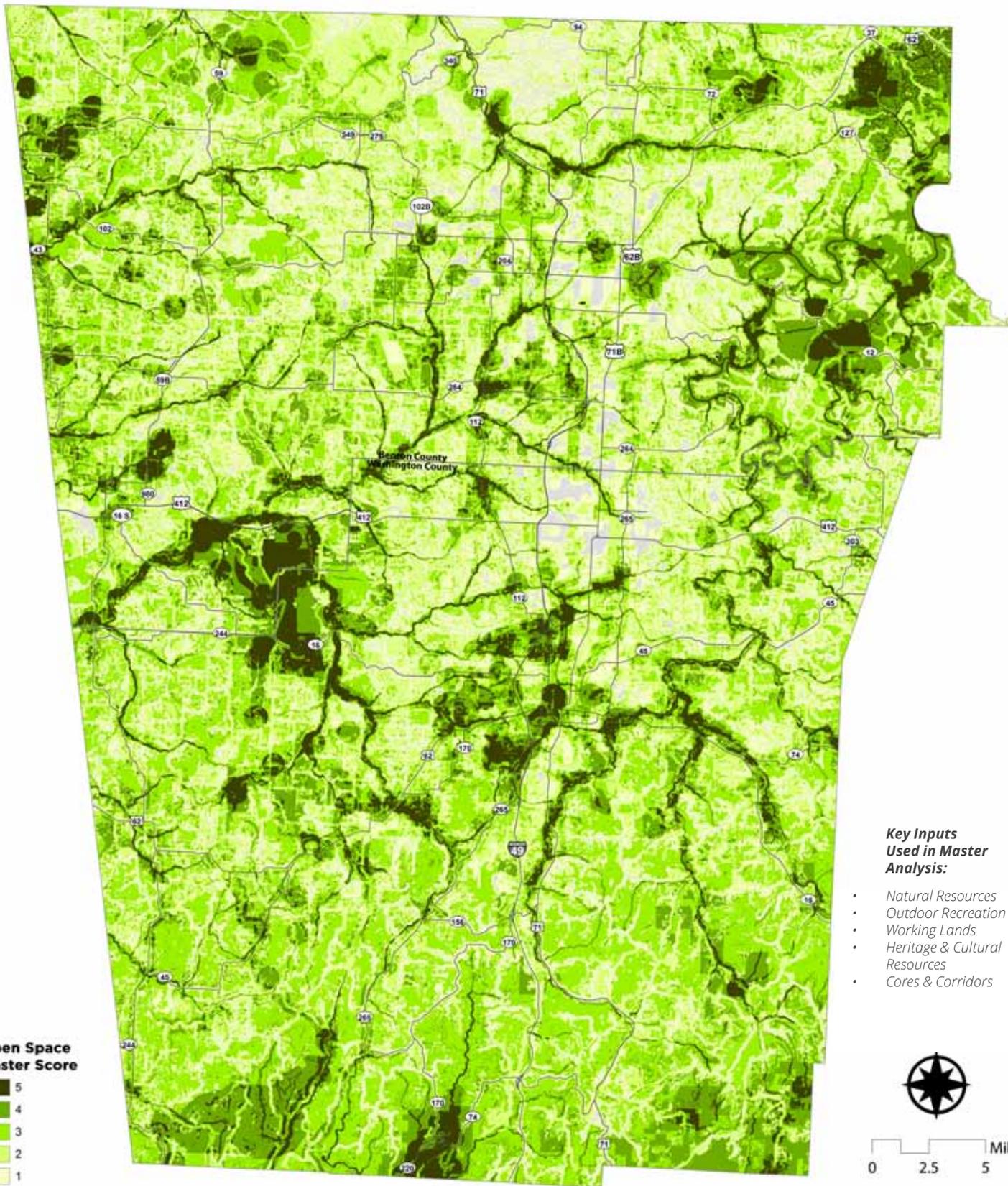
This map features the region's areas of forest, grassland, wetland, and water that are the most intact and undisturbed by roadways and development, shown in darker shades of green. Areas that are less connected and more impacted by roadways and development are shown in lighter shades of green or grey/white. For more on the process used to create this map, see the section "IDENTIFYING CORES AND CORRIDORS" on page 68. This is one of five maps used to inform the Overall Priority Map (Map 3.12). For more on this process, see pages 68-69. To view this map in more detail, please visit: [www.nwaopenspace.com/resources](http://www.nwaopenspace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).



OVERALL PRIORITY OPEN SPACE MAP



This overall map combines the previous five maps (pages 70-74), with the greatest emphasis on natural resource features, as directed by the Steering Committee, and as supported by input from the public comment form. Open space resources are shown with a priority range of 1-5, with the higher values shown in darker shades of green (for more on this process, see pages 68-69). This map should be considered as a starting point for regional discussions about conservation priorities. Areas will only be considered as candidates for conservation when there is a willing landowner that is interested in participating through conservation easements or other methods identified in the Open Space Plan. All landowners are welcome to submit ideas for land conservation, regardless of the priority ranking on these maps. For more on how this map should be used, see pages 79-80, and Chapter 4, Recommendations & Implementation. To view this map in more detail, please visit: [www.nwaopenspace.com/resources](http://www.nwaopenspace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).

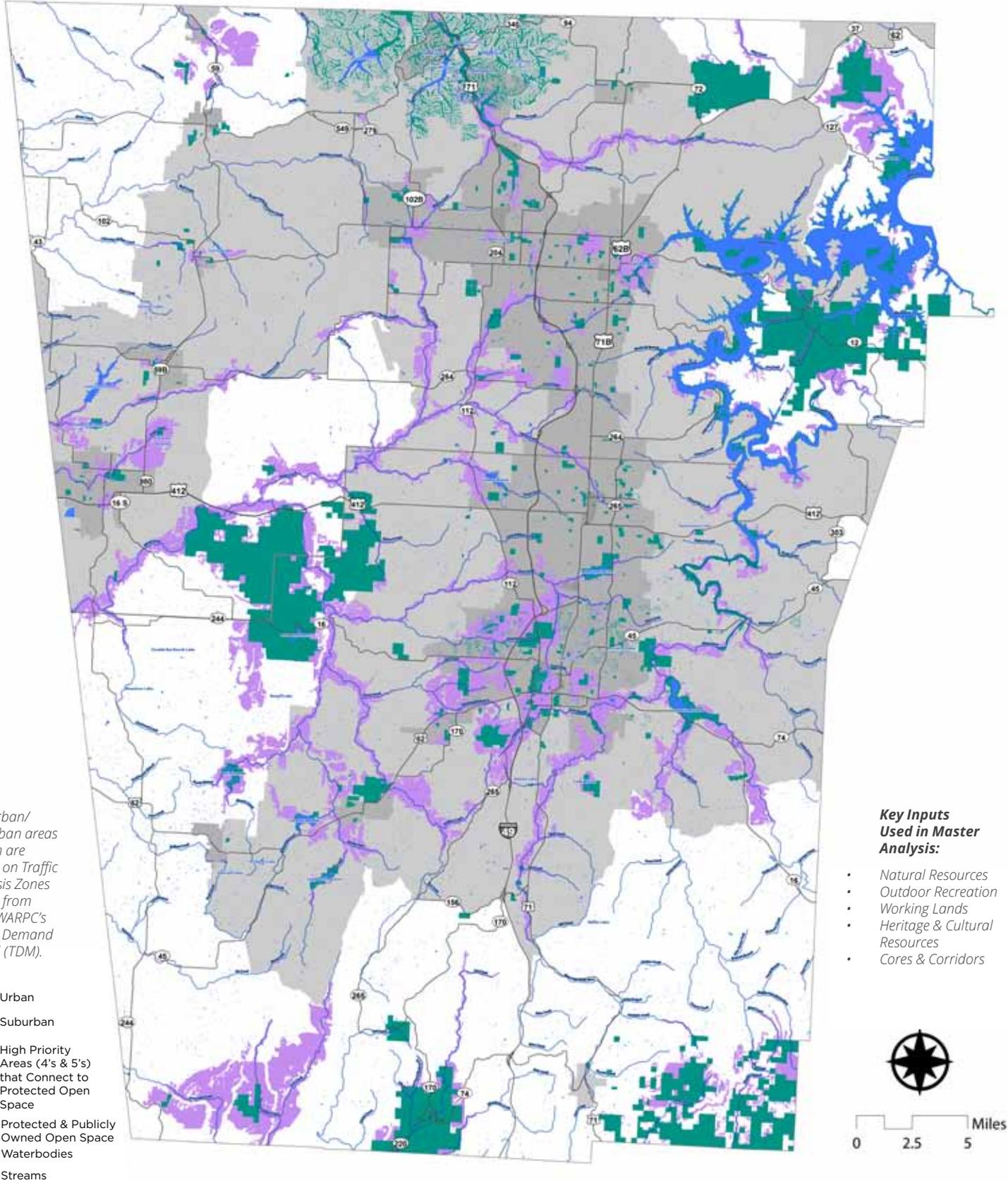




**MAP 3.14**

**HIGH PRIORITY AREAS THAT CONNECT TO EXISTING OPEN SPACES**

This map shows portions of the higher priority areas (shown in pink, from levels 4 & 5 of the Overall Priority Map) that align with existing protected and publicly owned open spaces (blue-green). This is useful to those who wish to focus conservation efforts on creating a connected open space network that ties to existing open spaces. Large, connected open spaces are key to supporting biodiversity, wildlife habitat and movement. The urban and suburban areas (grey) are also shown here to illustrate where these types of priorities may be under greater development pressure. To view this map in more detail, please visit: [www.nwaopenspace.com/resources](http://www.nwaopenspace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).



The urban/suburban areas shown are based on Traffic Analysis Zones (TAZs) from the NWARPC's Travel Demand Model (TDM).

-  Urban
-  Suburban
-  High Priority Areas (4's & 5's) that Connect to Protected Open Space
-  Protected & Publicly Owned Open Space
-  Waterbodies
-  Streams

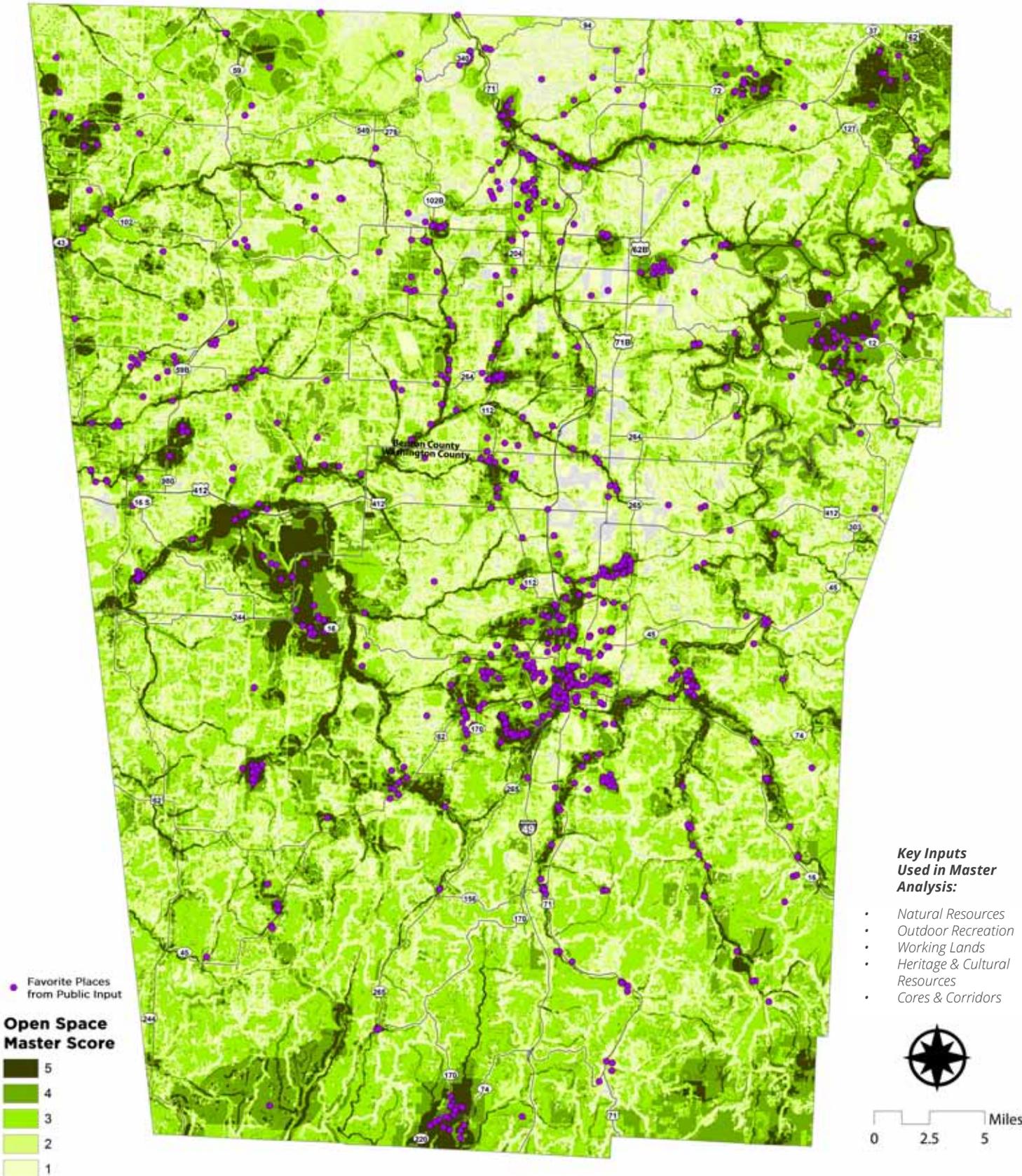
- Key Inputs Used in Master Analysis:**
- Natural Resources
  - Outdoor Recreation
  - Working Lands
  - Heritage & Cultural Resources
  - Cores & Corridors



**MAP 3.15**

**PRIORITY AREAS IN RELATION TO PUBLIC INPUT**

This map shows public input for 'Community Favorite Places' that was collected during seven public workshops in 2015, along with the input received through the online public input map ([www.nwaopenspace.com/participate](http://www.nwaopenspace.com/participate)). See page 39 for more information on how this map was developed. To view this map in more detail, please visit: [www.nwaopenspace.com/resources](http://www.nwaopenspace.com/resources) and [www.nwarpc.org](http://www.nwarpc.org).



## HOW TO USE THE PRIORITY MAPS

The main approach taken in most open space planning projects is to analyze the physical characteristics of a region's environment to find priority areas that would be the most beneficial to protect, according to what the community values most in terms of open space. This is the main approach covered in this chapter, and there are important aspects of this to highlight when considering how to use these priority maps:

- 1. Priority areas will be considered as candidates for protection only when there is a willing landowner that desires to conserve their land.** Willing landowners can protect their land through conservation easements, by selling or donating their land, or other methods identified in this Plan's conservation toolbox.
- 2. The intention is not to protect all lands identified as a high priority, nor is it to protect land only within the high priority areas.** All landowners who wish to participate in the open space program should be considered, regardless of whether the land in question is identified as a priority in the mapping analysis.
- 3. Different sites will have different objectives for conservation.** A balanced approach should be taken in selecting a range of site types that reflect what people value most in terms of open space in Northwest Arkansas. Refer to the results of this Plan's public comment form, which focused on what people feel is most important in terms of open space.
- 4. The priority mapping in this chapter is data-driven and fact-based, but is still only a tool.** The methodology used in this Plan combines the best practices for geographic information system (GIS) analysis outlined by the U.S. Forest Service and the Arkansas Forestry Commission, as well as best practices for analysis from award-winning open space projects in other communities. This does not mean it is a perfect tool. Care should be taken when considering candidates for protection to be sure on-the-ground conditions reflect what is communicated by the analysis.
- 5. The priority mapping will need to be updated regularly to remain relevant.** It is recommended that a comprehensive list of data updates and needs be kept on an ongoing basis, with the actual updates to the data and analysis occurring annually or as needed based on new data or techniques. This will reduce the amount of labor required for ongoing maintenance while also ensuring it stays current. Adjustments and improvements to the methodology are also anticipated, as new tools for analysis and new data become available. For example, better (more representative) data is needed to describe the region's working lands, which is currently based on land cover and soil data, rather than on actual locations of farms and types of farms.
- 6. Not all aspects of this Plan can be addressed by protecting priority areas identified in the mapping analysis.** The best practices related to open space, along with this Plan's conservation toolbox, represent the many other ways in which the goals of this Plan could be addressed.

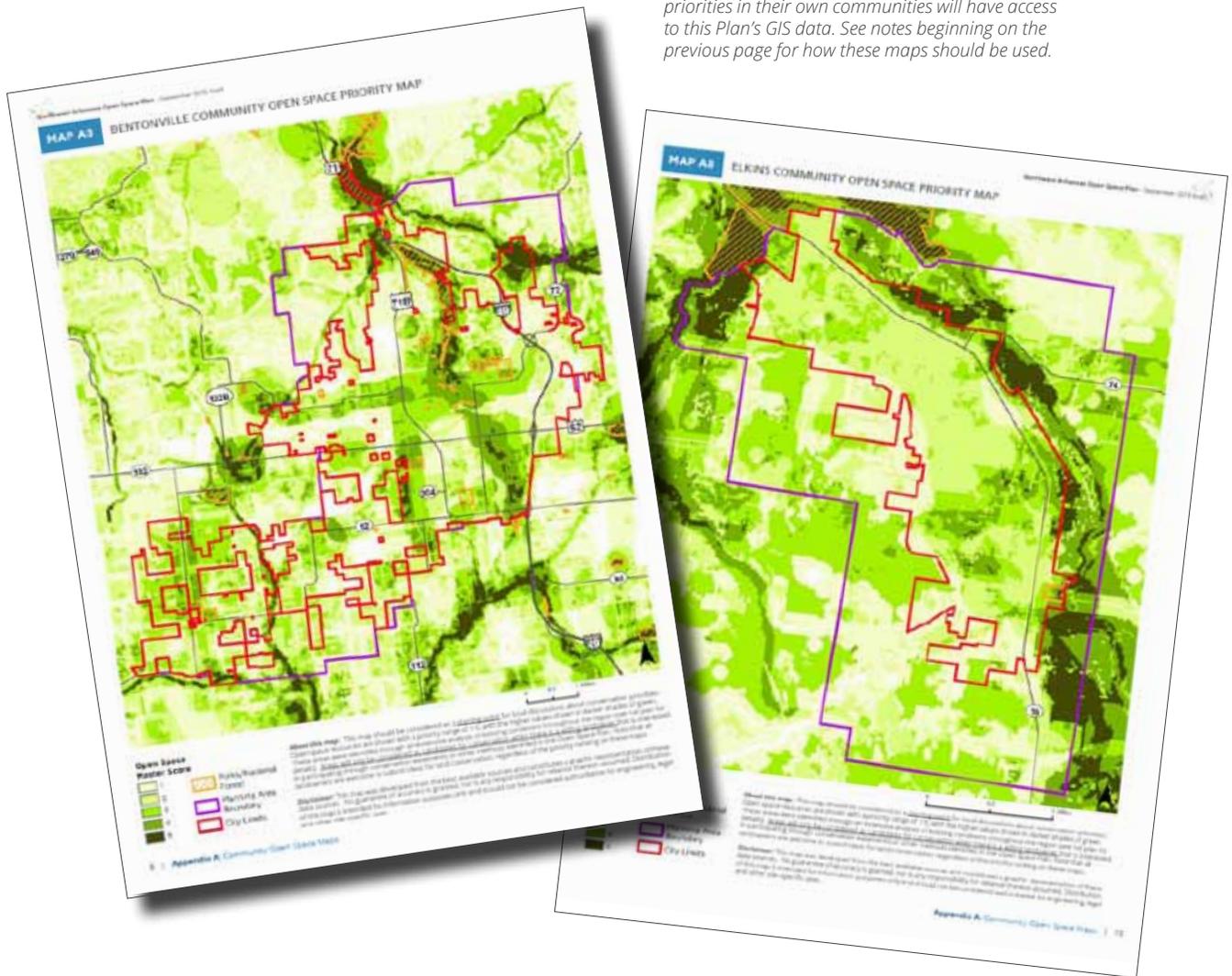


Finally, these maps are intended to be used by multiple agencies and project partners. For example, local and regional organizations that are focused primarily on water resources may benefit most by concentrating on areas identified in the Natural Resources Priority Map rather than the Overall Priority Open Space Map, and similarly for organizations focused on historic and cultural preservation, working lands, and so forth. However, the Overall Priority Open Space Map may be more useful when multiple organizations with multiple interests are partnering for conservation purposes. For more on how this map should be used, see Chapter 4, Recommendations & Implementation.

### LOCAL COMMUNITY OPEN SPACE MAPS

All 34 local government agencies who wish to identify priorities in their own communities may use this data as well. The appendix provides a municipal-scale version of the overall priority map for each community in the region, as of the publishing of this report. Further analysis and future updates will be coordinated through the managing entity of the open space program. GIS data will be available for creation of local maps for local purposes.

*All 34 local government agencies who wish to identify priorities in their own communities will have access to this Plan's GIS data. See notes beginning on the previous page for how these maps should be used.*



*Stakeholder input on the mapping process and plan.*



*Draft and final plan presentations where the mapping process and analysis were presented to the public.*



# 4 RECOMMENDATIONS & IMPLEMENTATION

*“Rather than develop a piecemeal, small scale effort, a more effective, large scale, integrated approach is needed to develop a holistic view of the interconnections of our natural resources. Planning, acquisition, and restoration projects need to be done at this large scale level in order to accelerate protection of air, land, and water quality, build partnerships to foster understanding of how to use and protect the environment, and to provide a public role in planning, implementation, and evaluation of resource programs. This development of a NW Arkansas Open Space Plan has the potential to address open space in such a manner.”*

- James Gately, Association for Beaver Lake Environment (ABLE)

## OVERVIEW

Conserving and protecting valued open space resources in Northwest Arkansas will require a concerted community effort, and a unique public and private partnership among local governments, private sector organizations, landowners and residents.

As NW Arkansas continues to grow, expand its urban boundaries, and transform land throughout the region, the community will need to implement a program of land and water conservation to protect critically significant natural resources and the lifestyle that residents cherish.

There are six key recommendations for implementing this Plan:

1. Embrace a vision for open space conservation that inspires residents.
2. Develop local leadership that can carry out the objectives of this Plan.
3. Establish a framework for how the program will operate.
4. Establish funding sources to support conservation.
5. Draw from a “toolbox” of strategies in support of land conservation.
6. Carry out best practices that result in resource conservation.



*Steering Committee tour of a site in Elm Springs with significant Civil War history and natural resources.*



This chapter of the Open Space Plan offers guidance and recommendations on how to achieve the vision, goals, and objectives defined within this Plan, as well as the elements defined herein.

### **COMPELLING VISION**

This Plan defines a compelling vision for open space conservation. Simply put, as NW Arkansas continues to grow, it is important to “conserve some country as we grow.” The benefits of open space are clearly articulated in this Plan. Open space protects the water we drink, the air we breathe, and the landscapes we call home. Open space is important to everyone in NW Arkansas, as it shapes the lives and wellbeing of the people that reside in the region.

### **LEADERSHIP**

Based on work in other communities in the U.S., project consultants recommended that the managing entity should be a group that has:

- Public trust and a proven record of success
- Regional representation through an existing operating framework
- The ability to update and manage geographic information systems (GIS) mapping
- An understanding of open space concepts
- An understanding of the regional political landscape



*This plan's vision is to “conserve some country as we grow.” Above: Pea Ridge National Military Park.*

**RECOMMENDED LEADERSHIP FOR THE OPEN SPACE PROGRAM**



Given these parameters, the NW Arkansas Regional Planning Commission is the most appropriate organization, and leadership entity, to guide the implementation of this Open Space Plan. The NWARPC (the Commission) was organized under the provision of Act 26 of the 1955 Assembly of the State of Arkansas. Under this Act, the Commission is a representative organization for all of the local communities in the two-county NW Arkansas region. The Commission has in place the staff and organizational framework to oversee implementation of this Open Space Plan.

The Commission also has the authority to create an advisory group, which can be named the Open Space Committee, that can be similar in size, structure, and function to the existing Technical Advisory Committee. This Open Space Committee can serve as the local advocate and “champion” for this Plan. The size of the Open Space Committee can be established by the NWARPC with input from NWARPC staff. Similar committees in other regions have memberships of approximately 15 to 20

persons, but this region may want to include more, so that every community could be represented.

Under the above proposal, the ultimate authority and decision maker for the implementation of the Open Space Plan would be the leadership (members) of the NWARPC. NWARPC staff and the Open Space Committee would provide technical support and advice to the Commission. The Commission should adopt an annual work plan, at the beginning of each fiscal year, that outlines the goals and objectives of the Northwest Arkansas Open Space program. This should include an annual budget that supports the actions and activities of the Program.

The Commission staff will be responsible for hosting meetings of the Committee, developing meeting agendas, preparing meeting minutes, and providing other technical materials that are needed by the Committee and the Commission in carrying out its duties and responsibilities.



## **PRIORITY ACTIVITIES AND PHASING**

Upon adoption of this Open Space Plan, a variety of work activities will need to be undertaken by the Commission, NWARPC staff, project partners and the Open Space Committee. These activities are described in greater detail, in accordance with a phased implementation approach on the following pages.

### ***PHASE ONE PROGRAM (2016)***

The Phase One work program for the Northwest Arkansas Open Space Plan builds upon the work that was undertaken to complete this Plan and is primarily oriented toward continued outreach and education as well as identification and prioritization of conservation initiatives.

#### *EDUCATION AND OUTREACH*

Most importantly, the Commission, NWARPC staff, and the Open Space Committee should continue to engage the residents of NW Arkansas in conversations and discussions regarding open space conservation and protection. This includes presentations to landowners, local organizations, schools, community leaders, and others interested in issues related to open space. It could also include a media campaign, with commercials, news features, print, and social media (for example, see Fayetteville Natural Heritage Association's

***“Almost everyone, in both rural and urban areas, cares about water quality and wildlife habitat. They still may not make the connection between open space conservation and these topics”  
- Terri Lane, Northwest Arkansas Land Trust***

promotional video on YouTube for “*Green Infrastructure in our Communities*”). An “Annual Open Space Project Award” for both public and private efforts that support the Open Space Plan objectives and priorities should also be considered.

Additionally, the Commission should enter into a working agreement with an organization like the Trust for Public Land, who can begin to specifically focus on preparing a ballot initiative in support of a local dedicated recurring source of funding for open space conservation.

The Commission should also partner with organizations like the Illinois River Watershed Partnership, Beaver Watershed Alliance, and Farm Bureau, to name a few, to conduct outreach and education programs about open space conservation. This outreach should be accomplished throughout the calendar year.

#### *MAINTAIN OFFICIAL OPEN SPACE MAP*

The Commission and NWARPC staff should be the official repository for a regional open space map. A base map for open space conservation was established for the purposes of this Plan, and it will need to be updated and maintained by the Commission as elements of this Plan are implemented.

#### *LAND CONSERVATION*

Building upon the momentum of the Northwest Arkansas Razorback Regional Greenway, the adopted Northwest Arkansas Regional Bicycle and Pedestrian Plan, and successful open space conservation efforts, such as Kessler Mountain and Devil’s Eyebrow, the Commission, staff, and Open Space Committee should continue to identify and prioritize targeted open space conservation,

using the process discussed on pages 88-89. The open spaces identified in this process would form the basis for what would be funded if a measure is approved by voters, or if applicable grants are pursued and awarded that match the projects identified.

NWARPC staff, Commission and Open Space Committee should undertake a thorough review of programs that are listed within the Conservation Toolbox and the best practices listed at the end of this chapter which support open space conservation.

### ***PHASE TWO PROGRAM (2017-2018)***

A primary focus of the Phase Two work program for the Northwest Arkansas Open Space Plan would be the passage of a ballot initiative in support of a local, dedicated and recurring source of funding for open space conservation.

#### *OPEN SPACE FUNDING*

Hopefully, the polling of voters and framing of a ballot initiative in support of a local dedicated funding for Open Space conservation is completed in Phase One and, therefore, a ballot initiative would be ready for a November 2017 election cycle.

If the measure is approved by voters, the next step will be to implement projects identified in the “LAND CONSERVATION” step from phase one. To maximize effectiveness of the program, the Commission, staff, and Open Space Committee should outline an approach and plan of action that leverages funds from the local dedicated funding source against local, regional, state, and federal public sector and private sector funding programs.

#### *EDUCATION AND OUTREACH*

It will be very important for the Commission, staff, and Open Space Committee to continue its outreach and education programs. This will be especially the case if and when the ballot initiative is put to a vote. A transparent accounting that focuses on the use of local funds will be needed. Additionally, the Open Space Program needs to chart and tout its success in addressing local needs with respect to water quality, air quality, farmland protection, and other benefits.

#### *LAND CONSERVATION*

The Commission, staff, and Open Space Committee should have a methodology and prioritized map of areas targeted for conservation. The Open Space Program should be making full use of the Conservation Toolbox to conserve and protect a variety of open space resources across the two county region.

### ***PHASE THREE PROGRAM (2019 AND BEYOND)***

For the Phase Three work program, the goal for the Commission, staff, and Open Space Committee would be to focus on utilizing the resources of the recurring revenue to secure matching funds and acquire targeted open space parcels. Annual work programs should be filed that describe priority parcels of land to be acquired, summarize the outreach and education programs that are being offered, and provide for updates on the accomplishments of the Open Space Program.



Above: Terri Lane of the Northwest Arkansas Land Trust leads a tour of Wilson Springs for this Plan's Steering Committee. The future Open Space Committee should include some members of this Plan's Steering Committee, as many of them are active leaders in regional conservation efforts.

### RECOMMENDED PROGRAM FRAMEWORK

As noted at the outset of this planning process, the purpose of this Plan is to develop a coordinated, voluntary program to protect and promote the region's most valued natural landscapes and open spaces. The goal of the program is to create opportunities for landowners, organizations, and local governments to have a place to go to nominate projects for conservation, and to provide a strategy for how those nominations are addressed. **Various types of natural landscapes will need to be protected in order to reflect the goals of this Plan and public input received. Examples of the types of land that could be protected as part of this program include:**

- Natural areas that support walking, hiking, biking, and exploring;
- Natural forests, prairies and other wildlife habitat;
- Natural areas near wetlands; streams and floodplains; rivers and lakes;
- Natural and native open spaces;
- Small neighborhood parks and green spaces;
- Areas for stewardship and environmental education;

- Areas that support outdoor recreation and historic/cultural landscapes.
- Farmland and rural landscapes

The following sections provide guidance for how projects should be selected and evaluated for funding through a strategic, regional process.

### SELECTING PROJECTS

This Plan's prioritization maps serve as a guide only. They show prioritized tracts of land throughout the region based on technical data. Rather than generating a listing of projects based on mapping, the selection of projects should instead be based on a community-driven approach that uses the mapping as a starting point and a tool for analysis.

Communities, organizations, family farm owners, and individual landowners will decide what they consider as priorities to submit as part of the program. Potential projects will be nominated to the open space committee through a periodic call for proposals. Nominations would come from individual land owners, non-profits, community groups, businesses, and municipalities.

The Open Space Committee would then discuss and evaluate submittals in two ways: A technical evaluation and a community-driven evaluation. Any actions proposed from the committee would then go to the NWARPC leadership for approval.

## KEY REASONS FOR A COORDINATED REGIONAL OPEN SPACE PROGRAM

According to input from existing organizations, such as the NWA Land Trust, the IRWP and the BWA:

- Partnerships are difficult without a coordinated approach.
- The level of need for conservation exceeds available funding for conservation.
- The conservation approach is currently reactionary in nature, rather than planned and strategic.
- Some landowners and farmers may be interested in protecting their land and/or staying in farming, but many cannot afford not to sell their land for development – and a tax break from an easement is often not enough.

### ***TECHNICAL EVALUATION: HOW WELL DOES THE PROJECT ALIGN WITH THE PRIORITY MAPPING ANALYSIS?***

Key considerations in the technical evaluation should include:

- How well does the project align with the higher priority areas in the mapping analysis? As stated in Chapter 3, the goal of the program is not to conserve all high priority areas identified in the mapping analysis, nor is it to only conserve within high priority areas (see page 79 for more on how to use the priority maps).
- What data limitations may have influenced the ranking of the project on the priority maps (i.e., what makes the project special that was not captured in the mapping analysis alone)?
- What is the degree of development pressure on the site in question? See Map 3.13 on page 76, which shows the overall priority map overlaid with potential future growth areas.
- Is there potential for the nominated project to connect with existing open spaces? See Map 3.14 on page 77, which shows the overall priority map overlaid with existing publicly-owned/protected lands and conservation easements.
- Are there guidelines or restrictions associated with funding at the time of the evaluation that help or hinder the viability of the project in question?

### ***COMMUNITY-DRIVEN EVALUATION: HOW WELL DOES THE PROJECT COMPARE GIVEN OTHER KEY FACTORS?***

Key considerations in the community-driven evaluation should include:

- Is there a willing landowner? The involvement of a willing landowner is an absolute prerequisite for this program.
- What is the degree of partnership among multiple entities? Some funding sources highly value partnerships and give preference to submittals that show support across multiple groups.
- What is the level of local community support for the project? Has the site been identified in other local or regional plans or programs? Letters of support from locally elected officials, neighboring property owners, area businesses, and other community groups can also go a long way in documenting community support.
- How does the project and the potential uses of the site align with the public values for open space (page 43) and goals of this Plan (page 13)? Also refer to the public favorite places mapping described on pages 39 & 78.
- Have any matching funds been identified for this project? See the section that follows for more on how this program could be funded, and the role of matching funds,



## FUNDING THE OPEN SPACE PROGRAM

Every successful open space program in the United States shares one common trait – a local source of funding that is used to match and leverage other funding in support of open space conservation.

### **SEEK A VOTER-APPROVED LOCAL DEDICATED SOURCE OF FUNDING**

Achieving the vision, goals and objectives for the Northwest Arkansas Open Space Plan will require establishing a local, recurring source of dedicated funding. A stable and recurring local source of funding is needed to match other local, regional, state and federal funding, as well as private sector funding. The local funding source will generally be determined by taxing capacity, voter preference, and political will.

It may be necessary to engage a public policy, financing strategist, and polling firm (such as the Trust for Public Land) to further explore the feasibility, public acceptability, and potential investment and return for a two-county funding strategy for Open Space conservation. Careful consideration should be given to the implementation of funding sources that require voter approval.

### **In order to implement a voter-approved funding source, a three step approach is recommended: 1) feasibility research, 2) public opinion polling, and 3) ballot measure development.**

First, the financing capacity and the potential revenues that could be raised via different financing options will need to be explored. This research will help local leaders estimate how much revenue different options would raise and the potential impact on residents.

As an example, this Plan considers different revenues that could be generated from either a 1/8 penny or 1/4 penny sales tax increase (0.125 percent or 0.25 percent sales tax increase):

For an **1/8 penny** (0.125 percent) sales tax:

- Benton County would generate an estimated \$4,488,000 in local funding.
- Washington County would generate an estimated \$4,180,000 in local funding.

For a **1/4 penny** (0.25 percent) sales tax:

- Benton County would generate an estimated \$8,976,000 in local funding.
- Washington County would generate an estimated \$8,360,000 in local funding.

Second, scientific public opinion polling should be conducted to assess voter preferences (their willingness to fund open space conservation in relation to other public needs) and how much voters might be willing to spend. Polling will gauge the public’s local conservation priorities and help determine the preferred type and size of financing measure. Third, if the research and polling indicates a favorable voter response, a ballot measure could then be designed to reflect public priorities and a community’s conservation needs.

Specifically, this Plan recommends that NWARPC and its partners should continue to discuss the long-term benefits of open space conservation and implement the above program of action that gives consideration to future ballot initiatives.

# How Does a 1/4 Penny (0.25 percent) Sales Tax Impact Purchases?

A sales tax is just one option to consider, and it could be structured to fit the needs of the community. For example, it could be proposed in a way that:

- Combines the use of the tax for not just open space, but also for other community wants and needs like transportation improvements, trails, and greenways. Research should be done ahead of time that gauges public interests and priorities.
- Contains a “sunset” provision, so that it expires after a certain number of years, subject to renewal by referendum.

Further research is needed for how it could apply in Arkansas, but some sales tax initiatives are created so they do not apply to several commonly purchased items, such as unprepared food (i.e. groceries), gasoline, prescription drugs, and motor vehicles.

Some advantages of a sales tax include:

- Non-residents pay sales tax too, lessening the burden on property owners and elderly homeowners on fixed incomes. Northwest Arkansas’ growing tourism sector (with attractions like Crystal Bridges and the Razorback Regional Greenway) shifts the burden to even more non-residents as the sector grows.
- The 1/4 percent addition to the sales tax rate is the equivalent of 1/4 of one penny per dollar spent. To put that in perspective, this would be an additional:

1¢ on a \$4 purchase  
 25¢ on a \$100 purchase  
 75¢ on a \$300 purchase

Some disadvantages of a sales tax, as mentioned in public comment for this Open Space Plan, include the regressive nature of sales taxes in general, and the perception that it could deter investment in manufacturing production in the region.

**\$4 coffee**



**\$100 smart phone**



**\$300 hotel stay**





## HOW COMMUNITIES PAY FOR CONSERVATION *by the* TRUST FOR PUBLIC LAND

According to the Trust for Public Land, successful measures are the result of careful planning, hard work, and an understanding of public priorities. The process involves an assessment of public opinion about conservation and taxation and the design of a measure that does the following:

- “The land preservation benefit must be viewed by voters as a compelling need. Whether it addresses water quality protection, farmland preservation, or urban parks and playgrounds, proponents must understand voters’ priorities and what they consider a fundamental, compelling need.
- The tax must be affordable. Voters have a specific taxing threshold, even to support benefits they find compelling. Find out how much voters are willing to spend (not what the ideal program would cost) and design your measure accordingly.
- Voters must have confidence that those in charge of spending the money will be accountable and responsible. Fiscal safeguards written into a measure can assure anxious voters that their tax dollars are being spent wisely. Safeguards include fiscal audits, administrative cost caps, citizen advisory committee reviews, and sunset clauses.”

Once such a measure is designed, a good campaign must be conducted to build broad support from community leaders and organizations and to communicate the key benefits of the measure to undecided voters (Hopper, K., and Ernest Cook).

**A MATCHING FUNDS PROGRAM**

There are a number of funding programs that support open space conservation (listed in Appendix C of this report) and a number of potential sources for local matches (listed below).

**AMOUNT OF FUNDING REQUIRED**

While there is no specific amount of funding that is required to implement the open space program, it is advisable for the Commission, NWARPC staff, and the Open Space Committee to examine other communities where a local funding source has been established. In Charleston County, SC, as one example, a 25-year sales tax program is generating approximately \$250 million over the life of the tax (see example programs on pages 104-105).

**FINANCE MECHANISMS FOR OPEN SPACE**

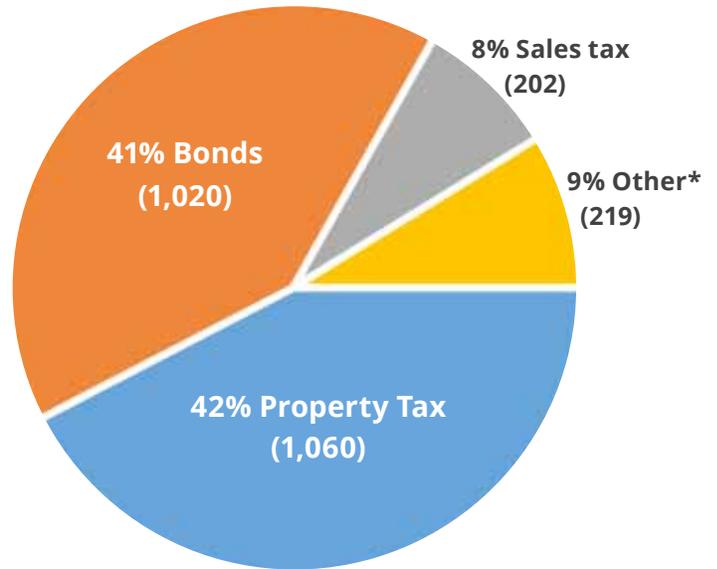
One of the first tasks in implementation for the Commission, staff, and Open Space Committee will be to make a determination as to the most appropriate funding methods for Northwest Arkansas. The following text offers different approaches that can be considered, including regional sales tax, city sales tax, bonds, property tax, grants, and other methods.

**Regional Sales Tax for Benton and Washington Counties.** As mentioned above, the amount of the sales tax, the duration of the tax, and the manner in which the tax is collected, utilized, and kept transparent for use in conservation would need to be determined. A two-county approach would allow for a consistent set of funding that could be applied to natural open space features that span multiple jurisdictions; a task that is more difficult when using more isolated, city-by-city funding sources. See page 91 for more on this option.

**City Sales Tax** - A city-by-city sales tax approach is another method of funding open space conservation and protection. Under this scenario, each municipal government within Benton and

**Conservation Finance Mechanisms Proposed in Local Ballot Measures Throughout the U.S. (1988-2016)**

Source: Trust for Public Land. Note: Since 1988, 75% of the total 2,501 proposed measures have passed.



\*"Other" includes real estate transfer tax, income tax, resort tax, parcel tax, oil and gas extraction tax, lottery, etc.

Washington counties would implement a sales tax within their municipal boundary. The sales tax would be collected and used to leverage other local, state, private, and national grant funding for projects. Local sales tax programs are subject to voter approval and individual ballot measures.

**Voter Approved Bond Referendum** - Benton and Washington counties, or each municipality, could decide to put on the ballot a referendum that would authorize each county to raise funds through the sale of bonds. A general obligation (G.O.) bond is long term borrowing of funds in which the county or municipality pledges the full faith and credit (its ability to raise revenues) to repay the debt over a specified term. GO bonds are typically used by local government to fund a variety of needed projects as they put less stress on local government budgets and offer an affordable method of raising significant capital in the short term. Local governments can fund GO bonds through a small increase in property tax (see below), for example assessing an additional 2 cents on \$100 worth of property



valuation. So a property valued at \$50,000 would generate an additional \$5.00 in annual taxes that is used to pay for the issuance of a GO bond. Local governments contemplating a bond issue should consult their bond attorney as the first step.

**Property Tax** - Property tax can be challenging, since it is already the main tax used to support many local services, such as local education, police/fire protection, local governments, some free medical services, and most of other local infrastructure. However, property tax is still a commonly used funding mechanism for conservation, with about 40% of all proposed measures since the 1980s being in the form of a property tax (see chart on previous page). For many such conservation programs, open space is seen as another form of essential public infrastructure, or “green infrastructure”.

**Real Estate Transfer Tax** - Real estate transfer taxes are taxes imposed by states, counties and municipalities on the transfer of the title of real property within the jurisdiction. Real estate transfer taxes can also be used for specific purposes, such as open space development. The State of Arkansas already has a real estate transfer tax so it would be a matter of authorizing local cities and counties to have a vote on this type of funding.

**Project-by-Project Basis** - Another method is to identify needed open space projects and work with public and private partners to raise a specific amount of funding required to undertake specific projects. This is a “catch as catch can” approach, and relies on the ability to successfully fund raise for each and every project. Examples of this type of approach include the recent conservation and protection of Kessler Mountain in Washington County. While this method has been successful in



*Sign from a conservation campaign in North Carolina. According to the Trust for Public Land, the number one reason that voters support open space measures across the country is to protect water resources.*

the past, it does not represent a comprehensive approach to open space program funding.

**In absence of a local dedicated source of funding, this project-by-project approach (including private partnerships, fundraising, crowd-sourcing, volunteerism, etc.) will be critical in order to establish the local matches required to leverage state, federal and private grants for open space.**

**State, Federal, and Private Grants** - Appendix C of this Plan features a table of more than 20 state, federal, and private funding opportunities that relate to the goals of this Plan. Most of the grants listed were found through funding research that took place in mid-2015, with most sources found on the federal funding website, [www.grants.gov](http://www.grants.gov). The site features all funding opportunities that are available from the 26 federal agencies that award grants. Also included in the appendix are certain funding opportunities through private sources, such as Walmart’s Acres for America matching grant program and the NWA Land Trust’s

“LandWise” program. For an important state-level source, see information about the Arkansas 1/8th-Cent Conservation Sales Tax below.

**Conservation Toolbox** - The “Conservation Toolbox” (starting on page 98) contains 27 tools that complement funding and offer effective ways to conserve and protect open space resources, including a variety of types of agreements that can be made with willing landowners, gift and donation examples, and management agreements. The “toolbox” is followed by summary tables of conservation easement programs and agricultural conservation programs.

**Arkansas 1/8th-Cent Conservation Sales Tax** - In 1996 the Arkansas Game and Fish Commission, the Arkansas Department of Parks and Tourism, the Department of Arkansas Heritage and the Keep Arkansas Beautiful Commission joined together to build a grassroots and legislative base that passed Amendment 75: The Arkansas’ 1/8th-Cent Conservation Sales Tax. This tax has been collected for nearly 20 years and has

done wonders for four state agencies that were in deep need of financial health. The Arkansas Game and Fish Commission and Arkansas State Parks each receive 45 percent of the revenue. The Department of Arkansas Heritage receives nine percent, and the Keep Arkansas Beautiful Commission receives one percent.

**The Northwest Arkansas Open Space Program should engage these agencies as they make decisions about how funding is spent in relation to conservation in the region.**

This Plan’s mapping analysis and inventory of needs and opportunities could be beneficial to these agencies in determining their own priorities for open space-related conservation efforts.

Below are some examples of the types of projects that have been supported in the past by this tax in Northwest Arkansas. The period of 1998 to 2007 is used because that is the most recent 10-year reporting period that outlines this level of detail. During that period, the tax generated a total of about \$48 million annually (Arkansas Game and Fish Commission).



Keeping the Natural State natural.



COMMISSION

*The Arkansas Game and Fish Commission, the Arkansas Department of Parks and Tourism, the Department of Arkansas Heritage and the Keep Arkansas Beautiful Commission joined together to create the Arkansas 1/8th-Cent Conservation Sales Tax.*



THE DEPARTMENT OF ARKANSAS  
HERITAGE



### **HOW IS THE ARKANSAS 1/8TH-CENT CONSERVATION SALES TAX TYPICALLY USED?**

A 2007 report highlights some the accomplishments by these agencies, made possible by the sales tax:

*“The long-range vision of voters has repaired campgrounds and renovated lodges, cabins and historic structures at state parks. It has built boat ramps at wildlife management areas and added wildlife enforcement officers. It has cleared hiking trails at natural areas and helped stoke the campaign to keep The Natural State free of litter. It has saved important pieces of Arkansas history and brought cultural opportunities to communities across the state. The tax has done work that casual visitors to natural places may not notice....But it’s hard to miss system-wide state park improvements or nature centers at Pine Bluff, Jonesboro, Fort Smith and Little Rock. It’s also hard to miss the restoration and expansion of the Old State House Museum, Historic Arkansas Museum and the Delta Cultural Center. These were undertaken because Arkansans said they wanted more educational and cultural opportunities.*

*The Arkansas Game and Fish Commission has acquired public property so hunters, anglers and wildlife watchers have more opportunities. Valuable coalitions have been built between public and private agencies. Moro Big Pine Natural Area WMA is a great example of what can be accomplished when several agencies pool their resources” (Arkansas Game and Fish Commission).*

### **REVENUE IS DIVIDED AMONG FOUR AGENCIES FOR THE FOLLOWING PURPOSES:**

#### **45 percent to Arkansas State Parks**

- Major maintenance and repairs
- Capital improvements and renovations
- Capital equipment
- Operating expenses
- Land acquisition

#### **45 percent to Arkansas Game and Fish Commission**

- Wildlife enforcement officers
- Land acquisition and improvements
- Conservation education
- Private land assistance and animal control
- Leased property
- Endangered species
- Restoration of cut programs

#### **1 percent to Keep Arkansas Beautiful**

- Education programs
- Anti-litter awareness

#### **9 percent to the Department of Arkansas Heritage**

- Rehabilitation of historic structures
- Enhancement of educational opportunities
- Acquisition and preservation of artifacts
- Creation of new grant-in-aid programs for the arts, historic preservation and museums
- Conservation and stewardship of the state’s system of natural areas
- Research activities to locate rare plant and animal species, and to discover more about them and their habitats

**TABLE 4.1 ARKANSAS 1/8TH-CENT CONSERVATION SALES TAX EXPENDITURES IN NWA (1998-2007)**

*This table is only based on the 10-year reporting period of 1998-2007, and therefore **does not include other significant projects since 2007.***  
 (Source: Arkansas Game and Fish Commission)

<b>Benton</b>		<b>Washington</b>	
Spavinaw Creek Trout Fishery, Wedington Unit of Ozark National Forest, Lake Bentonville, Crystal Lake, Beaver Lake, Charlie Craig Fish Hatchery, Beaver Lake Regional Office	\$964,085	Lake Elmdale Wedington Unit Lake Bob Kidd Illinois River White River	\$98,274
Hobbs	\$3,548,446	Devil's Den	\$6,469,070
Arkansas Natural Heritage Commission	\$40,234	Prairie Grove	\$4,371,600
Heritage Month/Arkansas Heritage Grants	\$34,968	Arkansas Natural Heritage Commission	\$20,002
Arkansas Arts Council	\$30,382	Heritage Month/Arkansas Heritage Grants	\$154,083
Arkansas Historic Preservation Program	\$67,650	Arkansas Arts Council	\$494,495
Keep Arkansas Beautiful Programs	n/a	Keep Arkansas Beautiful Programs	n/a
<b>Benton Total</b>	<b>\$4,685,765</b>	<b>Washington Total</b>	<b>\$11,607,524</b>
<i>NWA Total Expenditures (1998-2007)</i>			<i>\$16,293,289</i>
<i>Average Annual Expenditures in NWA from the Arkansas 1/8th-Cent Conservation Sales Tax</i>			<i>\$1,629,329</i>



*Devil's Den waterfall. Source: Brandon Rush via Flickr/Creative Commons.*



**TABLE 4.2 CONSERVATION TOOLBOX**

DESCRIPTION OF STRATEGY	BENEFIT	DRAWBACK
<p><b>CONSERVATION PRACTICES:</b> The term “conservation practices” refers to a variety of methods to conserve natural resources by a range of stakeholder-types. Examples of practices include stormwater management, low impact development, soil and nutrient management, riparian restoration, etc. Examples of stakeholders involved in these practices include developers, municipalities, households, farmers, landowners, forest managers, and businesses.</p>	<p>The main benefit of a conservation practice over purchasing land or conservation easements, is that practices can be implemented by land owners and managers without selling the land or putting it under easement. See the <i>“In-Depth Local Resources for Water Quality and Land Stewardship Best Practices”</i> listed on pages 122-123 of this Plan for more information on the types of practices being used in Northwest Arkansas, and their benefits.</p>	<p>One challenge in relying only on conservation practices to protect natural resources and open spaces, is that most practices are voluntary in nature, or may rely on incentives for participation by landowners, farmers, developers, and others. Education and encouragement may go a long way in increasing use of conservation practices, but there is a limit to which people are willing and able to invest time and resources into such practices.</p>
<p><b>CONSERVATION EASEMENT:</b> A legal agreement between a landowner and a qualified conservation organization or government agency to voluntarily restrict the use and development of the property. Easement grantee (i.e. local government) would hold a partial interest or some specified right in a parcel of land. A conservation, historic preservation, open space, or scenic easement is designed to protect a specific sensitive natural, historic, or cultural resource. An easement may be in effect for a specified period of time (see below) but is usually perpetual. <b>See Table 4.3 for more on Conservation Easement Programs.</b></p>	<p>Can be effective in preserving open space if it meets mutual goals of landowner and agency. Easement provisions are tailored to needs of landowner and site preservation goals. Landowner retains ownership, use and management of the land. Potential property, income, and estate tax benefits for donation or bargain sale of an easement if it is permanent. Easements run with the land, despite changes in ownership. Reduces costs for site protection when easements are acquired at less than fair market value for the protected area.</p>	<p>Baseline survey required to identify the extent of natural, historic, or cultural resources within the easement. Less protection than outright acquisition. Easement purchases may be costly, even though they are less than fee acquisition. Terms must be carefully and clearly outlined. Management intensive: easements must be monitored and enforced; grantee agency must work closely with landowners. Easement grantee must possess technical expertise and financial wherewithal to monitor and enforce easement. Easement restrictions may limit property resale opportunities. Tax benefits may not be sufficient motivation for landowner to donate or sell easement.</p>
<p><b>TEMPORARY CONSERVATION EASEMENT:</b> An easement may be in effect for a specified period of time. For example, California’s Williamson Act gives tax incentives to landowners who place agricultural easements on property for a minimum of 10 years under a “rolling contract” with local government.</p>	<p>Most of the above benefits apply, with exception of income and estate tax benefits. There is an added benefit of flexibility in terms of the length of the agreement. This flexibility may benefit the landowner if their vision for the property changes in the future. It also may benefit the larger community, if the land is later determined to have a higher or more desirable use than conservation.</p>	<p>Only permanent conservation easements qualify for income and estate tax benefits. Also, see the above drawbacks of conservation easements in general. The temporary nature of the agreement also does less to guarantee that the land will stay in conservation, which is a major drawback if that is the goal.</p>
<p><b>DONATION:</b> Owner grants full title and ownership to conservation agency.</p>	<p>Resources acquired at very low costs to the agency. Agency may receive endowment for long-term land stewardship. Donor may qualify for income tax deductions, estate tax relief, and property tax breaks.</p>	<p>Landowner loses potential income from sale of land. Receiving agency must accept responsibility and long-term costs of land management. Stewardship endowments may make donations cost prohibitive for landowner.</p>
<p><b>FEE SIMPLE ACQUISITION:</b> Usually the sale of land at full market value. Ownership and responsibilities are transferred completely to the buyer. While cash payment yields greatest return, taxes and other expenses may reduce net return.</p>	<p>The most straight forward acquisition method. Provides agency with full control over future of property.</p>	<p>Most expensive. Buyer assumes full responsibility for care and management of property. Loss of revenue when land is removed from tax rolls. Capital gains issues for seller.</p>
<p><b>RIGHT TO FARM:</b> A county right to farm and ranch ordinance protects agricultural enterprises from nuisance suits and complaints related to their agricultural activities. It gives constructive notice to potential residential landowners that agricultural activities and practices in the area will continue and may cause odors, land use practices and transportation impacts that may affect residential living.</p>	<p>Good program for protecting farm land in rapidly growing communities. Encourages farmers to continue their operations and offers legal protection for these land uses.</p>	<p>Depends on farmers to continue their operations, so it is not a method for long-term protection of this greenspace resource.</p>

**TABLE 4.2 CONSERVATION TOOLBOX (CONTINUED)**

DESCRIPTION OF STRATEGY	BENEFIT	DRAWBACK
<b>LAND BANKING:</b> Land is purchased and reserved for later use or development. Land could be leased for immediate use (i.e. agriculture or athletic field) or held for eventual resale with restrictions. Local government functions as a land trust. Many programs are funded through real estate transfer taxes.	Local government proactively identifies and purchases resource land. Lowers future preservation costs by working as a defense against future increases in land prices, speculation, and inappropriate development.	Expensive. Requires large up-front expenditures. Public agency must have staff to handle land trust functions of acquisition, management, lease, or resale. Real estate transfer tax for land acquisition would require local enabling legislation.
<b>LAND BANKING:</b> Land is purchased and reserved for later use or development. Land could be leased for immediate use (i.e. agriculture or athletic field) or held for eventual resale with restrictions. Local government functions as a land trust. Many programs are funded through real estate transfer taxes.	Local government proactively identifies and purchases resource land. Lowers future preservation costs by working as a defense against future increases in land prices, speculation, and inappropriate development.	Expensive. Requires large up-front expenditures. Public agency must have staff to handle land trust functions of acquisition, management, lease, or resale. Real estate transfer tax for land acquisition would require local enabling legislation.
<b>BARGAIN SALE:</b> Land, or a conservation easement, is purchased at less than fair market value. The difference between the bargain sale price and the easement or land's fair market value becomes a charitable donation.	Reduced acquisition costs. Seller may qualify for tax benefits for charitable donation. May offset capital gains on the sale.	Difficult and time-consuming to negotiate. May still be costly to acquire land.
<b>RIGHT OF FIRST REFUSAL:</b> Agreement giving conservation agency the option to match an offer and acquire the property if the landowner is approached by another buyer. This can be done so when the landowner decides to sell, the agency or organization has the first right to either purchase or refuse the purchase.	Agency can gain extra time to acquire funds for purchase.	Resource may be lost if offer can't be matched by conservation agency. Some landowners are unwilling to enter into this kind of binding agreement.
<b>ACQUISITION &amp; SALEBACK OR LEASE-BACK:</b> Agency or private organization acquires land, places a conservation easement, protective restrictions or covenants on the land, then resells or leases land.	Proceeds from sale or lease can offset acquisition costs. Land may be more attractive to buyer due to lower sale price resulting from restrictions. Management responsibilities assumed by new owner or tenant.	Complicated procedure. Owner retains responsibility for the land but may have less control over the property. Leases may not be suitable on some protected lands.
<b>CLUSTER DEVELOPMENT/ CONSERVATION SUBDIVISIONS:</b> Cluster development allows land developers to develop in a compact form at higher densities, thereby preserving greenspace within the same tract that would not be developed. This approach can be combined with conservation easements to protect the undeveloped greenspace.	Allows for flexibility in design to protect natural resource areas located on the parcel. Construction and infrastructure costs for land developers are reduced. Example: Montgomery Farm in Allen, TX: <a href="http://www.montgomeryfarm.com">www.montgomeryfarm.com</a>	Voluntary. If not implemented correctly, protected lands are often scattered and non-contiguous. Clustering may not be a preferred option for developers in NWA. Long-term management of common greenspace may become problematic for homeowner association.
<b>VOLUNTARY AGRICULTURAL DISTRICT:</b> Special districts established to promote continuation of agricultural and forestry activities. Ag districts are formed where farmers and ranchers agree to keep their land in agricultural uses.	Maintains land in agricultural and forestry use. Provides some protection from nuisance lawsuits against agricultural operations. Protects farmers/ranchers from nuisance complaints, provides tax relief, limits infrastructure expansion.	Voluntary participation. Minimum acreage criteria. Does not provide long-term protection. Most effective when several contiguous farms participate in areas with development pressure.
<b>PURCHASE OF DEVELOPMENT RIGHTS (PDR):</b> The owner's rights to develop a parcel of land are sold to the local government or to a land trust, usually through a conservation easement. Most PDR programs are voluntary and offer a viable financial option to interested landowners.	A proven technique for local communities with strong support to acquire lands for preservation. Owners who sell development rights receive an income and continue to use their land while retaining all other rights. Property taxes should be reduced.	Purchasing development rights can be expensive. Rarely protects enough land to relieve development pressure on resource land. Funding may not meet demand for easement purchases. Voluntary program means some resource areas may be lost.



**TABLE 4.2 CONSERVATION TOOLBOX (CONTINUED)**

DESCRIPTION OF STRATEGY	BENEFIT	DRAWBACK
<p><b>PURCHASE OF RIGHTS AND OTHER EASEMENTS:</b> In addition to purchasing development rights, other rights, such as the right to timber or extract minerals, could also be purchased. Other ‘customized’ easements could be developed as needed depending upon the resource in question.</p>	<p>For protection of scenic view-shed or forested buffer. Less expensive than fee-simple acquisition or PDR. Provides desired income to owner while keeping resource intact.</p>	<p>Mineral rights management issues must be resolved. Limited applicability for protecting open space.</p>
<p><b>LEASE:</b> An agreement between an agency and landowner to rent the land in order to protect and manage a sensitive resource.</p>	<p>Low cost approach to site protection. Landowner receives income and retains control of property. An alternative for preservation minded landowners not ready to commit to sale of easement. Restrictions can be included in the lease to direct the activities of the conservation agency on the land.</p>	<p>Short-term protection strategy. Leases are not permanent.</p>
<p><b>INSTALLMENT SALE:</b> A percentage of purchase price is deferred and paid over successive years.</p>	<p>Possible capital gains tax advantages for seller.</p>	<p>Complicates budgeting and financing of acquisitions.</p>
<p><b>ROLLING OPTION:</b> A series of options to buy a property, in portions or sections, extending the purchase over a period of years.</p>	<p>Used, when insufficient funds are available, to purchase land, at fair market value, over a period of time using smaller annual appropriations.</p>	<p>May not work for the landowner due to time period of payment.</p>
<p><b>DONATION VIA BEQUEST:</b> Land is donated to a conservation agency at the owner’s death through a will.</p>	<p>Reduces estate taxes and may benefit heirs with reduced inheritance taxes. Allows owner to retain full use and control over land while alive; ensure its protection after death.</p>	<p>No income tax deduction for donation of land through a will. Requires careful estate planning by the landowner.</p>
<p><b>DONATION WITH RESERVED LIFE ESTATE:</b> Owner retains rights to use all or part of the donated land for his or her remaining lifetime and the lifetimes of designated family members.</p>	<p>Allows owner to continue living on and using the property during his or her lifetime while ensuring the land’s protection. Allows designation of family members to remain on land.</p>	<p>Tax benefits may be earned prior to death; some types of open space may not qualify. May delay transfer of title to the conservation agency for a long period of time.</p>
<p><b>INTERGOVERNMENTAL PARTNERSHIP:</b> Federal, state, and local agencies form joint partnerships to own and manage land.</p>	<p>Sharing the responsibilities and costs of acquisition and management can protect larger or more expensive properties. Can foster county-wide cooperation to preserve greenspace.</p>	<p>Partners must agree on management strategies in order to reduce potential for conflict. Agency budgets and acquisition criteria may restrict acquisitions. Slower response time: acquisition opportunities may be lost due to agency procedures. May remove land from tax base.</p>
<p><b>AGENCY TRANSFER:</b> Government transfers excess land to another agency that can assume resource protection and management responsibilities.</p>	<p>Resource protection and management with little additional expenditures.</p>	<p>Excess property may not be suitable for resource protection. Obtaining fair market value for the property may be agency’s priority.</p>
<p><b>LAND EXCHANGE:</b> Land may be exchanged for another parcel that is more desirable for resource protection.</p>	<p>Lower acquisition costs. Scattered properties can be exchanged for a single, larger parcel. When equal value properties are exchanged, there is no tax on the transfer.</p>	<p>Complicated process; not widely known and rarely used. Subject to IRS regulations. Property owners must be willing to participate, and properties must be of equal value.</p>
<p><b>NONPROFIT ACQUISITION AND CONVEYANCE TO PUBLIC AGENCY:</b> Nonprofit organization (such as land trust) buys a parcel of land and resells it to a local government or other public agency.</p>	<p>Non-profits can often move more quickly to purchase and hold land until the public agency is able to buy it. Could reduce acquisition costs for public agency.</p>	<p>Local government must be willing to purchase land and assume management responsibilities.</p>

**TABLE 4.2 CONSERVATION TOOLBOX (CONTINUED)**

DESCRIPTION OF STRATEGY	BENEFIT	DRAWBACK
<p><b>JOINT VENTURE PARTNERSHIP:</b> Strategy used by public agencies and private organizations to accomplish projects serving mutual goals. For example, some government grant programs could be matched with both private contributions and public funds.</p>	<p>Partners share benefits, responsibilities, and costs of acquisition and management. Creates a coalition of support for protecting diverse resources. Brings diverse sources of knowledge and expertise to solve resource protection issues.</p>	<p>More complicated property management and decision-making. Conflicts in acquisition criteria and funding priorities must be resolved.</p>
<p><b>MANAGEMENT AGREEMENT:</b> Agreement between landowner and conservation agency to manage property to achieve resource conservation goals.</p>	<p>Owner may be eligible for direct payments, cost-share assistance, or other technical assistance from the agency. Management plan is developed based on owner's preservation aims.</p>	<p>Mutual agreement is more easily terminated than a lease. Agreements are not permanent.</p>
<p><b>MUTUAL COVENANTS:</b> Agreement between adjoining landowners to control future land uses through mutually agreed upon restrictions.</p>	<p>Permanent (unless parties agree to change): covenants can be enforced by any of the landowners or future landowners of the involved properties. Significant incentive to comply with restrictions, since all parties are aware of use controls. Can reduce property taxes.</p>	<p>Loss in market value from mutual covenants does not qualify as a charitable deduction for income tax purposes.</p>
<p><b>DEVELOPMENT IMPACT FEE:</b> Impact fees are also known as exactions. In its simplest form, the developer is charged an easy-to-calculate fee. A formula may be created to decide the cost that development will impose on the community. The formula can account for the area of land affected, the number of units built, the expected market value of those units, the distance from the fire and police stations, costs of building roads, and the expected population growth resulting from the construction. The exaction can come in forms other than money. The developer can be required to provide streets, sewers, street lights, parks, or other infrastructure or amenities. The town or county can develop a comprehensive system or formula or exactions can be formulated on a case-by-case basis from more general criteria.</p>	<p>A "pay-as-you-grow" program that really has been proven to help cities keep pace with rapid land development. A particularly useful tool for NWA, due to its fast pace of growth and rate of change.</p>	<p>Can be difficult to implement, as it must meet Supreme Court rulings on "essential nexus," fair and equitable implementation. Politically challenging because impact fees are generally not favored by the development community.</p>
<p><b>PARKLAND DEDICATION ORDINANCE:</b> Parkland dedication is a local government requirement imposed on subdivision developers or builders, mandating that they dedicate land for a park and/or pay a fee to be used by the government entity to acquire and develop park facilities. The City of Fayetteville currently has a parkland dedication ordinance in its UDO.</p>	<p>These dedications are a means of providing park facilities in newly developed areas of a jurisdiction without burdening existing city residents. They may be conceptualized as a type of user fee because the intent is that the landowner, developer, or new homeowners, who are responsible for creating the demand for the new park facilities, should pay for the cost of new parks.</p>	<p>Difficult to introduce new development regulations in some communities, and it does not address the need for conservation outside of new development areas.</p>



**TABLE 4.3 CONSERVATION EASEMENT PROGRAMS IN NORTHWEST ARKANSAS**

The information in this table was provided by the Illinois River Watershed Partnership (IRWP), in their "Handbook of Best Management Practices for the Upper Illinois River Watershed and Other Regional Watersheds" (Haggard, et al.).

PROGRAM NAME	DESCRIPTION	WHO IS ELIGIBLE?
Arkansas Historic Preservation Program	This program offers a flexible way for property owners to insure that historic land and structural resources will be here for future generations; the sites that qualify for this program must be certified as a historic structure or located within a National Register Historic District and certified by the National Park Service. Each easement accepted by the Arkansas Historic Preservation Program is negotiated on an individual basis with the property owner, and the program accepts easements that are granted in perpetuity.	Individual Property Owners, Municipalities, etc. The IRWP will help individual property owners identify and discuss the historic elements of individual properties, as well as individual goals, plans, and needs.
Conservation Reserve Enhancement Program	The Conservation Reserve Program (CRP) provides temporary easements of land. The easements obtained through the CRP usually last 15 years, and in this time, technical and financial assistance is provided to eligible participants to address soil, water, and other related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. The program is funded through the Commodity Credit Corporation (CCC).	Agricultural producers are eligible for this program on a competitive basis. The CRP is administered by the Farm Service Agency, and NRCS determines technical land eligibility.
Ducks Unlimited	This program accepts easements in perpetuity through its affiliation with the Wetlands American Trust, where Ducks Unlimited agrees to monitor the conservation property on a yearly basis to insure the protection of the land's natural resources for years to come. This program desires to protect wetlands, riparian habitats and important uplands that benefit waterfowl and other wildlife, and to insure that future generations can enjoy these ecological services. Ducks Unlimited believes that most easements can benefit wildlife while producing economic return to individual property owners, and this partnership may result in reduced income and estate taxes for the landowners.	Individual Property Owners, Corporations and Other Organizations – With limited funds available, Ducks Unlimited makes every effort to ensure that conservation dollars are efficiently used.
Farms and Ranch Lands Protection Program (via the IRWP)	This is a USDA program that allows government and non-government organizations to acquire conservation easements from landowners, where the participating property owner agrees not to convert farmland into non-agricultural uses and to implement a conservation plan. Under this program, landowners would retain rights to use their property for agricultural purposes within the Upper Illinois River Watershed, while the IRWP would get individual commitments to implement conservation plans that minimize the potential impacts of agricultural practices and future non-agricultural development on agricultural lands.	Government Agencies and Non-Government Organizations – Proposals for this program must be submitted by the IRWP through the NRCS State Office during the application window. Funding availability for this program is variable.
Arkansas Forestry Legacy Program	This program was created to protect forested areas from potential land use changes, while still providing landowner rights to harvest and sell timber. The Forest Legacy Program would provide federal funding up to 75 percent of the cost of conservation easements or fee acquisition to the local organizations entering into these agreements.	The Arkansas Forestry Commission is the lead state agency for this program, and the Assessment of Need Plan documents eligibility criteria, sets guidelines, and identifies priority areas.
Northwest Arkansas Land Trust	The Northwest Arkansas Land Trust is dedicated to the conservation and responsible use of land in Benton, Carroll, Madison and Washington Counties; this organization helps to secure easements for agricultural, ecological, historic, recreational and scenic purposes across this region. Landowners can preserve special features on the property, define development limitations, and or conserve the landscape as a whole.	There are opportunities for the Northwest Arkansas Land Trust to partner with private landowners, government entities, and even real estate developers. See more on the "LandWise" program in this Plan's appendix.
The Nature Conservancy	For more than four decades, The Nature Conservancy has been using conservation easements to protect landscapes from development. The Nature Conservancy is already active in Northwest Arkansas, and this existing partnership can be used to promote further conservation.	Private Property Owners – Private property under conservation easement remains privately owned, and landowners often continue to live on the property.

**TABLE 4.4 AGRICULTURAL CONSERVATION PROGRAMS IN NORTHWEST ARKANSAS**

The information in this table was provided by the Illinois River Watershed Partnership (IRWP), in their “Handbook of Best Management Practices for the Upper Illinois River Watershed and Other Regional Watersheds” (Haggard, et al.).

PROGRAM NAME	DESCRIPTION
Agricultural Water Enhancement Program	The Agricultural Water Enhancement Program (AWEP) is a voluntary conservation initiative that enables the use of the Environmental Quality Incentives Program (EQIP) along with resources of eligible partners to provide financial and technical assistance to owners and operators of agricultural lands. Eligible producers who participate in a project area that is identified in an approved partner agreement and who have an active EQIP program application may be approved for assistance. Under AWEP, the Natural Resources Conservation Service (NRCS) enters into partnership agreements with eligible entities such as local or state government, agricultural associations or groups, and non-governmental organizations that work with agricultural producers who want to promote ground and surface water conservation or improve water quality on agricultural lands
Conservation Reserve Program	The Conservation Reserve Program (CRP) provides technical and financial assistance to eligible farmers and ranchers who want to address soil, water, and other related natural resource concerns on private lands in an environmentally beneficial and cost-effective manner. The program is either offered as a general program in which sign up is continuous and qualification is competitive, or as a prioritized program in which qualification is determined by priority area location, and the cost-share funds are distributed on a first come, first serve basis. CRP is funded through the Commodity Credit Corporation (CCC) and is administered by the Farm Service Agency (FSA). Technical land eligibility, conservation planning, and practice implementation are determined by NRCS. This program encourages farmers to convert environmentally sensitive acreage to vegetative cover, such as native grasses, wildlife plantings, trees, vegetative filter strips, or riparian buffers. Farmers receive an annual rental payment for the term of the multi-year contract, and cost sharing is provided to establish the NRCS conservation standard.
Environmental Quality Incentives Program	The Environmental Quality Incentives Program (EQIP) is a voluntary USDA Natural Resource Conservation Service (NRCS) Program that provides assistance to farmers to implement conservation practices and BMPs in order minimize potentially negative environmental impacts of agricultural management practices to water resources. EQIP specifically targets locally identified problems with natural resources, and high priority is given where agricultural improvements will help meet water quality objectives. EQIP offers contracts that provide incentive payments and cost sharing for conservation practices, such as manure management systems, pest management, erosion control, and other practices that maintain or improve the health of natural resources. EQIP requires that NRCS conservation practice standards be used in all incentive and cost-sharing projects.
Grazing Lands Conservation Initiative	The Natural Resources Conservation Service (NRCS) offers this program to help landowners address natural resource concerns related to pasture management. NRCS grassland specialists and conservation planners work with farmers on resource assessments of pastures to help design effective grazing systems. All owners and managers of private grazing lands are eligible to receive technical assistance from NRCS.
Wetland and Riparian Zones Tax Credit Program	The Wetland and Riparian Zones Tax Credit Program is a state program that provides a credit against the tax imposed by the Arkansas Income Tax Act for any taxpayer engaged in the development or restoration of wetlands and riparian zones. This program is designed to encourage private landowners to restore and enhance existing wetlands and riparian zones, and when possible, create new wetlands and riparian zones.
Wildlife Habitat Incentives Program	The Wildlife Habitat Incentives Program (WHIP) is a voluntary conservation program for landowners who want to develop and improve wildlife habitat primarily on private land. Through WHIP, the USDA NRCS provides both technical assistance and up to 75 percent cost-share assistance to establish upland, wetland, riparian, and aquatic habitat areas on private property. WHIP agreements between NRCS and the participant generally last five to 10 years from the date the agreement is signed. Participants in this program voluntarily limit future use of the land for a period of time, but retain private ownership.



## **NATIONAL EXAMPLES OF SUCCESSFUL OPEN SPACE PROGRAMS**

### ***CHARLESTON COUNTY GREENBELT PROGRAM (SC)***

County Council adopted the Greenbelt Plan in June 2006 which provides guidance on how the citizens said they want to see the Greenbelt portion of the sales tax spent.

So far, the Greenbelt Program has protected 20,530 acres of land in Charleston County. \$94 million has been awarded and \$2 million remains for urban projects only. The program is funded by the Transportation Sales Tax, which was approved in a county-wide referendum on Nov. 2, 2004. It is expected to raise \$1.3 billion for Charleston County over 25 years. Of the \$1.3 billion, \$221 million is designated for Greenbelts.

Greenbelt funds can be used to acquire interest in land for conservation, wetlands protection, historic and cultural preservation, parks, greenways and trails, and waterway access.

This program uses an urban and rural framework. Projects funded with Rural Program monies must occur in the Rural Area of Charleston County defined by the County's Comprehensive Plan as the municipalities and unincorporated areas that are located outside the Charleston County Urban-Suburban Growth Boundary. Projects funded with Urban Program monies must occur inside the Urban-Suburban Growth boundary.

One key to this project is its transparency and the information that has been provided to the public throughout the process. To learn more about this program and to see a model program web site, visit: <http://charlestoncountygreenbelt.org/>

### ***WAKE COUNTY OPEN SPACES PROGRAM (NC)***

The Wake County Consolidated Open Space Program is dedicated to protecting and managing high quality, natural lands and resources for the benefit of its citizens. Voters have overwhelmingly supported the program by approving \$91 million in bonds. Through surveys, citizens report the reasons they support the bond initiatives are to protect water quality, to preserve natural areas, and to promote a healthy environment.

Wake County is growing by approximately 25,000 people per year. That's 68 new people a day. Through its Consolidated Open Space Program, the County's goal is to protect sensitive lands and strike a balance between conservation and development. Through partnerships and the support of citizens, Wake County has protected more than 4,500 acres of open space and won national and state recognition as a leader among America's urban counties.

The Consolidated Open Space Program protects valuable open space in two primary ways:

- Purchasing parcels of land or conservation easements in targeted areas.
- Awarding matching funds to partnering organizations so they can purchase land and conservation easements to further open space goals.

Partnerships are important to the success of the Open Space Program. By leveraging funds and with the help of the partners, the County is able to extend the open space bond funds further.

For more information, visit: <http://www.wakegov.com/parks/openspace>

**ARAPAHOE COUNTY OPEN SPACES PROGRAM (CO)**

The Arapahoe County Open Spaces Department works to preserve natural and heritage areas, enhance neighborhood and regional parks and build and maintain trails. The Open Spaces Program began in 2003 when citizens of Arapahoe County voted to fund the program through a quarter-of-a-penny Open Space sales and use tax (25 cents on every \$100 spent). The tax was renewed in 2011 when voters approved extending the program to 2023. Revenue from the Open Space sales and use tax is designated for specific uses. See the example public information poster below that shows how the program’s revenue is spent. For more information, visit: <http://www.co.arapahoe.co.us/>

**OTHER EXAMPLES**

More information can be found online about other successful programs, such as:

- The Clark County Open Space Program (NV)
- Delaware Valley Regional Planning Commission - Greenspace Network (PA)
- Chester County Open Space Preservation (PA)
- Larimer County Open Lands Program (CO)
- Beaufort County Rural + Critical Land Preservation Program (SC)





## LOCAL AND REGIONAL SUCCESS STORIES

The following are exemplary models of open space conservation and resource protection that have taken place in NW Arkansas. These best practice examples offer guidance on how to determine resources in need of conservation and protection, form strategic partnerships, use elements of the Conservation Toolbox, and conserve open space.

### ***DEVIL'S EYEBROW***

This intriguing tract of land is a facility of the Arkansas Natural Heritage Commission and the Arkansas Game and Fish Commission. It is located at the northern end of Beaver Lake along Indian Creek. The rugged terrain consists of bluffs and steep limestone ridges. This landscape is host to rare and endangered species of plants and animals, supporting one of the highest concentrations of rare species in Arkansas,

including the rare Black Maple. It is also a popular winter roosting area for Bald Eagles.

The project involved a partnership between the Arkansas Natural Heritage Commission, the Nature Conservancy, the National Fish and Wildlife Foundation, Acres for America, Walmart, Arkansas Game and Fish, the University of Arkansas, the US Army Corps of Engineers and numerous local civic minded volunteers. A conservation easement was established across approximately 2,000 acres of land, and on May 3, 2013, the natural area was dedicated for public use.

This project is an example of where a national land conservation organization has partnered with local and state organizations, and leveraged the participation of the federal government, to conserve and protect thousands of acres of valued natural resources.



*Devil's Eyebrow (photo credit: Eric Hunt).*

### ***KESSLER MOUNTAIN***

Kessler Mountain is undoubtedly one of the City of Fayetteville and Washington County's most unique and treasured natural assets. This is one of the tallest peaks in Washington County, topping out at 1,854 feet in elevation. The total size of the regional park is 1,500 acres, most of which is in private ownership. Approximately 200 acres of land is owned by the City of Fayetteville. Another 435 acres has recently been purchased and dedicated as a preserve.

In addition to City ownership, the Kessler Mountain Greenways is an advocacy group that seeks to work with both public and private owners to maintain the natural character of the property and to keep hiking and biking trails open for public use.

This project is an outstanding example of where the public and private sector worked together to conserve a valued natural asset. In this case, conservation and protection is in practice by both the public and private sector.



*'Rock City' trail on Kessler Mountain.*



### ***NORTHWEST ARKANSAS RAZORBACK REGIONAL GREENWAY***

The NW Arkansas Razorback Regional Greenway is an exemplary project for land conservation, multi-modal transportation, economic development, and environmental stewardship. Among the many impressive accomplishments of the project is the manner in which it traverses a wide range of landscapes, from rural farm fields to the heart of three urban centers. For several years, local communities worked with landowners to either set aside, or in some cases purchase the land on which the Greenway and its associated facilities were constructed. Recent additions to the project included negotiating greenway easements on 129 separate parcels of land. The 36-mile regional trail is a model, not only for the region, but also for the

entire nation, on how to join land conservation with active transportation. The Greenway was officially opened and dedicated for public use on May 2, 2015.

This is a great example of a public and private partnership, and of the success that comes with leveraging funds from multiple sources. The funding for this project mainly came from a federal grant (USDOT) and a match provided by a local foundation (the Walton Family Foundation). With funding in place, the project partners were able to work proactively with numerous landowners, to plan, design, and develop an outstanding community resource project that is impacting the lives of thousands of local residents each and every day.



*The Razorback Regional Greenway.*

### **ILLINOIS RIVER WATERSHED PARTNERSHIP**

The Illinois River Watershed Partnership (IRWP) is one example of a NW Arkansas organization that is dedicated to the conservation and protection of regional land and water resources. IRWP is a model for other organizations in how it conducts its activities, connects with residents and landowners, and carries out its mission of advocacy.

One of the outstanding products from IRWP is the “Handbook of Best Practices for the Upper Illinois River and Other Regional Watersheds.” This

handbook offers local residents, whether they are farmers or residential landowners, with tools and methods for implementing a wide variety of conservation programs.

This is one example of a local conservation based organization that is accomplishing significant work year after year, for the betterment of the NW Arkansas regional community. This organization is led by outstanding professionals who work hard to leverage local, regional, state, and federal funding in their annual work activity.



*IRWP Executive Director, Dr. Delia Haak, leads a tour of Partner’s Lake at the Illinois River Watershed Sanctuary and Learning Center.*



### **WHITE RIVER STREAMBANK RESTORATION**

The City of Fayetteville, in partnership with the Watershed Conservation Resource Center (WCRC), has implemented a riverbank restoration of 1,000 linear feet on the White River using natural channel design principles. The stabilization and site restoration will help to meet multiple local and regional objectives relating to stream channel instability, water quality, and habitat. The objectives of the project include:

- Restore 1,000 feet of riverbank on the White River and reduce sediment and phosphorus loadings to the river from accelerated erosion.
- Develop a site specific, streambank restoration plan which addresses stream instability; landowner and local objectives; maximizes sediment & phosphorus reduction; maximizes habitat restoration.
- Restore riparian and protect existing riparian along with enhancement of terrestrial habitat and increase aquatic habitat in the stream watershed.
- Increase awareness and promote the use of natural channel design among landowners and the public.

A stabilization plan was implemented to stabilize the eroding bank using natural channel design techniques, which included rebuilding land mass along the eroding bank using toe wood and developing a bankfull bench. The toe wood will enhance the aquatic habitat at the site. The riparian was re-vegetated to enhance wildlife habitat and provide additional erosion control. The channel was modified through the restoration area based upon reference reach conditions for a river located in the same physiographic region. Reference reach data was collected to provide basic information needed for the site design. The City of Fayetteville and a private landowner are the property owners of the site. The City of Fayetteville plans to place approximately seven acres of the site in a deed restriction that will protect the stream restoration and adjacent riparian areas, but will still allow for trails to be constructed and recreational uses.

The WCRC is a non-profit organization that strives to protect, conserve, and restore natural resources by utilizing the watershed approach, environmental outreach, and providing planning and technical assistance to landowners, communities, and government.



*Before restoration (left) and after restoration (right). Photos from the Watershed Conservation Resource Center.*

### **HISTORIC CANE HILL**

Historic Cane Hill, settled by Europeans in 1827, was the earliest settlement in Washington County. This historic community in rural southwestern Washington County is home to a cluster of 16 properties listed in the National Register of Historic Places. This location is an exemplary open space of cultural/historical features that people are working to preserve. These features include historic businesses, homes, cemeteries, a church, a battlefield, and a mill that were important components of evolving livelihoods intimately connected to the open space of Northwest Arkansas.

Historic Cane Hill, an Arkansas non-profit and Federal 501(c)3, has led a significant effort to preserve this community. The Historic Cane Hill

Museum, which opened in 2015, tells a compelling story of a past life in Northwest Arkansas that serves as a foundation for Northwest Arkansas today.

***“Historic Cane Hill is dedicated to the Historic Preservation of Washington County, Arkansas. We place our preservation efforts primarily to western Washington County and the area and communities around Cane Hill, AR. Historically, many of the small communities were an interwoven network that worked together, interacted with one another, and shared a sense of place.” - Historic Cane Hill Mission Statement***



*Cane Hill Harvest Festival (harvesting sorghum) and students visiting Historic Cane Hill.*



### **BEYOND LAND CONSERVATION: PROGRAMS & PRACTICES THAT SUPPORT OPEN SPACE**

As mentioned at the outset of this chapter, not all aspects of this Plan can be addressed by protecting the priority areas identified in the mapping analysis. For example, fulfilling the goal of protecting water quality goes beyond protecting stream buffers, springs, and recharge areas. It also depends on how people care for and manage their land, regardless of its conservation status. Similarly, the goals of supporting local food production, access to outdoor recreation, and caring for our historic and cultural sites all require efforts outside of the sole practice of land conservation. They require the support and initiative from many types of individuals and organizations in the form of outreach, education, coordination, programming, special projects, events, and other activities.

The best practices described below are included in this Plan as ideas for potential initiatives that could be part of this open space program, supplementing the larger focus of land conservation. This is not a comprehensive list of programs and practices, but rather a list of what is recommended in Northwest Arkansas based on feedback from stakeholder interviews and resource group meetings conducted during this planning process. Some of these practices could also be launched by groups in the region independent of the official Open Space Program. Finally, several of these practices are already in place in Northwest Arkansas on various levels, and are noted as such in the descriptions below.



### **WILDLIFE FRIENDLY DEVELOPMENT**

Wildlife Friendly Development is a certification program that allows developments to be recognized as wildlife friendly after meeting sufficient criteria. Developers must meet a portion of these criteria throughout all phases of the development's planning and construction, and must maintain the criteria once the development is complete. This program differs slightly from typical habitat certification programs, as it is focused on development sites, rather than conservation sites.

- **Model Program:** Wildlife Friendly Development Certification (WFDC) in North Carolina is a collaboration between the N.C. Wildlife Resources Commission, N.C. Wildlife Federation and the N.C. chapter of the American Society of Landscape Architects. During the certification process, applicant developers familiarize themselves with the criteria, use checklists, consult with a review team, and modify the development design if needed before certification.
- **Model Development:** The Woodlands at Davidson <http://thewoodlandsatdavidson.com>
- **Potential Partners:** University of Arkansas Cooperative Extension Service, Arkansas Forestry Commission, Arkansas Game and Fish Commission, Arkansas Natural Resource Commission, and local organizations with direct experience in these types of programs, such as the Northwest Arkansas Land Trust.

**Online Resources:**

- Wildlife Friendly Development Certification Program: <http://ncwildcertify.org/>
- Wildlife Habitat Management for Arkansas Landowners: <http://www.uaex.edu/publications/pdf/MP483.pdf>
- National Wildlife Foundation's Certified Habitat Program: <http://www.nwf.org/What-We-Do/Protect-Habitat/On-the-Ground.aspx>

**CONSERVATION SUBDIVISIONS**

Conservation subdivisions (CSDs) are a design strategy that attempts to preserve undivided, buildable tracts of land as communal open space for residents (Arendt et al.). In a conservation subdivision, ideally 50 to 70 percent of the buildable land is set aside as open space by grouping homes on the developed portions of the land. The process, as promoted by landscape

architect Randall Arendt, begins by identifying land to be conserved and ends with drawing in lot lines for the planned homes. These design steps occur in an order opposite that of conventional subdivisions.

- **Model Development 1:** Tryon Farm: <http://www.tryonfarm.com/>
- **Model Development 2:** Prairie Crossing <http://www.prairiecrossing.com/>
- **Potential Partners:** University of Arkansas Cooperative Extension Service, Arkansas Forestry Commission, and local developers interested in creating communities with open space as a key feature.

**Online Resources:**

- Conservation Subdivision Handbook: <http://content.ces.ncsu.edu/conservation-subdivision-handbook.pdf>

*Images from "LID Low Impact Development: A Design Manual for Urban Areas" (Luoni, et al.)*



**25 houses and 4 commercial buildings on 5 acres**



**25 houses and 4 commercial buildings on 5 acres**



### URBAN AND COMMUNITY FORESTRY

Urban and Community Forestry (UCF) is a cooperative program of the US Forest Service that focuses on the stewardship of urban natural resources. With 80 percent of the nation’s population in urban areas, there are strong environmental, social, and economic cases to be made for the conservation of green spaces to guide growth and revitalize city centers and older suburbs.

- **Model Program:** Arkansas Urban Forestry Council’s Urban & Community Forestry Assistance Grants provides resources to non-profits, local and state government agencies, and educational institutions for urban forestry projects.
- **Potential Partners:** Arkansas Forestry Commission, Arkansas Urban Forestry Council, community groups such as the Fayetteville Natural Heritage Association (FNHA), and local communities that have completed urban forestry inventories, such as Fayetteville and Bentonville.

#### Online Resources:

- US Forest Service: <http://www.fs.fed.us/ucf/program.shtml>
- Arkansas Urban Forestry Council: <http://www.arkansastrees.org/>



### ARKANSAS Farm to School

### FARM-TO-FORK CAMPAIGN

Farm-to-Fork (or Farm-to-Table) refers to a movement concerned with producing food locally and delivering that food to local consumers. Farm-to-fork campaigns are often promoted by those within the agriculture, food service, and restaurant communities. It may also be associated with organic farming initiatives, sustainable agriculture, and community-supported agriculture.

- **Model Program:** Arkansas Farm-to-School - Farm to school practices enrich the connection communities have with fresh, healthy food and local farmers by changing food purchasing and education practices at schools and preschools. The three main farm to school practices are: local food procurement, nutrition education, and school gardens. In Arkansas, 27 school districts are using farm to school practices.
- **Model Local Business:** The Farmer’s Table
- **Potential Partners:** University of Arkansas Cooperative Extension Service, Ozark Slow Food, Arkansas Farm-to-School, interested local farms, restaurants, grocers, and businesses with direct local experience in this type of program, such as the Farmer’s Table in Fayetteville, and the White River Creamery, in Elkins.

#### Online Resources:

- Arkansas Farm-to-School: <http://www.arkansasfarmtoschool.org/index.php>



### **ACCESS TO NATURE FOR YOUTH**

As outlined in Chapter 1 of this Plan, there are many physical and mental health benefits associated with being active outdoors in natural environments. This Plan’s public comment form also asked people what they feel is most important about open space, and one of the key responses was having parks and open space that they can access from home and work. People want to have access to nature, and while most are able to achieve that on their own, others are not, especially children from lower-income families.

- **Model Program (example one):** To encourage and support city efforts that expand children’s access to nature, the National League of Cities partnered with the Children & Nature Network to launch the Cities Promoting Access to Nature initiative. This three-year project, made possible by a grant from The JPB Foundation, helps city leaders develop or expand strategies for getting more young people outdoors and connected to parks, green space and natural areas, with a focus on children and youth in economically stressed communities.

- **Model Program (example two):** Trips for Kids® (TFK®) has opened the world of cycling to over 140,500 at-risk youth since 1988 through mountain bike rides and Earn-A-Bike programs. There are over 85 Trips for Kids chapters in operation, but none listed in Arkansas to-date. The program combines lessons in confidence building, achievement, and environmental awareness through the development of practical skills, and the simple act of having fun in the outdoors.
- **Potential Partners:** National League of Cities, Children & Nature Network, Trips for Kids, local YMCAs, local parks and recreation departments, and local organizations such as the Bicycle Coalition of the Ozarks, Ozark Off-Road Cyclists, and the Illinois River Watershed Partnership.

#### **Online Resources:**

- The Children and Nature Network: Cities Promoting Access to Nature: <http://www.childrenandnature.org/initiatives/cities/>
- Trips for Kids: <http://www.tripsforkids.org/>



### **'MAIN STREET' PRESERVATION AND REVITALIZATION**

Over the past 34 years, the Main Street movement has transformed the way communities think about the revitalization of their historic downtowns and neighborhood commercial districts, and helped put historic preservation back in the community revitalization conversation. Cities and towns across the nation have come to see that a vibrant, sustainable community is only as healthy as its core. This is critical and relevant to the protection of open space in Northwest Arkansas (especially in smaller towns) because it encourages reinvestment in the traditional cores of our towns, rather than 'greenfield' development that is built in surrounding open spaces.

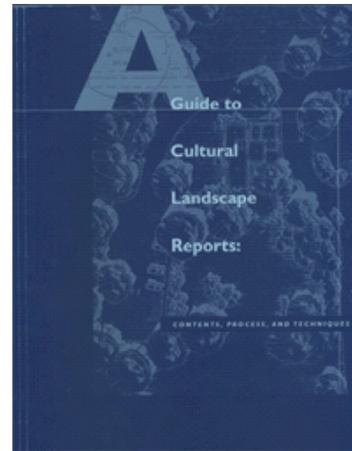
- **Model Program:** The Main Street Four Point Approach® is a unique preservation-based economic development tool administered by the National Main Street Center. It serves as the foundation for local initiatives to revitalize their districts by leveraging local assets—from cultural or architectural heritage to local enterprises and community pride. Through education, training, case-studies, and peer-to-peer learning, the National Main Street Center equips communities with the tools they need for long-term, comprehensive, preservation-based community revitalization.
- **Model Community:** El Dorado, Arkansas (winner of the 2009 Great American Main

Street Award, and participant in the program described above).

- **Potential Partners:** The National Trust for Historic Preservation, the National Main Street Center, local and regional historic preservation groups, downtown tourism and economic development organizations.

#### **Online Resources:**

- The National Trust for Historic Preservation: <http://www.preservationnation.org/>
- The National Main Street Center: <http://www.preservationnation.org/main-street>



### **CULTURAL LANDSCAPE REPORTS**

The National Park Service (NPS) uses a tool called a 'Cultural Landscape Report' (CLR) as the primary report that documents the history, significance, and treatment of a cultural landscape. A CLR evaluates the history and integrity of the landscape including any changes to its geographical context, features, materials, and use. Northwest Arkansas could benefit from documenting unprotected cultural and historic sites with a similar reporting process.

- **Model Program:** The NPS model for CLRs is well-defined, outlining the various aspects to be covered in such a reporting process. These include historic research, period plans, inventorying existing conditions, reading the landscape, historic plant inventories, and site analysis.
- **Potential Partners:** National Park Service, American Institution for Conservation, Arkansas Archeological Survey, Civil War Trust, and local historians with experience in this type of work, such as Parker Conservation, Inc., and Alan Thompson of Prairie Grove Battlefield State Park.

**Online Resources:**

- NPS: Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes: <http://www.nps.gov/tps/how-to-preserve/briefs/36-cultural-landscapes.htm>
- Guide to Cultural Landscape Reports: Contents, Process, and Techniques: [http://www.nps.gov/cultural\\_landscapes/Documents/Guide\\_to\\_Cultural\\_Landscapes.pdf](http://www.nps.gov/cultural_landscapes/Documents/Guide_to_Cultural_Landscapes.pdf)



**LINKING FARMERS WITH LAND**

Farmer and rancher linking programs connect new farmers with retiring landowners. When the new and retiring generation match up, they can work

out mutually beneficial arrangements to transfer ownership while maintaining a small farm’s legacy and promoting good stewardship. Arkansas once had such a program under the Agricultural Division of the Arkansas Development Finance Authority (ADFA), called Farm Link of Arkansas (no existing program information was available online at the time of this writing). Northwest Arkansas could benefit from such a networking program that connects retiring and new farmers.

- **Model Program:** The Virginia Farm Link program is designed to help two important segments of the commonwealth’s farm community: 1) Farmers and landowners who are facing retirement and want to see their businesses continue and their land stay in production; and 2) Beginning and expanding farmers who are in search of business arrangements through which they can acquire land, equipment, experience and access to the knowledge of seasoned producers. Since 2010, approximately 30 farm transition events have been sponsored by this program.
- **Potential Partners:** University of Arkansas Cooperative Extension Service’s Center for Agriculture and Rural Sustainability, Arkansas Farm Bureau, Arkansas Agricultural Department, American Farmland Trust, and the Agricultural Division of the Arkansas Development Finance Authority (who formally hosted this program in Arkansas).

**Online Resources:**

- Center for Agriculture and Rural Sustainability: <https://www.uark.edu/ua/cars/>
- Virginia Farm Link: <http://vdacs.state.va.us/preservation/program.shtml>
- Center for Rural Affairs: <http://www.cfra.org/beginning-farmer-rancher>



# Center for Agricultural and Rural Sustainability

## SUSTAINABLE AGRICULTURE

Sustainable agriculture is the production of food, fiber, or other plant or animal products using farming techniques that protect the environment, public health, human communities, and animal welfare. Northwest Arkansas has many organizations and businesses already practicing various elements of sustainable agriculture, and there are many examples across the U.S. of regional and statewide groups that organize such efforts into networks for shared resources, advocacy, and education. One of the oldest and largest such groups that could serve as a model for Northwest Arkansas is the Carolina Farm Stewardship Association (CFSA).

- **Model Program:** CFSA is a farmer-driven, membership-based 501(c)(3) non-profit organization that helps people in the Carolinas grow and eat local, organic foods by advocating for fair farm and food policies, building the systems family farms need to thrive, and educating communities about local, organic agriculture. Their key program areas include education, advocacy, food systems, and farm services. Founded in 1979, they are the oldest and largest sustainable agriculture organization in the Southeast.
- **Potential Partners:** University of Arkansas Cooperative Extension Service's Center for Agriculture and Rural Sustainability, Arkansas Farm Bureau, Arkansas Farmers Market

Association (AFMA), and organizations such as Ozark Slow Food, Ozark Natural Foods and Arkansas Food & Farm.

### Online Resources:

- The Carolina Farm Stewardship Association (CFSA): <https://www.carolinafarmstewards.org>
- Center for Agriculture and Rural Sustainability: <https://www.uark.edu/ua/cars/>

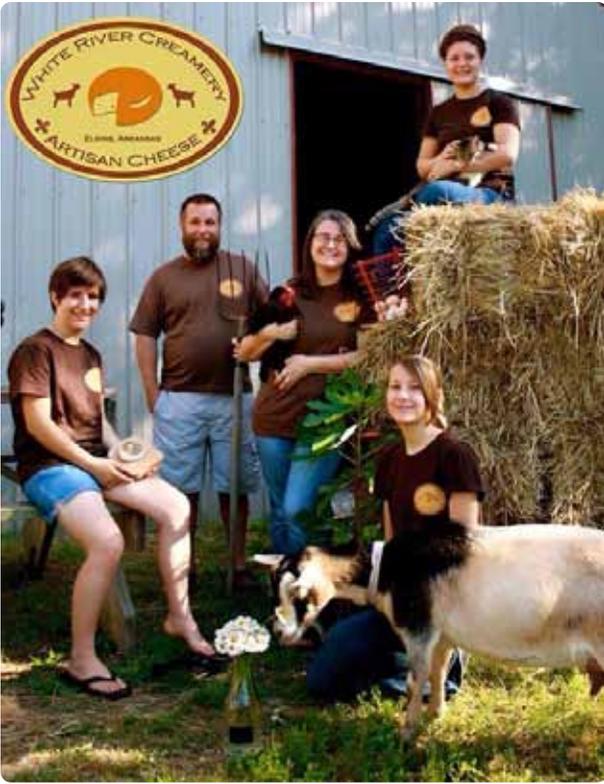


## AGRITOURISM

Agritourism is a unique form of tourism that is considered a growth industry in many parts of the world. It involves any agriculturally based business or program that brings visitors to a farm or ranch, and can include a wide variety of activities, such as buying produce direct from a farm stand, navigating a corn maze, picking fruit, feeding animals, special dinners featuring local food and local chefs, vineyard or brewery tours, or staying at a B&B on a farm.

Agritourism is already in practice in Northwest Arkansas. According to the U.S. Department of Agriculture census, from 2007 to 2012 the number of Arkansas farms participating in agritourism programs increased from 268 to 389.

According to the University of Arkansas Cooperative Extension Service, benefits to farmers include, "the potential to increase income, identify new customers, lose the middle



*Agritourism example and images from White River Creamery, in Elkins AR.*





man, build closer linkages to the nonagricultural business community and raise awareness of and appreciation for agricultural production.”

The potential benefits to communities include “increased tax base, new employment opportunities, educational opportunities for the public, preservation of rural way of life and economic development that can’t be outsourced to other countries.” Northwest Arkansas would benefit by creating an official program of agritourism, similar to other successful programs like the South Carolina Agritourism Passport Program.

- **Model Program:** Oklahoma Agritourism: This joint program of the Oklahoma Department of Agriculture, Food and Forestry and the Oklahoma Tourism and Recreation Department is dedicated to helping entrepreneurial farmers and ranchers develop their Agritourism attractions and implement extensive marketing and public relations campaigns to help promote and develop their businesses into destinations. The services they offer are free. This is the state’s official Agritourism program.
- **Local Example:** Ozark Natural Foods’ annual ‘Tour de Farms’: During the tour, people in Northwest Arkansas visit local farms, meet the farmers, view different demonstrations at each site, taste products grown on the farms, and tour the farms. A local business example is White River Creamery, in Elkins, AR.
- **Potential Partners:** University of Arkansas Cooperative Extension Service, Arkansas Farm Bureau’s Best Pick Farm Markets, Northwest Arkansas Tourism Association, Arkansas Farmers Market Association (AFMA), Arkansas Department of Agriculture’s Arkansas

Agritourism Initiative, and businesses such as Ozark Natural Foods and Arkansas Food & Farm.

**Online Resources:**

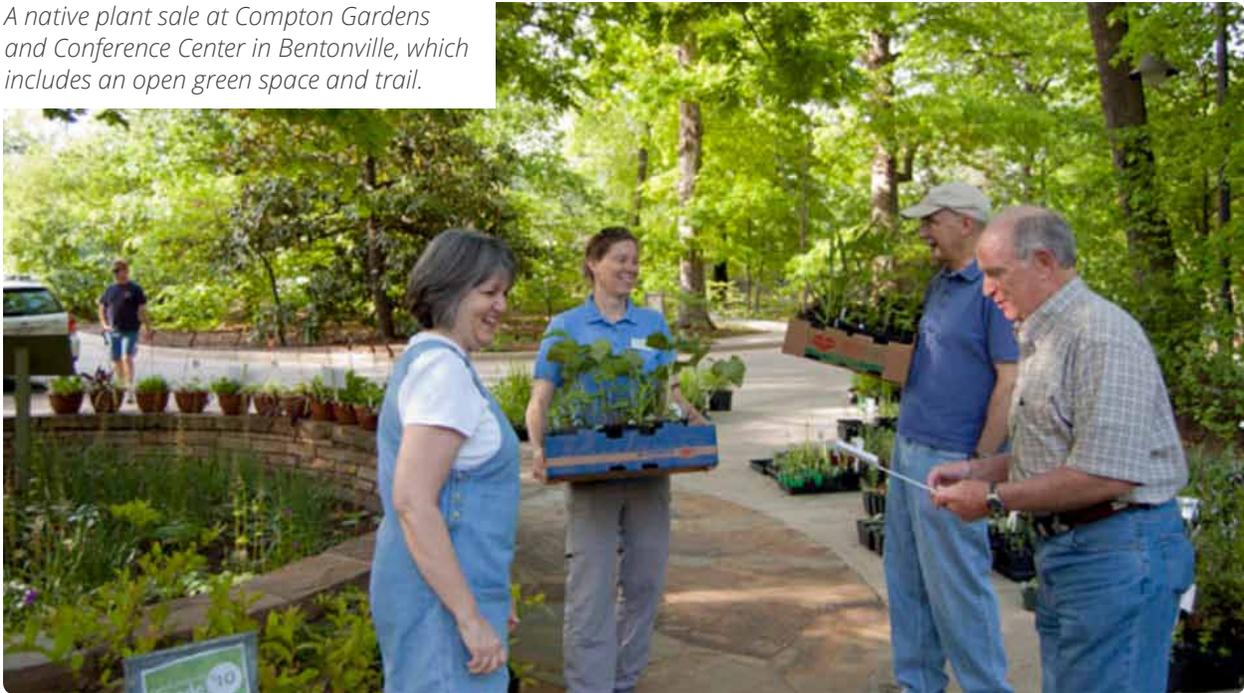
- Agritourism in Arkansas: <http://www.uaex.edu/farm-ranch/special-programs/agritourism.aspx>
- Oklahoma Agritourism: <http://oklahomaagritourism.com/>
- Ozark Natural Foods’ Tour de Farms: <http://onlyinark.com/places-and-travel/tour-de-farms/>

**NATIVE PLANTS PROGRAM FOR EXISTING OPEN SPACES**

A native plants program could be used to encourage planting native species and discourage use of invasive species in all greenspaces. For example, Pea Ridge National Military Park has started a major vegetation management plan that will improve the natural environment with more warm season native grasses that will benefit grassland birds.

- **Model Program:** Rather than citing one model program, below are several ideas submitted by local advocates of environmental stewardship through native plants:
  - Improve existing protected open spaces through removal of invasive species and introduction of native species.
  - Better support wildlife by reducing mowing and introducing appropriate native plant materials along county, city, and state streets and highways.
  - Trails like the Razorback Regional Greenway should use only native plants.

A native plant sale at Compton Gardens and Conference Center in Bentonville, which includes an open green space and trail.



- Increase educational outreach for home owners who want to make residential lots part of a wildlife corridor.
- Consider commercial business restrictions to use of only native species for new plantings. At a minimum, new builders should be provided with a list of native species and native plant suppliers.
- Consider establishing an open space and greenhouse dedicated to teaching environmental education, gardening/ community gardens, for use of organizations such as the master gardeners/naturalists.
- **Potential Partners:** Northwest Arkansas Master Naturalists, master gardeners, garden clubs, Northwest Arkansas Audubon Society, and the Ozark Chapter Arkansas Native Plant Society (OCANPS).

**Online Resources:**

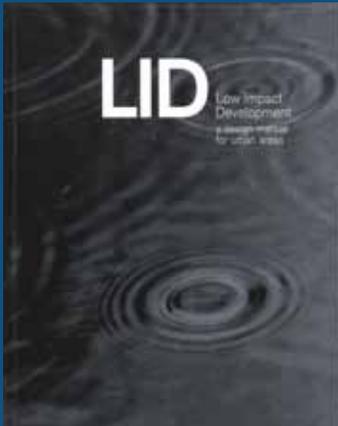
- Native Plants for Birds in Northwest Arkansas: <http://www.nwarkaudubon.org/native-plants-for-birds-in-northwest-arkansas.html>
- Arkansas Native Plant Society: <http://anps.org/>
- Benton County Master Gardeners: <http://home.bentoncountygardening.org/>
- Botanical Garden of the Ozarks: <http://bgozarks.org/>

**WATER QUALITY AND LAND STEWARDSHIP BEST PRACTICE GUIDEBOOKS**

The following pages showcase local and regional guidebooks that feature hundreds of relevant best practices for water quality and land stewardship. These are free and available in Northwest Arkansas through multiple organizations, such as the Illinois River Watershed Partnership (IRWP) and the Beaver Watershed Alliance (BWA).



# In-Depth Local Resources for Water Quality and Land Stewardship Best Practices

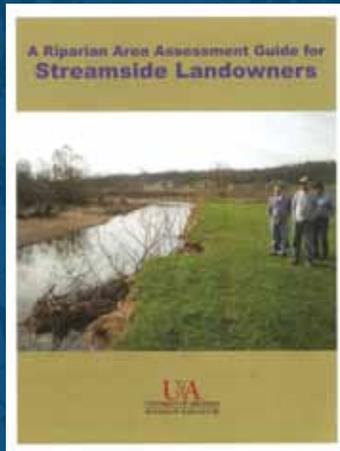


## ***LID Low Impact Development: A Design Manual for Urban Areas***

Published by the University of Arkansas, **this 212-page manual focuses on designing landscapes for the management of urban stormwater runoff.** Low impact development (LID) is an ecologically-based stormwater management approach favoring soft engineering (using plants to process stormwater on-site) over hard engineering, which moves polluted stormwater to a new location. The manual is for general audiences and focuses on a holistic approach to stormwater management techniques.

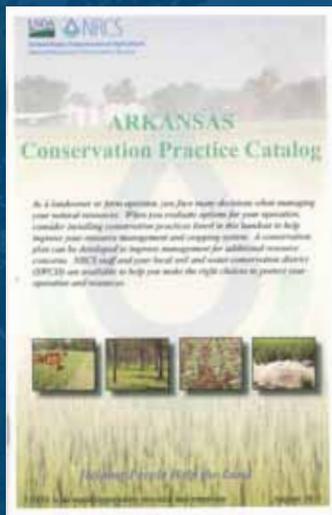


*Image from the LID Manual, illustrating some of the topics covered in its section on open space.*



## ***A Riparian Area Assessment Guide for Streamside Landowners***

This guide is designed to help landowners with streams assess the health of their streams and riparian areas. The booklet includes a worksheet with yes/no questions to guide in the investigation of the stream's health, a chart to assist in determining next steps once a potential concern is identified, and photographs to aid visual assessments.



## ***Arkansas Conservation Practice Catalog: Helping People Help the Land***

This booklet acts as a guide for landowners and farmers to the conservation practices recommended by the Natural Resources Conservation Service (NRCS) of the US Department of Agriculture (USDA) to improve resource management systems. **One hundred, twenty-nine practices are briefly described, along with the purpose of each.**



## ***Handbook of Best Management Practices for the Upper Illinois River Watershed and Other Regional Watersheds***

This handbook outlines potential management actions that can be taken by individuals or groups at households, businesses, institutions, municipalities, industrial facilities, farms, and construction sites to maintain or improve the water quality of the Illinois River. Some management actions can be undertaken by any watershed stakeholder at any time, while others need to be carefully planned.

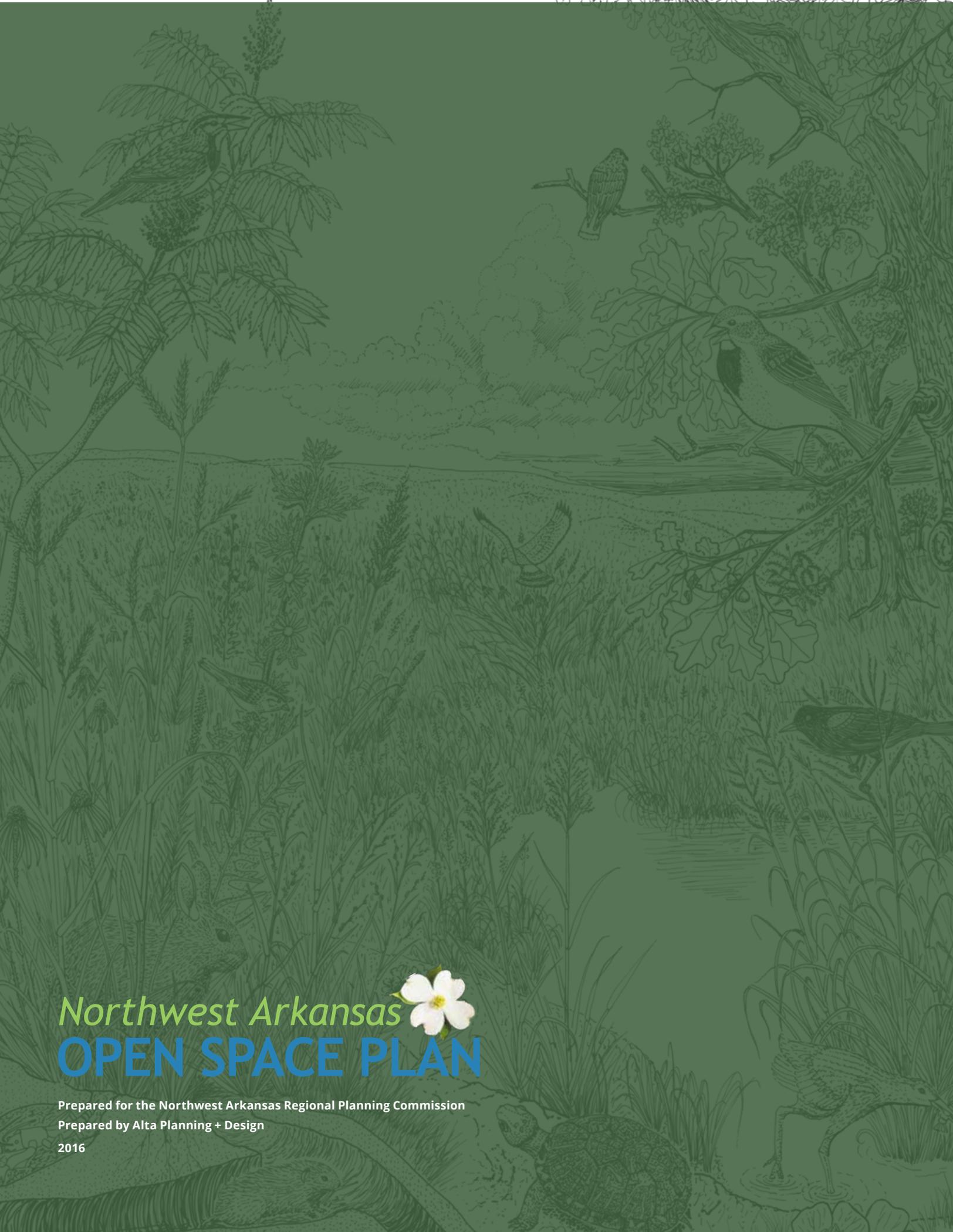


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Background image, back cover: Arkansas Natural Heritage Commission



*Northwest Arkansas*  
**OPEN SPACE PLAN**

Prepared for the Northwest Arkansas Regional Planning Commission  
Prepared by Alta Planning + Design

2016