EMPLOYEE HAPPENINGS

Cody

Cody Hudson, P.E., who has served as the Environmental Engineer for the District for the last four years, has transferred to the Engineering Department as Senior Engineer. Cody has been a great asset to the District in his former role in the Environmental Quality Department. We are confident he will continue to expand his contributions to the District in this new position.

Kelley

Kelley Beth Paul started in August as the new Assistant Education Coordinator. Kelley is a Fayetteville native and has a love for the outdoors. She has a bachelor's degree in Environmental, Soil, and Water Science from the University of Arkansas and an associate degree in Environmental Management from Northwest Arkansas Community College. Kelley Beth is an advocate for all animals. She enjoys experiencing the magic of the Ozark natural environment especially when she crosses paths with insects, reptiles, and amphibians.

Mindi

Mindi Dearing was recognized for her hard work at the Southwest Section of the American Water Works Association (AWWA) Conference held in October. The Wonderful Wise Watchdogs Willfully Wielding Water (A.K.A. The 6Ws) award recognizes section members who are providing, or have provided, continued outstanding leadership and service to the Southwest Section of AWWA, and encourages continued involvement in the future. The District would like to congratulate Mindi Dearing on being one of the awardees.

INTERDEPARTMENTAL PROMOTIONS

Kelly Payne was promoted from Operator I to Operator II

Michael Noel was promoted from Facilities Maintenance to Mechanic 1

WESTERN CORRIDOR EXPANSION FINANCING BRINGS TREMENDOUS SAVINGS TO BWD CUSTOMERS

Northwest Arkansas has one of the fastest-growing populations in the country, and the water demands are growing right along with that population. BWD provides water to our four customer cities, Bentonville, Fayetteville, Rogers, and Springdale, as well as some outlying areas that are served by those cities. BWD's average water sales have increased drastically from around 41 million gallons per day (MGD) in fiscal year 2009 to almost 66 MGD in 2022, which is about a 60% increase.

One project to help address the growing water demand is our Western Corridor Expansion project. This project consists of approximately 40,000 linear feet of 60″-diameter pipeline that will carry treated water from our treatment plant westward to a large pump station, which will drastically increase BWD's conveyance capacity to the customer cities, as well as increase redundancy and reliability of our water conveyance infrastructure. Construction on the project is expected to begin in 2023, and the estimated cost for the pipeline and the pump station combined is approximately $130 million.

BWD plans to fund the pump station from its reserves and intends to finance the pipeline, which was estimated to cost approximately $100 million. For the financing, the District applied for Drinking Water State Revolving Loan Funds through the Arkansas Natural Resources Division and was approved for $100 million with a 20-year term and an annual rate of 1.75%. This is a wonderfully low rate in an environment of rising interest rates. It is anticipated that BWD will save almost $30 million in financing costs by using these funds versus bond financing, which will be a tremendous savings for our customers. We thank Deputy Director Ryan Benefield, Water Development Section Manager Debby Dickson, and the rest of the Arkansas Natural Resources Division staff for working with BWD in order to help our customers, the residents and businesses of Northwest Arkansas.

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The SOURCE

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WAR EAGLE CREEK WATERSHED INITIATIVE FUNDING

Beaver Watershed Alliance (BWA), in partnership with Beaver Water District (BWD) and the Watershed Conservation Resource Center (WCRC), recently learned that it will receive $5 million in funding for the War Eagle Creek Watershed Initiative. BWA and WCRC applied last spring for funding from the Regional Conservation Partnership Program (RCPP) through the Natural Resources Conservation Service (NRCS). Funding includes $2.4 million from the NRCS and an additional $2.6 million in cash and in-kind match from conservation partners like Beaver Water District. BWD will be contributing $745,000 cash and $1.3 million in-kind to the project over a period of five years.

War Eagle Creek is one of six major tributaries to the White River forming Beaver Lake, the primary drinking water source for Northwest Arkansas (NWA). War Eagle Creek Watershed is the largest of the six major tributaries with land uses that include 52% forest, 37% pasture, and 1300 miles of unpaved roads. The War Eagle Creek Watershed Initiative will protect drinking water for more than 550,000 Arkansans, improve the local farming economy, improve wildlife and aquatic ecosystems, and address major resource concerns, including soil, water, plants, and animals.

These same partners recently completed another RCPP along a portion of the West Fork of the White River. Partly due to the success of that project, we applied again and were selected to receive funding. The West Fork RCPP included large scale stream restoration work, landowner best management practices, and education and outreach. Funding for the War Eagle Creek Watershed Initiative will go toward a variety of projects but will focus on three important areas: sediment catchment, river and riparian restoration, and unpaved roads. Each of these three are important for reducing sediment and nutrient runoff to our drinking water source.

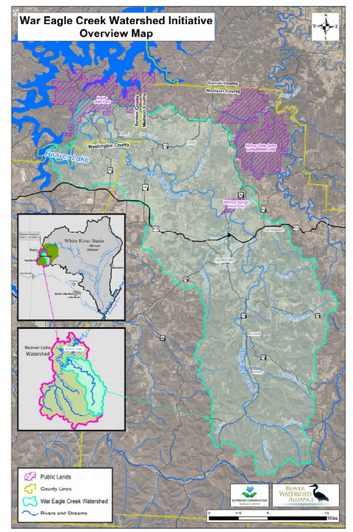
- Catching the sediment will occur by a new take on an old conservation practice. Specially designed ponds installed in headwater areas will capture runoff and slowly drain the water, catching sediment in the process and slowing down water velocity in headwater streams.
- River and riparian restoration work will help stabilize streambanks that are responsible for the majority of sediment that drains to Beaver Lake.
- Since unpaved roads are also a major source of sediment during runoff events, we will implement the tried and tested practices established by the Arkansas Unpaved Roads Program. This will help maintain unpaved roads in peak condition and mitigate sediment loss.

Specific outcomes for the program include at least one large stream restoration be implemented on the War Eagle Creek. Using natural channel design principles, at least a 75% reduction in sediment and phosphorus loadings from accelerated streambank erosion should occur. A total of 100 conservation-based plans will be developed and three non-US government-held conservation easements will be achieved. This initiative will also benefit eight threatened and endangered species identified in the War Eagle watershed. The economic impact will be significant advancements in conservation and capacity of local programs, as well as benefits directly to producers which lower their out-of-pocket costs to implement land management practices. Social outcomes will include the opportunity to provide technical assistance and implement land management practices to hundreds of producers, many of which previously applied for assistance but did not receive financial aid because of a lack of funding. Historically underserved groups will benefit greatly from increased efforts to provide accessibility of program components and education on conservation benefits.

Other partners in the War Eagle Creek Watershed Initiative include:

- Northwest Arkansas Land Trust
- Arkansas Game and Fish Commission
- H2Ozarks
- Farm Bureau
- Arkansas Department of Agriculture
- Madison and Washington Counties Soil and Water Districts
- Arkansas Archaeological Survey
- Hispanic Women's Organization of Arkansas

For more general information on the program, please reach out to James McCarty at Beaver Water District (jmccarty@bwdh2o.org). If you are a landowner in the War Eagle Creek Watershed and would like to know how to participate, please reach out to the Beaver Watershed Alliance (info@beaverwatershedalliance.org).



THE CRISIS OF SUCCESS (PART TWO)

By M. Lane Crider P.E., LEED AP

In the last newsletter, I focused on a concept that had been introduced by the NWA Council's Regional Strategy 2022 – 2026. Decades of successful planning, messaging, and cooperative efforts have resulted in significant ongoing and projected growth. With the success, however, has come increasing housing costs, a growing shortage of affordable workforce housing, and rapidly decreasing infrastructure capacity. In addition, the threat to our natural resources like clean air and water, abundant and accessible natural areas and green spaces, becomes greater every day. In this edition, I want to further highlight this "crisis of success" and how Beaver Water District is working to balance preservation of our most important natural resources with preparation for, and support of, ongoing growth and development. As a matter of fact, this issue falls squarely within the first sentence of the Vision Statement of the District; *"Beaver Water District will support the quality of life and economic growth of Northwest Arkansas by preserving the quality of our drinking water source, Beaver Lake."*

In May of 2006, the BWD Board of Directors adopted a philosophy and position on source water protection, committing the District to provide leadership and take actions necessary to protect Beaver Lake as a natural resource. In 2009, with encouragement from the District, the NWA Council commissioned the development of a Beaver Lake Watershed Protection Strategy, which outlined specific actions to protect the watershed and reduce runoff into the lake. The actions included formation of a watershed alliance, the implementation of core best management practices, education, stewardship, and water quality monitoring. The Strategy was updated in 2012 and again in 2016, when a cost-benefit analysis of the Strategy indicated a return on investment of 144% and a net present value in the hundreds of millions of dollars.

While there are a variety of actions prescribed in the Strategy, there are three core best management practices that have the most impact on the reduction of sediment and nutrient loads into the lake; land conservation, stream restoration, and land development best management practices. To date, the most successful of these has been nutrient load reduction through streambank restoration. The projects that BWD has supported over the last several years in the West Fork of the White River sub-watershed have resulted in an estimated annual reduction of sediment of more than 15,000 tons per year and an estimated reduction in total phosphorus loading of 10,000 pounds per year!

Last year, the District's Environmental Quality Department developed a five-year strategic plan for continued source water protection efforts. Even as we expand the stream restoration projects into the War Eagle Creek sub-watershed, we are evaluating opportunities for land and riparian area conservation. We are also increasing our efforts to educate our state, county, and local municipal leaders, along with the general public, on the critical importance of protecting our drinking water source through smart, intentional development planning and approval.

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THE FIRST BEAVER LAKE VOLUNTEER DAY WAS A SUCCESS!

On the very windy morning of October 22, about seventy volunteers came out to Beaver Lake. Many came to pick up litter all around the lake, some to visit the educational booths, and others to hear the results of Secchi Day of Beaver Lake. The planning partners of Beaver Water District, U.S. Army Corps of Engineers Beaver Lake Project, H2Ozarks, and the Beaver Lake Foundation were very happy with the impacts of the day.

2,324 lbs of debris removed!

WEST FORK WHITE RIVER SUCCESS STORY

By: Jarrod Phillips and James McCarty

Matthew Van Eps, Becky Roark, Barbara Fraleigh, James McCarty and Sandi Formica, with Luna Red, stand on a restored section of West Fork White River in Washington County. Photo by Jacqueline Froelich / KUAF

The Arkansas Department of Agriculture's Natural Resources Division recently announced that water quality improvement efforts on the West Fork White River have resulted in the river's removal from the state's impaired waterbodies list. The list of impaired waterbodies, or 303(d) list, is updated every two years by the Arkansas Department of Environmental Quality. The list contains information on the rivers and lakes of Arkansas as it relates to their specific designated uses, such as supporting aquatic life or recreation. For example, if a water body has drinking water supply as a designated use and the water quality degrades to the point where producing drinking water is made more difficult, then the water body would be considered impaired. There are many water bodies on the state's impaired waterbodies list, and more are added each year, but it is a rare occurrence for them to be removed due to water quality improvement. It is so rare that the Environmental Protection Agency celebrates each one with a Nonpoint Source Success Story (https://bit.ly/3DzClAl). There have only been seven in the entire state since 2009.

Beaver Water District's core mission is to provide the highest quality drinking water at the lowest possible cost. One of the leading areas of focus in achieving that goal is the protection and preservation of our source waters. The West Fork White River along with the Middle and East Fork White Rivers are among the major tributaries to the upper portion of Beaver Lake. A total of 27.2 miles of the West Fork White River has been impaired since 1998 due to high levels of sediment and turbidity from streambank erosion and excessive runoff. With the significant loss of vegetated stream buffers, streambank instability and erosion become more likely. The increases in suspended sediment downstream can then pose a significant risk to surface water intakes.

Erosion and sediment are the leading source and cause of water quality pollution in Arkansas and across the nation. However, as of 2018, the uppermost 16.5 miles of the river met the state's water quality criterion for the first time in 20 years thanks to the joint efforts of various stakeholders within our watershed. Here at the District, we understand the importance of collaboration and partnership, and without the impassioned efforts of those with the University of Arkansas System Division of Agriculture, Watershed Conservation Resources Center, Beaver Watershed Alliance, the Arkansas Water Resources Center, and the Arkansas Department of Agriculture's Natural Resources Division, this would not have been possible. Beaver Lake serves close to 1 in 5 Arkansans with drinking water and is in one of the most rapidly developing regions in the nation. With increased development comes an ever-increasing pressure on our natural resources and the ecosystems that we rely on to maintain the high quality of life we are accustomed to here in Northwest Arkansas. This further highlights the significance of achieving the necessary water quality standards to see this segment of the West Fork White River removed from the impaired water bodies list. As we move into the future, the focus on source water protection and collaborative partnerships will require increasing consideration, and we here at Beaver Water District as well as the rest of the conservation community in Northwest Arkansas are well-positioned to rise to the challenge.

Matthew Rich presented the 2022 results from Secchi Day data collected in August during the Beaver Lake Volunteer Day on October 22. The Winter issue of The Source will highlight the findings.