



ARKANSAS DEPARTMENT OF
AGRICULTURE

**BUFFALO RIVER CONSERVATION COMMITTEE
2023 ANNUAL REPORT**



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Respectfully submitted to:

The Honorable Sarah Huckabee Sanders, Governor
Co-Chairs of the Arkansas Legislative Council

Prepared by:

The Arkansas Department of Agriculture with support from Buffalo River Conservation Committee members.

BUFFALO RIVER CONSERVATION COMMITTEE (BRCC) 2022 ANNUAL REPORT

BACKGROUND

On September 30, 2016, Governor Hutchinson created the Beautiful Buffalo River Action Committee (BBRAC) to develop an Arkansas-led approach to identify and to address potential concerns in the Buffalo River Watershed. In its creation, Governor Hutchinson directed the BBRAC to initiate the development of a non-regulatory, Buffalo River Watershed Management Plan (WMP).

Beginning in December 2016, four stakeholder meetings were facilitated as part of the development of the voluntary, non-regulatory, WMP for the Buffalo River Watershed. Stakeholders in attendance included farmers, landowners, political representatives, state and federal agencies, and interest groups representing agriculture, conservation, and recreation.

The Buffalo River Watershed Management Plan is a voluntary, non-regulatory, nonpoint source watershed management plan consisting of nine elements. The WMP identified six sub-watersheds as priority areas: Mill Creek (upper), Calf Creek, Bear Creek, Brush Creek, Tomahawk Creek, and Big Creek (lower). It does not include regulated facilities or encompass any management practices for regulated facilities. The Buffalo River Watershed Management Plan was fully accepted by the United States Environmental Protection Agency (EPA) on June 5, 2018, and can be found here <http://adeq.state.ar.us/water/planning/integrated/303d/pdfs/2018/2018-05-22-final-buffalo-river-wmp.pdf>

On September 23, 2019, Governor Hutchinson signed Executive Order 19-14 establishing the Buffalo River Conservation Committee (BRCC) which replaced the Beautiful Buffalo River Action Committee (BBRAC).

The BRCC membership consisted of the Secretary of the Department of Agriculture, Secretary of the Department of Energy and Environment, Secretary of the Department of Health, and Secretary of the Department of Parks, Heritage, and Tourism.

Executive Order 19-14 required the members of the BRCC to work in cooperation with one another to identify opportunities to leverage their Departments' unique expertise, relationships, focus areas, and funding mechanisms in support of the vitality of the watershed.

The BRCC was also required to establish subcommittees that include key stakeholders representing local landowners, conservation organizations, environmental and technical experts, representatives of the tourism industry, county and municipal officials, and federal partners. The subcommittees were directed to identify opportunities for training, relationship building, and specific projects, all of which will be in service to preserving and enhancing water quality within the Buffalo River Watershed.

On November 15, 2019, following approval by the Arkansas Legislative Council, \$1 million from the Governor's discretionary fund was transferred to an Arkansas Department of Agriculture fund account to support grants and projects within the Buffalo River Watershed. An additional \$1 million contribution was pledged by private donors in support of the Buffalo River Watershed Enhancement Project, a regional project funded in part through the U. S. Department of Agriculture's Regional Conservation Partnership Program. The project is discussed further on page 8.

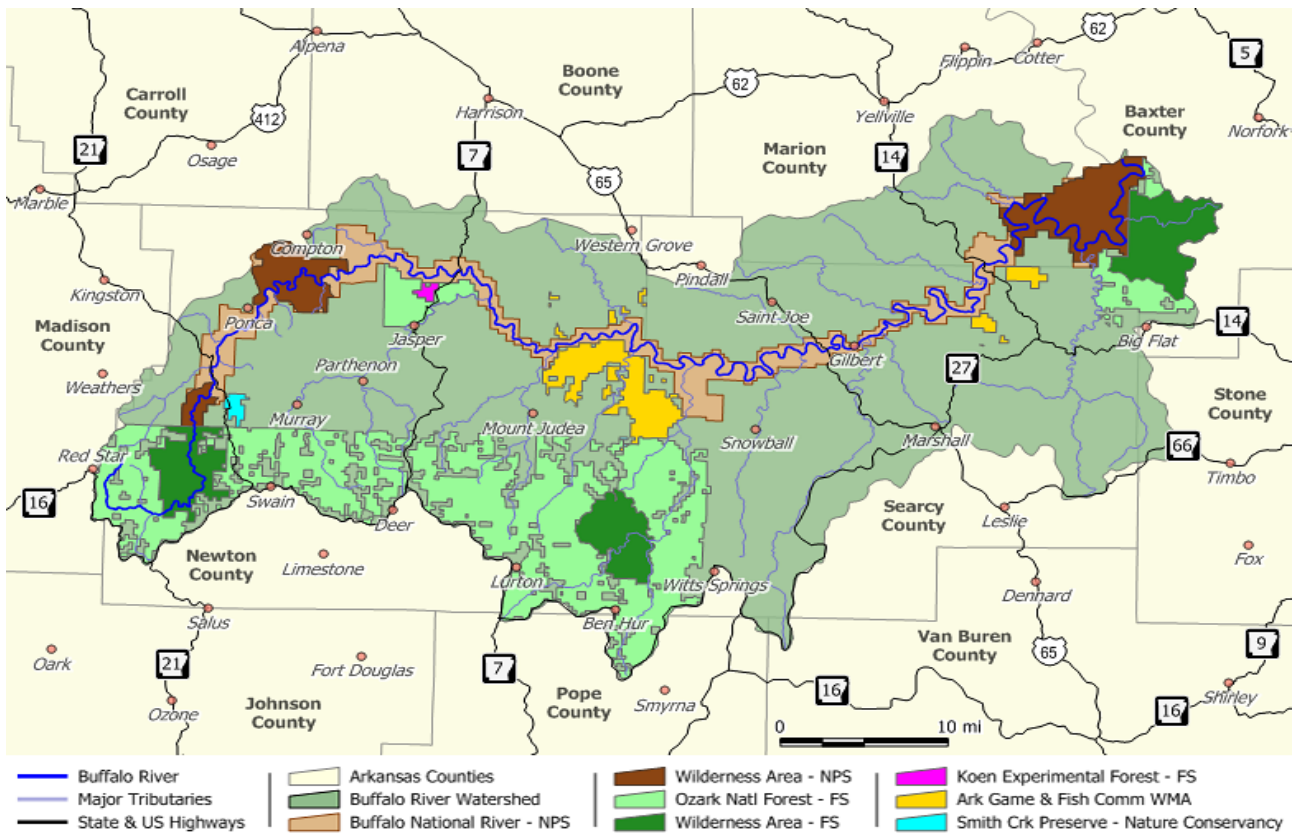
In 2021, the Arkansas General Assembly took action through Act 785 of the 2021 regular session to codify the Buffalo River Conservation Committee at Arkansas Code 15-23-1001 et seq. The legislation became effective July 28, 2021.

Act 785 retained the Secretary of the Department of Energy and Environment, the Secretary of the Department of Agriculture, the Secretary of the Department of Parks, Heritage, and Tourism, and the Secretary of the Department of Health as members of the BRCC and added two new members, the County Judge of Newton County, and the County Judge of Searcy County. The legislation incorporated the responsibilities listed in Executive Order 19-14.

BUFFALO RIVER WATERSHED OVERVIEW

The Buffalo River Watershed lies within the White River Basin in Northwest Arkansas and encompasses 1,372 miles and 878,080 acres. The watershed is home to approximately 18,000 Arkansans and includes parts of Madison, Newton, Boone, Pope, Marion, Van Buren, Searcy, Baxter, and Stone Counties. The majority of the watershed lies in Newton and Searcy Counties with the smallest portion lying in Van Buren County.

Figure 1. Major federal, state, and private protected forests within the Buffalo River watershed.



The Buffalo River is 153 miles (246 km) long. The lower 135 miles (217 km) flow within the boundaries of an area managed by the National Park Service, where the stream is designated the Buffalo National River. The river flows through Newton, Searcy, Marion, and Baxter counties from west to east. The river originates in the highest part of the Boston Mountains in the Ozark Mountain range, flows out onto the Springfield Plateau near the historic community of Erbie, and finally crosses a portion of Salem Plateau just before joining the White River. The upper section of the river in the Ozark National Forest is managed by the U.S. Forest Service and is designated as a National Scenic River and a National Wild River; that section is not part of the area managed as a park by the National Park Service.

The Buffalo River was designated as the nation's first National River by an Act of Congress on March 1, 1972, through Public Law 92-237. The designation ended the recurring plans of the U.S. Army Corps of Engineers to construct one or more dams on the river. The National River designation protects natural rivers from industrial uses, impoundments, and other obstructions that may change the natural character of the river or disrupt the natural habitat for the flora and fauna that live in or near the river. Three segments totaling 11,978 acres (48.47 km²) were designated as Buffalo National River Wilderness in 1975.

Approximately 60% of the land within the Buffalo River Watershed is privately owned. Federal ownership accounts for approximately 37 percent, and three percent of the watershed is owned by the Arkansas Game and Fish Commission.

The Buffalo River Watershed includes 2,518 miles of roads, with 2,007 miles or 80 percent being unpaved. The majority of unpaved roads are found in two counties; Newton County has 885 miles of unpaved roads and Searcy County has 834 miles. There are 668 points within the watershed where an unpaved road crosses a stream.

Approximately 1,245 miles or 62 percent of unpaved roads in the watershed are under county jurisdiction. Approximately 630 miles or 31 percent of unpaved roads are privately owned. Federal ownership accounts for 120 miles or six percent of the unpaved roads.

Twenty-four public water systems operate within the Buffalo River Watershed; however, none use the Buffalo River as a water source. The Arkansas Department of Energy and Environment's Division of Environmental Quality has issued permits for four wastewater systems within the watershed: the City of Jasper, the City of Marshall, the Buffalo River National Park, and the Marble Falls Suburban Improvement District.

Agriculture and tourism are significant industries within the nine counties that contain a portion of the Buffalo River Watershed. Agriculture is Arkansas's largest industry, followed by the tourism industry. Agriculture contributes more than \$20.9 billion to the state's economy and provides one of every seven jobs in the state. Tourism has a \$9.2 billion impact statewide, including \$752 million in state and local taxes.

There are 6,832 family farms on 1,606,526 acres in the region, including 235,838 harvested crop land acres. Poultry, cattle, and hay are the top three agricultural commodities, with Searcy and Newton counties having the highest number of cattle and poultry. A variety of other agricultural commodities, including pork, vegetables, melons, potatoes, sweet potatoes, fruits, tree nuts, and berries, are also produced in the area. Based on the most recent USDA data, the market value of the area's farm products is \$815.5 million. Agritourism is expanding within the watershed, providing additional jobs and income for farms and agriculture-related venues.

Approximately 79 percent of the watershed is forested, and 14 percent is grassland. The forest type group is classified as predominately Oak-Hickory with some Oak-Pine. The collective land cover of contains 18.3 million

tons of standing pine and more than 126 million tons of standing hardwood. The forest industry provides more than 1,000 jobs in the region.

The Buffalo National River serves as a substantial tourist attraction for Arkansas. The Buffalo National River draws an estimated 1.2 million visitors annually, making it one of Arkansas’s most popular amenities. These visitors spend an estimated \$55 million in the region, providing income for business operators, creating jobs, and generating local taxes.

More economic and land use data to include information about unpaved roads within the Buffalo River Watershed can be found at agriculture.arkansas.gov/buffalo-river-conservation-committee/.

FUNDING and ACHIEVEMENTS

In November 2019, the Arkansas Legislative Council approved providing \$1 million from the Governor’s discretionary fund for the BRCC. The BRCC and subcommittee members selected four topic areas as the focus of the BRCC’s actions and funding: unpaved roads; cost-share programs for agriculture; water and wastewater system infrastructure; and tourism and tourism impacts.

The BRCC has approved funding for the following projects:

Cane Branch Unpaved Road, Searcy County	\$124,807
Cave Mountain Unpaved Road, Newton County	\$376,496
City of Jasper Wastewater Treatment Facility Improvements	\$250,000
Town of Gilbert Dark-Sky Streetlight Conversion	\$11,600
U.S. Geological Survey Water Study	\$89,960.50
U.S. Department of Agriculture Feral Hog Eradication Efforts	\$74,960.50
Greater Searcy County Chamber of Commerce Tree Planting Project	\$2,500
H2Ozarks’ Mill Creek Subwatershed project	<u>\$69,676</u>
	\$1,000,000

A summary and status report for each funded project is provided below:

- Cane Branch Road, Searcy County: \$124,807 (Completed October 2021)

The BRCC approved \$124,807 towards the total estimated cost of \$231,935 for the Cane Branch Road project, an unpaved road project in Searcy County that includes the installation of cross pipes, ditch reshaping, water diversion, and grade breaks over 7/10 of a mile to reduce road erosion and the resulting transport of sediment and stone. Ditch runoff from the project site directly impacts the Buffalo River.

The Arkansas Department of Agriculture’s Natural Resources Division pledged \$55,132 for the project from the federal Nonpoint Source Management Program.

In November 2020, \$124,807 of BRCC funding was disbursed to Searcy County to begin work on the Cane Branch Road project. A construction bid was awarded in April 2021 and the project was completed in October 2021 for a total cost of \$249,615. The final site inspection occurred on October 21, 2021, and all remaining funding was disbursed. The Natural Resources Division contributed \$69,676 from Unpaved Road Program funds towards the final project cost, bringing the total contribution from the Natural Resources Division to \$124,808.

- Cave Mountain Road (Hawksbill Crag), Newton County: \$376,496 (Ongoing)

The BRCC approved \$342,269 towards the total estimated cost of \$397,400 for the Cave Mountain Road project, a 2-mile unpaved road project on one of the most heavily traveled roads in the Buffalo River Watershed due to the popularity of Hawksbill Crag as a tourist destination. The project includes the removal of trees, installation of cross pipes, enhancement of the road base, and installation of guard rails.

The Arkansas Department of Agriculture's Natural Resources Division pledged \$55,131 for the project from the federal Nonpoint Source Management Program.

Tree removal and disposal began on the Cave Mountain Road project in the fall of 2020 after completion of an environmental assessment that was required by the National Environmental Policy Act because the road crosses National Park Service property. After completion of the environmental assessment, a Finding of No Significant Impact (FONSI) was announced by the National Park Service on August 19, 2022, which allowed construction to proceed but with construction stipulations to avoid disturbance of endangered species. Funding of \$215,814 was disbursed in November 2022.

- City of Jasper Wastewater Treatment Facility Improvements: \$250,000 (Ongoing)

The City of Jasper's existing wastewater treatment facility discharges into the Little Buffalo River approximately six miles upstream from its confluence with the Buffalo River. Necessary improvements to the wastewater treatment facility include a new sludge processing facility that would house a sludge press and associated chemical feed equipment, site pump station improvements, new flow equalization basin, and general site plumbing rehabilitation.

The BRCC approved \$250,000 to work in conjunction with a \$440,000 loan and a \$1,351,750 loan with principal forgiveness from the Arkansas Clean Water State Revolving Loan Fund approved for the City of Jasper by the Arkansas Department of Agriculture's Natural Resources Commission in 2020. The loans were approved in June 2021 and the contract for Phase I of the project was awarded. Construction began in September 2021 on the pump station.

Numerous issues have been encountered over the course of the Jasper project that have delayed construction and increased project costs. Issues included weather challenges and identification of poor conditions that hinder construction. The installation of reinforced concrete piers was completed in August 2023 and additional concrete work was conducted in September. All BRCC funding for the project has been disbursed.

- Town of Gilbert Dark-Sky Streetlight Conversion Project: \$11,600 (Completed October 2022)

The funding approved by the BRCC was used to purchase and install 16 modern zero up-light LED fixtures to replace existing outdated lights. The new lights shine the minimum of biologically impactful

blue light and assist the town with being recognized as a Dark-Sky Town. The project was completed on October 14, 2022, and all funding was expended.

- U.S. Geological Survey Filamentous Algae Study: \$89,960.50 (Ongoing)

The BRCC provided \$65,000 to the U.S. Geological Survey (USGS) in 2021 to complete the fourth year of a five-year study to determine why filamentous algae is increasing in the Buffalo River. Sampling for filamentous algae was conducted from 2021 to July 2022.

In 2022, the BRCC approved \$24,960.50 in additional funding to enable the USGS to continue monitoring nutrients and filamentous algae at two dozen sites along 70 miles of the Buffalo River for six additional months during a funding gap. BRCC funds were used for three additional rounds of field data collection and laboratory analysis in July, September, and December of 2022. The USGS received additional funding from the USGS National Resource Preservation Program to continue data collection through late 2023.

- U.S. Department of Agriculture Feral Hog Eradication Project: \$74,960.50 (Completed September 2022)

The BRCC approved \$24,960.50 in 2022 as additional funding for feral hog eradication work by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service Wildlife Services (Wildlife Services) in the Buffalo River Watershed. The funding will enable Wildlife Services to continue the feral hog eradication efforts that were funded with \$50,000 from the BRCC in 2021.

Funds were dispersed to Wildlife Services in June 2022. The funds have been used to purchase a thermal camera, additional traps, and additional trap parts. Between October 1, 2019, and November 1, 2022, Wildlife Services personnel worked with 70 private landowners within the Buffalo River Watershed and removed 1,201 feral hogs.

- Greater Searcy County Chamber of Commerce Tree Planting Project: \$2,500 (Completed December 2021)

In 2021, the BRCC provided \$2,500 to the Greater Searcy County Chamber of Commerce to purchase trees to be given to Searcy County residents and be planted in public areas within the county. The Nature Conservancy of Arkansas pledged to match the funding, bringing the total to \$5,000 for the project.

Four large sugar maple trees were planted at the Berry Shed property owned by Searcy County. Thirty-three additional trees were planted at Raccoon Springs City Park, including 23 trees purchased with funding provided by the BRCC and 10 trees donated by the Arkansas Department of Agriculture's Urban Forestry program. The project was completed in December 2021.

- Mill Creek Subwatershed Partnership Building, Landowner Engagement, and Water Quality Monitoring

The BRCC approved \$69,676 on October 31, 2023 for the Mill Creek subwatershed project submitted by H2Ozarks. The goals of the project include improving water quality in the Mill Creek, a headwater tributary impacting water quality in the Buffalo River. The project also includes landowner engagement and identifying program partners and collaborators. Funds were disbursed in November 2023.

OTHER PROJECTS AND ACTIVITIES IN THE BUFFALO RIVER WATERSHED

In addition to the projects funded by the BRCC, many other important projects and activities within the BRCC's four focus areas were conducted by subcommittee members, partners, and stakeholders within the Buffalo River Watershed in 2023. An update on a few of these projects and activities is provided below.

Unpaved Roads

- Richland Road Unpaved Road Project in Searcy County

In 2020, Searcy County was selected to receive funding of \$47,408 through the traditional Arkansas Unpaved Roads Program for improvements to a portion of Richland Road. Searcy County committed to providing \$53,380 in matching funds for the project. The project, including the installation of ditch outlets, cross pipes, and slope improvement, was completed in October 2022.

Searcy County submitted an Arkansas Unpaved Road Program application for 2023 funding to complete Phase II of the Richland Road project. The total project cost is estimated at \$108,236, with \$51,056 being requested as grant funding. The project will span 1.5 miles and install seven culverts, improve ditches and ditch outlets, road base improvements, and improve storm water management to reduce sediment inputs to the Buffalo River.

- Unpaved Roads along Cave Creek in Newton County

Two unpaved road projects on Cave Creek in Newton County have been funded by the Arkansas Department of Agriculture's Natural Resources Division through a Nonpoint Source Pollution grant awarded to The Nature Conservancy for unpaved road improvements throughout the state.

The first project is for improvements to County Road 252 in the Gene Rush Wildlife Management Area managed by the Arkansas Game and Fish Commission. The Nature Conservancy sub-awarded \$100,000 to Newton County for construction of a 100 ft. span that will replace undersized culverts. Newton County will provide over \$150,000 of cash and in-kind costs. The Arkansas Game and Fish Commission provided \$30,000 for materials.

The second project is to improve access and road conditions at County Road 5070 in Newton County. The project will replace undersized culverts with a 28 ft. by 100 ft. span and improve unpaved approaches. Newton County will provide \$176,847 to match \$140,346 in federal funding provided by the Natural Resources Division. An initial disbursement was made in November 2022.

The Arkansas Game and Fish Commission, The Nature Conservancy, Newton County, and the Natural Resources Division are also exploring the feasibility of improving a crossing on County Road 264 near Bass.

Cost-Share Programs for Agriculture

Additional projects implemented in support of the implementation of the Buffalo River Watershed Management Plan include:

- Arkansas Nonpoint Source Pollution Grant Sub-Award 19-500 Buffalo River Water Quality Monitoring

The primary objective is to measure the following water quality parameters (Total Suspended Solids, Turbidity, Dissolved Oxygen, pH, Nitrate, Nitrite, Orthophosphate, Total Nitrogen, Total Phosphorus) in the Calf Creek (110100050401), Brush Creek (110100050405), Tomahawk Creek (110100050407), and Bears Outlet Creek (110100050404) sub-watersheds as these are part of the Buffalo National River and are recognized as an Extraordinary Resource Waterway and were identified in the Buffalo River Watershed Management Plan. Arkansas State University was awarded \$386,322 of federal funding and provided \$301, 898 in match for a project total of \$688,220. Arkansas State University completed this project in June of 2023.

- Arkansas Nonpoint Source Pollution Grant Sub-Award 20-400 Crooked Creek Conservation District: Buffalo River Watershed Project

The primary objective is to maintain or restore all designated uses of the Buffalo River watershed by: 1) Implement a program that will bring voluntary participation of landowners and land users in the application of the necessary BMP's. 2) Implementation of 200 conservation plans on 61,000 acres of pastureland and 7.25 miles of stream bank protection in the Buffalo River watershed. Conservation planning and cost sharing of applied BMP's will result in the establishment of vegetative cover on the pastureland and the maintenance and protection of riparian areas by fencing cattle from streams in the watershed. 3) Install Rain Gardens to demonstrate how runoff can be reduced by using different methods and materials such as grasses, native plants, perennial flowers, etc. Total project cost is \$459,500, of which \$256,000 is federal funds and is being matched by \$203,500 of District and landowner contributions.

- Arkansas Nonpoint Source Pollution Grant Sub-Award 21-700 Buffalo Conservation District: Buffalo River Tributary Project

The primary objective of this project is to implement a program that will encourage voluntary participation of landowners and operators in applying BMPs within sub watersheds (11010005) that contain or feed the Buffalo River. We would like to see implementation of BMPs on 70,731 acres of pastureland within these waterways resulting in 1) a reduction of nutrients, sediment and bacteria entering waterways by establishing alternative water sources and filter strips; 2) nutrient management and intensive grazing systems in pastures; 3) protection of riparian areas through livestock exclusion fencing. The Natural Resources Division awarded \$62,857 of federal funds to the District's \$2,876. Additionally, \$75,000 of federal funds were awarded to match \$112,500 of landowner contributions for conservation practice cost share. Total project cost is \$253,233.

- Buffalo River Watershed Enhancement Project

This project was approved in April 2020 for \$2.7 million from the U.S. Department of Agriculture Natural Resources Conservation Service's (USDA NRCS) Regional Conservation Partnership Program (RCPP). Local partners, including The Nature Conservancy, Arkansas Department of Agriculture, Arkansas Game and Fish Commission, University of Arkansas System Division of Agriculture, Buffalo River Foundation, and the Buffalo River Conservation District, provided additional funding of approximately \$2.76 million. The

funding is to be used for projects that aim to improve water quality by reducing sediment and nutrient loads through improving pasture management, reducing erosion from unpaved roads, and restoring riparian corridors. All participation by landowners is completely voluntary.

In 2020, the Buffalo River Watershed was one of five watersheds included in a joint stewardship project between the U.S. Department of Agriculture's Forest Service and Natural Resources Conservation Service. Objectives of the project include protection of water quality and supply for public drinking water, tourism, fisheries, and rural industrial development; improvement of forest health and resiliency; reduction of wildfire threats; improvement of wildlife habitat; and environmental education. Funding is provided by federal, state, and private sector sponsors to help private landowners install conservation practices. All participation by landowners is voluntary.

Activities conducted through the Buffalo River Watershed Enhancement Project in 2023 include:

- 22 projects were contracted and will impact 2,000 acres in the watershed.
 - Projects include stream crossings, water management, tree and shrub establishment, stream bank protection, firebreaks, and prescribed fire.
 - These contracts with private landowners have been approved by USDA NRCS for a total of \$359,851.
 - The contracts are awaiting completion of archaeological inspections before implementation.
 - Fiscal Year 2024 signup dates have not been set.
 - Totals to date for the project include 47 contracts for a total of \$1,090,511. Eleven of the contracts are with Historically Underserved participate for a total of \$285,397.
- Joint Chiefs' Landscape Restoration Partnership Program
- Through the Joint Chiefs' Landscape Restoration Partnership Program (Joint Chiefs'), the USDA NRCS and the Forest Service provided more than \$2.3 million for a project in Arkansas to improve water quality. A portion of this funding is to be used within the Buffalo River Watershed to work with agricultural producers, forest landowners, and National Forest System lands to improve forest health using available Farm Bill conservation programs and others. All participation by landowners is completely voluntary.

The Joint Chiefs' project concluded on September 30, 2022.

- Environmental Quality Incentives Program

The Environmental Quality Incentive Program (EQIP) is a conservation program administered by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) to help farmers, ranchers, and forest landowners integrate conservation into working lands. The Arkansas Department of Agriculture's Forestry Division has a technical services agreement with the NRCS to develop forest management plans and forest practice plans for landowners.

Accomplishments within the Buffalo River Watershed through EQIP in 2023 include:

- 3,160 Acres of Prescribed Burning Implemented
- 80,568 Feet of Firebreak Implemented
- 94 Acres of Forest Stand Improvement Implemented

- o 74 Acres of Tree/Shrub Establishment
- o 531 Acres of Prescribed Grazing Implemented
- o 19,952 Feet of Fence Implemented
- o 820 Feet of Streambank Protection Implemented

- U.S. Forest Service Forest Stewardship Program

The Forest Stewardship Program of the U.S. Forest Service works in partnership with state forestry agencies, cooperative extension, and conservation districts to connect private landowners with information and tools they need to manage their forests and woodlands, primarily through the development of forest stewardship plans.

Accomplishments within the Buffalo River Watershed through the Forest Stewardship Program in 2023 include:

- o One Forest Stewardship plan was completed on 23 acres.
- o One new certified Forest Steward owning 75 acres.
- o Provided technical assistance to 13 landowners for 1,507 acres.

- U.S. Forest Service Community Fire Protection Program

The Community Fire Protection Program (CFPP) provides community assistance for fire protection, especially in the wildland-urban interface.

Accomplishments within the Buffalo River Watershed through the CFPP in 2023 include:

- o Eight prescribed burns were completed for a total of 705 acres.

- Volunteer Fire Assistance Grant Program

The Volunteer Fire Assistance Grant, funded through the U.S. Forest Service and administered in Arkansas by the Arkansas Department of Agriculture’s Forestry Division, is used to purchase fire suppression kits for volunteer fire departments. The kits contain equipment and gear necessary for the safe suppression of wildfires.

In 2023, wildfire suppression kits were awarded to the following volunteer fire departments within the Buffalo National River watershed:

- o Pindall Fire Department, Searcy County
- o Gilbert Fire Department, Searcy County
- o St. Joe Fire Department, Searcy County

Water and Wastewater System Infrastructure

- Marble Falls Sewer Improvement District No. 1

The Marble Falls wastewater treatment plant does not operate well due to it being sized for a time when there was a larger community and a fully functioning amusement park at Dogpatch. The outfall for this facility discharges into a creek that eventually leads to the Buffalo River.

During the summer of 2021, Bass Pro founder, Johnny Morris, bought the former Dogpatch property for development as the Marble Falls Nature Park. An application for funding assistance for improvements to the wastewater treatment facility to serve the needs of the community and proposed new development was approved by the Arkansas Natural Resources Commission in December 2021. The commission approved a grant of \$1 million and a loan of \$609,614 for the project.

Engineering work is being completed on schedule and reappointments to the Board of Commissioners for the Marble Falls Water, Sewer, and Solid Waste Disposal Suburban Improvement District No. 1 are complete. Public hearings on the issuance of the bond required for loan closing were held in Newton County and Boone County on November 2, 2022. The preliminary design is expected to be completed by early 2024.

- City of Marshall Water System

The Arkansas Department of Agriculture's Natural Resources Commission approved for the City of Marshall a total funding amount of \$2,095,675 through two separate loans with principal forgiveness in 2015 and 2020 from the Arkansas Drinking Water State Revolving Loan Fund. The funds were provided to rehabilitate the City's water mains and reduce water loss in its water distribution system. The project was completed in November 2020.

- Septic Tank Remediation Program

Many people within the Buffalo River Watershed live in areas which are not served by municipal sewers and wastewater treatment is accomplished using septic systems. Considering that some regional soils are generally rocky and thin, conventional septic systems consisting of a septic tank and drain field are occasionally ineffective and can degrade water quality. In addition, when not maintained, even a functioning septic system can eventually fail and leach contaminants into the ground and directly into water sources.

The Arkansas Department of Agriculture's Natural Resources Division implemented Septic Tank Remediation Programs in the Illinois River and Upper White River watersheds in 2021 to provide resources and information to existing homeowners for replacement of old, failing systems, and promote proper maintenance of existing systems. The Natural Resources Division partners with a local entity within each watershed for administration of the programs.

The Natural Resources Division approved expanding the Septic Tank Remediation Program to the Buffalo River Watershed in June 2022. H2Ozarks was selected as the partnering entity and officially kicked off the Buffalo River Watershed addition on September 9, 2022. As of September 18, 2023, seven projects were completed, and 15 additional applications were approved.

- American Rescue Plan Act

Governor Hutchinson established the America Rescue Plan Act (ARPA) Steering Committee through Executive Order 21-08 to make recommendations on the best use of ARPA funding provided to the

state. In June of 2021, the Working Group for Water and other Infrastructure Projects was formed to make a recommendation to the ARPA steering committee.

The Working Group conducted an extensive assessment of drinking water, wastewater, and stormwater needs across the state. Based on over 1,400 responses, overall water infrastructure needs of \$5.2 billion were identified. On August 31, 2021, the Working Group submitted a final report to the ARPA Steering Committee. A timeline, eligibility requirements, and scoring criteria were also developed and included in the report.

On July 27, 2022, the House and Senate City, County and Local Affairs Committees met to hear statewide water and wastewater and the Arkansas Department of Agriculture's (Department) proposed ARPA funding plan.

On August 18, 2022, the ARPA Steering Committee approved \$270 million to the Department for water, wastewater, and stormwater projects and \$10 million for irrigation projects. After approval by the PEER Committee on September 13, 2022, the Arkansas Legislative Council approved the full \$270 million for water, wastewater, and stormwater projects to be administered by the Department's Natural Resources Division on September 16, 2022.

The Arkansas Natural Resources Commission approved distributing \$270 million of ARPA funding to 156 projects across the state in 58 counties on December 2, 2022. The following projects within the Buffalo River Watershed were awarded funding:

○ City of Jasper Water System Improvements	\$1,935,000
○ City of Jasper Wastewater Treatment Plant Improvements	\$5,000,000
○ Marble Falls Marble Falls Sewer Improvements	\$409,614
○ Searcy County SPG Water System Improvements	\$294,018.75

Applications for the following projects within the Buffalo River Watershed were submitted but did not receive ARPA funding:

○ Searcy County Water System Improvements	\$1,213,468
○ Newton County Water System Improvements	\$1,951,790
○ Newton County Wastewater System Improvements	\$6,069,840
○ City of Marshall Water System Improvements	\$1,215,500
○ City of Marshall Wastewater System Improvements	\$3,639,400

Projects that did not receive ARPA funding were encouraged to apply to the Natural Resources Division for funding through the Infrastructure Investment and Jobs Act and existing state programs.

Tourism and Tourism Impacts

The Arkansas Department of Parks, Heritage and Tourism (ADPHT) remains committed to promoting The Natural State's unmatched outdoor adventure product.

Key initiatives for Tourism include establishing Arkansas as a premiere, year-round outdoor recreation destination and increasing visitation to the state. To accomplish this, Arkansas Tourism is leaning into The

Natural State brand, optimizing campaign timing, and growing market representation. During the Spring of 2024, in addition to advertising in contiguous states, Tourism added 15 new media markets including Arizona, California, Colorado, Idaho, Illinois, Montana, Nevada, New Mexico, North Carolina, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming. Each of these markets are receiving targeted digital campaigns promoting Arkansas' access to rivers, lakes, hiking and biking trails, climbing routes, hunting, and fishing every day of the year. Tourism will continue to test and optimize messaging and campaign timing in these markets.

In addition, ADPHT continues to increase collaboration with other state agencies like Arkansas Game and Fish and the Department of Commerce. Each of these entities serve on the Natural State Initiative Advisory Council which was created by Governor Sanders in January.

Water Quality

BRCC member Arkansas Department of Energy and Environment, Division of Environmental Quality (DEQ) continues to collect water samples from the Buffalo River in its ambient water quality monitoring program. Samples are collected twice a quarter and analyzed for routine parameters.

APPENDIX A - TIMELINE OF EFFORTS

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|--------------------------|--|
| November 15, 2019 | Following approval by the Arkansas Legislative Council, a total of \$2 million was available for the BRCC efforts. \$1 million from the Governor's discretionary fund, and \$1 million from private donors. |
| December 12, 2019 | A 17-member subcommittee was established that is comprised of local landowners, local city and county government officials, and stakeholders in the areas of agriculture, conservation, and tourism. |
| January 23, 2020 | The first meeting of the BRCC members and subcommittee members scheduled to take place in Marshall, Arkansas was cancelled due to inclement weather. |
| February 13, 2020 | BRCC members and subcommittee members convened in Marshall, Arkansas for the first meeting. During this meeting the discussion centered around four main topic areas that will be the focus for future BRCC action and funding proposals. These four topic areas include: unpaved roads; cost-share programs for agriculture; water and wastewater system infrastructure; and tourism and tourism impacts. |
| March 11, 2020 | The first coronavirus case in Arkansas prompted the cancellation of scheduled subcommittee meetings on March 19, 2020 and April 2, 2020. |
| April 29, 2020 | BRCC members and subcommittee members convened by conference call to get an update on the work of the four subcommittees and discuss efforts to move forward. |
| June 2, 2020 | BRCC members and subcommittee members convened to review proposals submitted for funding as well as receive updates from the four topic areas. Requests for funding included four unpaved roads sites as well as three water and wastewater proposals. |

During the meeting the four unpaved roads sites and funding of \$250,000 to the City of Jasper for wastewater treatment facility improvements received recommendations for funding.

June 9, 2020

Presentation to the House and Senate Public Health, Welfare and Labor Committee. The presentation included an update on the BRCC efforts and the current status of funding requests. Secretary Ward stated that the BRCC members and subcommittee members would continue to refine the funding proposals that were received and will work with partners to maximize the use of state funding on projects within the Buffalo River Watershed.

July 2, 2020

The BRCC Tourism Work Group met to discuss tourism in the Buffalo River Watershed and to consider potential collaborative/engagement opportunities. Participants identified a strong interest in better understanding the feasibility of a process for developing a day-use permit system. The Tourism Work Group committed to work with the National Park Services as a partner in the park's efforts to conduct appropriate studies to better understand this issue and recommend policies.

August 6, 2020

BRCC members and subcommittee members convened to review updated proposals submitted for funding and received updates from the four topic areas.

BRCC members and subcommittee members decided to table discussions regarding funding for Marble Falls and Feral Hogs until additional information was provided. The BRCC approved the following updated requests for funding:

- (1) maintaining the funding amount of \$250,000 to the City of Jasper for wastewater treatment facility improvements;
- (2) revising funding requests for Unpaved Roads to reflect \$231,935 for Cane Branch Road in Searcy County and \$397,400 for Cave Mountain Road (to Hawksbill Crag) in Newton County. The total funding for Unpaved Roads equates to a \$570,979 once contingency costs are added and funding from the federal nonpoint source management program are subtracted.

August 20, 2020

Presentation to the House and Senate Public Health, Welfare and Labor Committee. The presentation included an update on the BRCC efforts and the status of funding requests. The legislative committee approved the funding request of \$250,000 to the City of Jasper and \$570,979 to assist with the Cane Branch Road and Cave Mountain Road unpaved road sites. With the approval of the two projects, funding of \$179,021 remains for distribution by the BRCC.

November 4, 2020

BRCC members and subcommittee members convened to receive updates from the four topic areas and review a funding proposal. The BRCC approved providing funding to the Town of Gilbert for their Dark-Sky Streetlight Conversion Proposal in the amount of \$11,600.

November 9, 2020

Consideration of the Town of Gilbert funding proposal was reviewed and approved by the House and Senate Public Health, Welfare and Labor Committee. With the approval of this project, funding of \$167,421 remains for distribution by the BRCC.

November 9, 2020 Joint press release from the BRCC members distributed seeking applications for projects that need assistance through the remaining \$167,421 in funding available through the BRCC. Applications were accepted through December 15, 2020.

December 15, 2020 Applications seeking assistance were received for five eligible projects. Funding proposals included requests for assistance with feral hog eradication, tree planting in Searcy County, the purchase and renovation of an historic building in Jasper for public use, and two Buffalo River algae bloom studies. Applications will be reviewed and discussed by the BRCC and subcommittee members at the next quarterly meeting.

January 7, 2021 BRCC members and subcommittee members convened to for updates on topic areas and receive presentations and consider the eligible proposals received by the December 15, 2020 application deadline.

January 21, 2021 BRCC members and subcommittee members reconvened to continue funding discussions. The BRCC members agreed to provide \$65,000 in funding to the U.S. Geological Survey to continue a water quality study and \$2,500 to fund the Searcy County Chamber of Commerce tree proposal.

January 29, 2021 BRCC members and subcommittee members reconvened to consider the feral hog eradication proposal submitted by the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services. The BRCC members agreed to provide \$50,000 for the feral hog eradication project and conduct additional research on the proposed mobile app project.

February 4, 2021 Secretary Ward provided a report on the BRCC's activities and presented funding recommendations to the Arkansas House and Senate Joint Budget Committee. The funding recommendations were approved.

February 9, 2021 \$50,000 approved by the BRCC for feral hog eradication efforts in the Buffalo River Watershed was disbursed to the U.S. Department of Agriculture

February 19, 2021 \$65,000 approved by the BRCC for the continuation of the U.S. Geological Survey's (USGS) water quality study on the Buffalo River was provided to the USGS.

April 9, 2021 \$2,500 was disbursed for the Greater Searcy County Chamber of Commerce tree planting project.

June 9, 2021 \$250,000 was disbursed to the City of Jasper for improvements to the water treatment facility.

June 29, 2021 The BRCC met to receive updates from the four topic areas and discuss Act 536 that codified the BRCC in Arkansas Code. Senator Irvin provided remarks about her sponsorship of Act 536 to help ensure the work of the BRCC continues.

September 29, 2021 BRCC members and subcommittee members met in Jasper for project updates and a presentation from representatives of Johnny Morris and Bass Pro Shops regarding plans to redevelop the former Dogpatch theme park property in Newton County.

- November 30, 2021** BRCC members and subcommittee members met in Marshall for project updates. The BRCC members agreed to consider funding proposals for the remaining balance of \$49,921 at the first quarterly meeting in 2022.
- March 23, 2022** BRCC members and subcommittee members met via Zoom to receive project updates and hear presentations on funding proposals.
- April 29, 2022** BRCC members and subcommittee members met via Zoom. BRCC members voted to allocate \$24,960.50, half of the remaining balance of \$49,921, to the feral hog eradication project and the U.S. Geological Survey filamentous algae study.
- May 13, 2022** BRCC members and subcommittee members met in Jasper for a tour of the Cave Mountain Road project and discussion of the Jasper water project, followed by a tour and discussion in St. Joe about feral hog eradication efforts.
- August 19, 2022** BRCC members and subcommittee members met in Jasper to receive project updates and a presentation on the status of the Marble Falls Nature Park project that is being developed at the former Dogpatch site.
- November 18, 2022** BRCC members and subcommittee members met in Marshall to receive project updates, a presentation by the City of Marshall on needed upgrades to its water and wastewater systems, a presentation by the U.S. Forest Service on the Robert's Gap Project and water quality sampling, an update by H2Ozarks on the septic tank replacement program, and a report from the Marshall FFA on recent activities. BRCC members voted to work with Governor-elect Sanders and the Arkansas General Assembly to pursue additional funding for the BRCC to continue working on projects within the Buffalo River watershed.
- March 31, 2023** BRCC members and subcommittee members met via Zoom to receive project updates and a presentation by Connie Walden, Project Manager for the Marble Falls Sewer Improvement District project.
- July 17, 2023** BRCC members and subcommittee members met in Ponca to receive project updates and discuss distribution of the remaining BRCC funding. BRCC members voted to consider proposals for the remaining funds at the next meeting.
- September 21, 2023** BRCC members and subcommittee members met in Jasper to receive project updates and review proposals for the remaining BRCC funds. After discussion, BRCC members requested additional information about the proposals and voted to review them again in October.
- October 31, 2023** BRCC members and subcommittee members met to review proposals for the remaining BRCC funds. The members voted to award the balance of \$69,676 for the proposal submitted by H2Ozarks to improve water quality in the Mill Creek watershed within the Buffalo National River watershed.

APPENDIX B - FEDERAL PARTNER UPDATES

2023 Update on National Forest Service Activities within the Buffalo River Watershed

The Forest Service continued monitoring of a maternity colony of Indiana Bat in 2023 in cooperative efforts with the US Fish & Wildlife Service. A Biological Opinion and updated conservation measures for the Forest was issued with monitoring data contributing to application of the Endangered Species Act in land management activities on Forest Service lands. Water quality monitoring continues at seven sites in the Buffalo, King's and White River watersheds with data collected on temperature, pH, turbidity and conductivity in 2023. Management activities in watershed include improvement of road surfaces to reduce sedimentation, providing numerous recreational opportunities around the Richland Creek and Upper Buffalo Wilderness areas, prescribed burning of 9,757 acres to increase ground cover diversity and reduce fuel loading. New in 2023 is an accessible hunting opportunity with Arkansas Game & Fish Commission in the Bearcat Hollow Wildlife Management Area. Future activities planned include Whitaker Point trail improvement, expansion of the Upper Buffalo bike trails, commercial thinning of pine and hardwood areas, prescribed burning, and continued road improvement in conjunction with Searcy, Newton and Madison County. The Forest Service is working with surrounding communities and other land management agencies to plan for increased in visitation for the April 8, 2024, solar eclipse across the whole Ozark St. Francis National Forests. The Forest Service continues to engage with interested groups, counties, agencies and individuals about management activities and access within the watershed.

The 857,632 acre Buffalo River watershed includes 177,220 acres of Forest Service lands (21% of watershed) intermixed with private and state ownership (68% of watershed), and the Buffalo National River (11% of the watershed) in Newton and Searcy Counties. Congressionally designated Leatherwood, Richland Creek and Upper Buffalo Wilderness areas make up 40,479 acres (23%) of Forest Service lands within the watershed.

2023 Update on Buffalo National River Activities

Buffalo National River staff and research partners continued to work on the many efforts previously reported on in the 2020 -2022 annual reports. What follows is a brief overview of the work going on at Buffalo National River, specific to the four major elements identified by the Buffalo River Conservation Committee (BRCC). It continues to be a pleasure for the National Park Service (NPS) at Buffalo National River to work alongside the BRCC and its many dedicated committee members and communities toward collaborative protection of the watershed.

Water Quality and Septic Systems

Buffalo National River has a long history of collecting water quality samples dating back to the 1980's. Each year Buffalo National River scientists collect hundreds of water samples throughout the park, including tributaries, springs, and main stem sites, to analyze potential impacts to water quality, aquatic organisms, and human health. These data are used to assess for 303d listings and observe trends to guide management actions regarding

resource protection and visitor safety. The park shares data with Arkansas Department of Health, Arkansas Department of Energy and Environment, the Ozark Society, and with the NPS Office of Public Health. Data can be accessed at this link https://www.adeg.state.ar.us/techsvs/env_multi_lab/water_quality_station.aspx.

Some examples of projects the park worked on in 2023 include:

- Publication in final stages of a three-year long river-wide quantitative and qualitative survey of mussel populations in partnership with United States Geologic Survey (USGS), Columbia Environmental Research Center, and Arkansas State University.
- USGS-Little Rock, ADEE, and Arkansas Game and Fish Commission (AGFC) continued to survey river-wide filamentous algae.
- Buffalo National River, the National Park Service's Office of Public Health, U.S. Environmental Protection Agency Cyanobacteria Monitoring Collaborative, and the National Oceanic and Atmospheric Administration's Phytoplankton Monitoring Network, are participating in the second year of studies to establish nationwide protocols for Harmful Algal Blooms monitoring and toxin sampling. The project was completed in 2022 and the park is awaiting laboratory results for the first two years of data collection. Results will inform the development of a future sampling strategy.
- Arkansas Water Resources Center located at the University of Arkansas, and Buffalo National River staff continue to review and finalize a report that compiles and analyzes decades of data to understand trends in water quality and inform the future of the park's long term water quality program.
- In 2022 Buffalo National River expanded on a \$53,600 grant from the National Park Foundation to support science in the river. This study helps to better understand the relationship of stream flow and river channel structure in the development and maintenance of habitats suitable for mussel beds. In 2023 staff compiled data and are drafting a report.
- Buffalo National River developed a project to use sonar equipment and software to produce 3D images of the river channel and failing streambanks to understand water quality and prioritize streambank revetment projects in future years. The team is working through software challenges and collection of images.
- Fresh water Mussel habitat suitability project initiated. In collaboration with USGS, University of Missouri at Columbia, Arkansas State University, and Ozark National Scenic Riverways.
- Scientist in the Park intern completed a study in November 2022, "Combining remote sensing and field-based methods to quantify algal coverage along the Buffalo National River". This project may lead to methodology that can determine algal coverage in freshwater systems from space.

The park routinely inspects wastewater systems in the park and works closely with state agencies and the US Public Health Service to protect water quality.

Unpaved Roads

Construction should begin in 2024 on repairs to the Tyler Bend launch.

Agriculture

Over 1,500 acres in the park, across three counties (Marion, Newton, and Searcy) at Buffalo National River, are in agricultural use. These agricultural fields are used by local farmers who conduct haying and grazing activities under Special Use Permits (SUP) issued by the NPS. The park continues to monitor the current 29 hay permits and six

grazing permits that are in place. Permit conditions require permittees to implement specific best management practices (BMP) for agricultural fields. These BMPs include appropriate setbacks from riparian zones and nutrient management (fertilizer/lime applications) based on recommendations from the University of Arkansas and county extension agents. Park staff installed permit boundary markers on hay fields nearest the river. Efforts to establish vegetative buffers between agricultural fields and the adjacent waterways was completed in 2023 and staff are monitoring vegetation development in the buffer zones.

Tourism

In 2022 Buffalo National River saw 1.3 million visitors. The most recent NPS economic impact data available indicates that in 2022, 1.3 million park visitors spent an estimated \$78.5 million in local gateway regions while visiting Buffalo National River. These expenditures supported a total of 864 jobs.

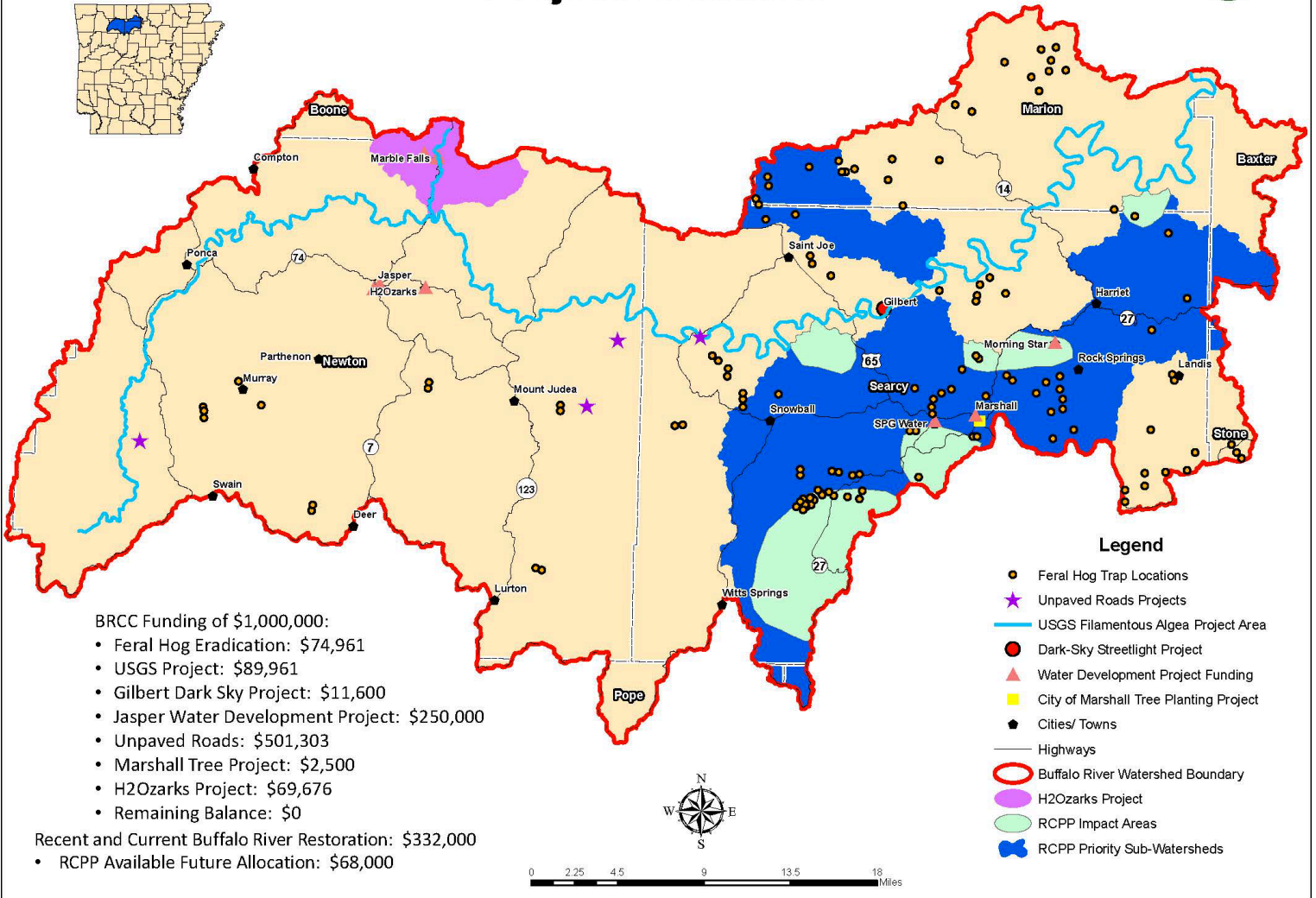
The park continues to study and develop infrastructure projects that will better serve the public at river access points and roads, while designing for sustainability and enjoyment of the resources.

Summary

The NPS at Buffalo National River looks forward to future partnership opportunities in the watershed, of which the BRCC plays an important role. The shared mission of working with communities, residents, and stakeholders in the Buffalo River Watershed make the BRCC and NPS partnership an integral part of protecting the watershed.

APPENDIX C- Project Map

Buffalo River Watershed Project Locations



BRCC Funding of \$1,000,000:

- Feral Hog Eradication: \$74,961
- USGS Project: \$89,961
- Gilbert Dark Sky Project: \$11,600
- Jasper Water Development Project: \$250,000
- Unpaved Roads: \$501,303
- Marshall Tree Project: \$2,500
- H2Ozarks Project: \$69,676
- Remaining Balance: \$0

Recent and Current Buffalo River Restoration: \$332,000

- RCPP Available Future Allocation: \$68,000

Legend

- Feral Hog Trap Locations
- ★ Unpaved Roads Projects
- USGS Filamentous Algae Project Area
- Dark-Sky Streetlight Project
- ▲ Water Development Project Funding
- City of Marshall Tree Planting Project
- ★ Cities/ Towns
- Highways
- Buffalo River Watershed Boundary
- H2Ozarks Project
- RCPP Impact Areas
- RCPP Priority Sub-Watersheds





Arkansas Department of Agriculture
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**BUFFALO RIVER CONSERVATION COMMITTEE
2022 ANNUAL REPORT**