



Forest to Faucet: Attendees Identify Common Ground



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*By Amy Wilson
Beaver Water District Public Affairs Director*

On May 26 and 27, I was one of the few non-technical people who joined a larger group of about 45 who gathered for the 2015 Arkansas Forests and Drinking Water Forum. For two days, experts and stakeholders from Arkansas's forestry and drinking water sectors convened at Camp Mitchell on Petit Jean Mountain near Morrilton, Ark., to explore the connections between forests and drinking water and to think creatively about how the two sectors can better collaborate to ensure the viability of forests and drinking water in Arkansas for years to come.

All of those present agreed that forests and drinking water are strongly connected and dependent upon one another. "Southeastern forests that are actively

managed can help protect and increase drinking water supplies while also providing economic benefits," the draft report from the Forum states.

A 2011 report from the U.S. Department of Agriculture puts it this way: "Forests have long been seen as important sources of clean drinking water. In many areas across the U.S., forest protection is employed as a method to safeguard clean drinking water. Forest conservation is a critical element of plans to protect drinking water for a number of urban areas across the country, including New York, Seattle, Portland, San Francisco, and Boston. This is, in part, because conserving forests reduces the need for costly water filtration facilities." (Source: Emily Weidner & Al Todd, From the Forest to the Faucet: Drinking Water

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and Forests in the U.S. - Methods Paper, October 2011, USDA Forest Service)

Throughout the two days of tours, presentations, and discussions, what stood out to me the most was the passion and wisdom expressed at some point by each and every person there. While I cannot elaborate on every instance, I will try to provide a few specific examples.

On the first day, many of the participants gathered to go on a watershed restoration site tour sponsored by Central Arkansas Water (CAW). Participants toured Winrock Grass Farm Forest Legacy Restoration Project, which highlighted CAW and landowner collaboration, land acquisition, stream bank restoration, and a tree demonstration/research site. According to the Forum report, the primary project outcome is to reduce sediment loads to the water treatment plant. CAW is currently trying to quantify the reduction in terms of water treatment cost savings. Dr. Hal Liechty of the School of Forestry and Natural Resources, University of Arkansas at Monticello, spoke with fervor and dedication about the fast growing green ash and the slower growing water oak tree, and all the details that should be considered when determining which tree to plant to reforest the Sallisaw Field. Meanwhile, Sandi Formica of the Watershed Conservation Resource Center, commented that stream restoration projects are a good alternative to “just upgrading the treatment plant. Why not squeeze out more phosphorous and ecological value from plants through ecosystem restoration? The vegetation will help you during that big flood.” Blake Weindorf of CAW talked about the removal of three low water dams from the Little Maumelle, which will lead to better water quality and better habitat for the fish. At one point he said of the work, “It’s a little more artwork than engineering.”

On the morning of the second day, Tamara Walkingstick, Associate Director of the Arkansas Forest Resources Center-University of Arkansas Division of Agriculture, reminded everyone that we were gathered to learn from each other.

She said the goal for the day was to start conversations, develop networks and determine some next steps and objectives by day’s end. Kitty Weisman, a consultant with the U.S. Endowment for Forestry and Drinking Water, then introduced herself and said “About two-thirds of U.S. fresh water comes from forest. Forests, when managed well, provide drinking water that’s easier to treat.”

Alan Fortenberry, CEO of Beaver Water District, followed up with an overview of a drinking water utility. A standout moment for someone non-technical arose when he said, “We treat every drop of water as if you will be drinking it. Turbidity in water is the soil particles. That’s what carries viruses and protozoans that cause disease. When we conserve healthy forested land and water, we keep that dirt from moving and we are all better off for it.”

Randy Easley of CAW talked about the connection between water treatment and protecting the source of drinking water through proper management of the land. My greatest takeaway from his talk was his mention of Gifford Pinchot, a new name to me. Pinchot is a forestry pioneer well-known for “A Primer of Forestry” published in 1905. His common sense approach to forestry is exemplified in this core statement of principle: “A forest, large or small, may render its service in many ways.” Of course, the services he mentions include protecting the headwaters of streams and safeguarding against floods. “A forest used in this way is called a protection forest”

State Forester Joe Fox of the Arkansas Forestry Commission, sounding a lot like Pinchot, made this inclusive and simple statement, forging the tie between water suppliers and forest owners/managers together without question: “Forested landscapes clean our water. We need each other.” Throughout the day, he spoke matter-of-factly and eloquently about trees and forests and water. “How do foresters think? Foresters think in very large increments of time,” he said. “We’re thinking of 30 and 50 years out We’re

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trying to emulate nature. We're trying to manage as naturally as possible."

George Rheinhardt, a forester with the National Resources Conservation Service, U.S. Department of Agriculture-Arkansas, said, "When you find clean water, you will find a forest nearby."

Any water treatment expert manages in large increments of time as well, so this speaks volumes. A forest full of healthy trees does not grow overnight, nor does a water treatment and distribution utility get built in a short time frame. Years of planning and thought go into burying huge, expensive pipes underground, building large tanks above and below ground, designing and paying for treatment facilities that will clean and distribute water safe for drinking, water that protects human life. Healthy water is no small feat, nor is a healthy forest. It takes thoughtful people who care about the land, the water, the wildlife, the trees.

Mayor Gary Baxter of the city of Mulberry, population 1,655, joined the Forum to provide a look at the issues of small water utilities in Arkansas. One of the biggest challenges the city is facing is the runoff into T.J. House Reservoir during storm events. "It's a constant battle," Mayor Baxter said. "Our drinking water is one of our most prized possessions." When he ran for office in 2010, he promised voters that he would focus on increasing the water capacity the city has

so they can continue to sell more water to wholesale users and add more customers in rural areas, who need water service. To do that and do it well, the mayor wants to work with experts on a source water protection plan that will help to minimize storm water runoff, which should help keep treatment costs lower. Thoughtful forest management near the reservoir will be a great help to the city of Mulberry.

Dr. Robert Morgan, Manager of Environmental Quality for Beaver Water District, noted that the mayor is on the right track with this thinking. "The cost of water treatment goes up when forest cover goes below 60 percent," Morgan said. "There's a relationship and it's important. Forest is a stable source of water ... it generally yields cleaner water."

The wisdom of our elders made its presence known through the person of Mr. Charles Purtle, a tree farmer for 35 years whose family owns two farms spanning about 2,000 acres in south Arkansas. He talked about how knowledge of forestry is not only found in books; it's passed down through the generations. For instance, his grandfather taught him that "you don't cut a pine tree until the bark is slick. ... We have a big commitment to soil and water stewardship," Purtle said. "If you want to devastate a society, take away their water. I don't think you all realize just how important your work is."



On the left, Forum participants tour the Sallisaw Field, in Central Arkansas Water's Winrock Grass Farm Forest Legacy Restoration Project.

On the right is a water oak seedling planted in the Sallisaw Field.

BWD Board Approves 3 cent increase per thousand gallons

On May 21, Beaver Water District's Board of Directors voted to increase the price per thousand gallons by 3 cents effective Oct. 1, 2015. This means the wholesale rate will increase from \$1.26 to \$1.29 per thousand gallons to our four customer cities of Fayetteville, Springdale, Rogers and Bentonville. This is the first of a planned set of increases designed to achieve an overall increase of 12 cents over the next five years to cover additional operating expenses and anticipated capital expenditures.

"Keeping with the philosophy of small increases over time, the BWD wholesale rate has increased only 10 cents over the last 10 years for an average of one cent per year," said Bill Watkins of Rogers, President of the BWD Board. "We pride ourselves on planning for the future and taking a conservative approach that allows our customer cities to do their due diligence and plan accordingly. We don't like surprises."

July is Lakes Appreciation Month



July 2015 has been proclaimed by Governor Asa Hutchinson as Lakes Appreciation Month in Arkansas. With more than a half-million acres of reservoirs in Arkansas, summer is a great time to encourage all Arkansans to appreciate the lakes of our Natural State by participating in recreational activities such as swimming and boating, taking care of lakes, and enjoying the scenic beauty and benefits provided by them – including drinking water for much of the state.

"As one of the largest lakes in Arkansas, and our drinking water source in Northwest Arkansas, Beaver Lake is certainly worthy of our appreciation and protection, and I hope others will join us in doing so," said John Pennington, Executive Director of the Beaver Watershed Alliance. Amy Wilson, Director of Public Affairs at Beaver Water District,

said, "Beaver Water District's support of Lakes Appreciation Month is part of our ongoing tradition of 50 years of supplying water to much of Northwest Arkansas and working to ensure that it is safe to drink."

Lakes Appreciation Month is a signature program of the North American Lake Management Society (NALMS) whose mission is to foster the management and protection of lakes and reservoirs for today and tomorrow. Specific goals of the society are to promote public awareness of lake ecosystems, encourage public support for national, state, and local programs promoting management of lakes and their watershed, and facilitate the exchange of information on the technical and administrative aspects of managing lakes and their watersheds. According to Reed Green of the United States Geological Survey and Brad Hufhines of Beaver Water District, NALMS board members, "Water can no longer be taken for granted, and we cannot expect that our water resources will always be here and be usable unless we take care of them."

To learn more about the national Lakes Appreciation program, visit www.nalms.org, and to learn more about Lakes Appreciation Month activities taking place in the Beaver Lake Watershed or how you can be involved in helping protect water quality in the Beaver Lake Watershed, visit www.beaverwatershedalliance.org.

SW Section AWWA/Beaver Water District Team Ties for 6th Place Overall in First Top Ops at National Competition



Accolades go out to the Southwest Section American Water Works Association's Top Ops team. They tied for 6th place in North America among a field that included 19 teams on June 10th in Anaheim, Calif., during their first national competition. Team members (from left) Frank Blowers, Nicole Bridges and Dustin Mayhew all work for Beaver Water District (BWD). Blowers of Pea Ridge is a Maintenance Mechanic II, Bridges of Lowell is a Laboratory Analyst, and Mayhew of Springdale is a Plant Operator II. Combined together, they bring together more than 30 years of experience in the water field to the Top Ops competition.

Jesse Burch, BWD Operations Supervisor, served as the team's captain and coach this past year. "Overall, I think we did a great job, considering it was our first year to compete," Burch said. Bridges agreed. "I'm very, very proud of our team especially since this was our first year competing. We'll get them next year."

Alan Fortenberry, BWD's CEO, said he was not surprised at the team's success. "Our people here at Beaver Water work very hard to know their jobs well and do things right. I know that Frank, Nikki and Dustin practiced a lot

and prepared diligently for this event. The impressive thing to me was that they won two preliminary rounds, among three teams, and finished second in their other preliminary round. Excellent! I am very proud of their achievement."

Top Ops is the "College Bowl" or "Jeopardy!" of the water industry, where teams of water operators from American Water Works Association (AWWA) sections compete against each other in a competitive question-and-answer tournament. A moderator poses a broad range of technical questions that involve all aspects of water operations, from basic science, public health and drinking water standards to water treatment plant operations and maintenance practices, water quality, water distribution practices, pumps and hydraulics, and laboratory procedures. Math questions are also included.

The team had been practicing for nationals since they took first place in the Top Ops Challenge held Oct. 14, 2014, in Tulsa, OK, during the annual meeting of the Southwest Section of AWWA. Mindi Dearing of Farmington, BWD's Laboratory Supervisor, moderated the Southwest Section event and also served as a moderator for the national event as part of her duties serving on the Operator Involvement Committee.

The Top Ops Challenge is designed to promote excellence and professionalism and provide an opportunity for water professionals to showcase their talents in all aspects of water operations. Established in 1881, AWWA is the largest nonprofit, scientific and educational association dedicated to managing and treating water, the world's most important resource. For more information, visit www.awwa.org.

Employee Profile: Nicole “Nikki” Bridges, Laboratory Analyst

Editor’s Note: I hope you enjoy the Q & A below and learning more about Nikki, one of our many outstanding Beaver Water District employees.

– Amy Wilson

Beaver Water District Public Affairs Director



Q: Are you an Arkansas native?

A: Yes, born and raised!

Q: Who are your parents?

A: Arlie and Rita Bridges

Q: Where did you graduate from high school?

A: Valley Springs High School in Valley Springs, AR

Q: What got you interested in water, in studying water?

A: I grew up very close to the Buffalo River and spent a lot of time on and around the river. As a result, I noticed how the water quality changed every year as a consequence of heavy tourism during the summer months. This revelation at a very young age, that our actions could affect this natural resource in such a dire manner, really fueled my appreciation for clean water and curiosity about water quality.

Q: What is your degree, what year did you get it, and where did you go to college?

A: Bachelor of Science in Chemistry with an Environmental Emphasis, Missouri State University, 2011

Q: Give me a short work background.

A: I got my start in the industry as an intern at the drinking water treatment

laboratory for City Utilities in Springfield, Mo. I worked there for two years while in college until I graduated and could no longer be an intern. I then took a job at a chemical manufacturing plant working night shift in the Quality Control laboratory. I only worked there for about a month before jumping at the opportunity to work for Beaver Water District. I’ve been happily employed at BWD ever since.

Q: What year did you start working at Beaver Water District?

A: I started here in January 2013.

Q: What do you like most about working at Beaver Water District?

A: First of all, I couldn’t believe how lucky I was to find the job at BWD. My degree and internship had focused me on a career path in the drinking water industry and after six years of living in Missouri, I was ready to move back to my home state. It really was one of those “meant to be” moments. I know it sounds corny, but what I like most about working here is that I feel like I’m really making a difference! I enjoy seeing and being a part of the whole drinking water cycle from watershed management and monitoring all the way to testing the treated water we are sending out to the public.

Q: What are your hobbies when you aren’t working?

A: Zumba fitness, fishing, reading, gardening, as well as spending time with my dog, cats, and boyfriend John.

Q: And mention what you do in “YP”

A: I’m currently helping the Southwest Section Chair of the American Water Works Association as the Arkansas liaison for the Young Professionals. We call ourselves the “YPs.” I created and currently manage the Southwest Section YP Facebook and LinkedIn pages. I am working to boost membership and have planned events in conjunction with the AWWA Student Chapter at U of A. I hope to work my way up to the national AWWA Young Professional Committee.

West Fork Cleanup Celebrates 10 years; 22,000 pounds of trash collected!



Over the past 10 years, several hundred volunteers in Northwest Arkansas have collected more than 22,000 pounds of trash from the West Fork of the White River, a tributary that flows to Beaver Lake, drinking water for one in seven Arkansans. In addition to music and lunch, volunteers enjoyed cake. In this

photo, Alli Chlapaty (center), Conservation Intern with Beaver Watershed Alliance, shows off the 10th Anniversary cake at the event, which was headquartered at Walker Park in Fayetteville on May 16. Joining her are (from left) Elecia Smith; Ronetta Francis, President, Phi Alpha Omega Chapter, Alpha Kappa Alpha Sorority, Inc.; Dana Francis, University of Arkansas student; Dot Neely, Education Coordinator, Beaver Water District; Raenita Thompson, sorority member; Jordan Francis, sorority member; and LaWanda Hughes, sorority member, Project Chairman. The sorority members chose the West Fork Cleanup as their activity for their Sorority's nationwide Community Impact Day, when members across the nation engaged in the "AKA 1908 Playground Initiative" to clean and revitalize neighborhood playgrounds and parks. These volunteers were just a few of the many who showed up that day to show support and clean up trash from several sites, including areas near Winslow, West Fork, and Greenland. More cleanups and volunteer activities may be found by visiting Beaver Watershed Alliance's webpage at beaverwatershedalliance.org.

Bowlin recognized with Watershed Guardian Award



Courtney Thomas (left) of the Beaver Watershed Alliance presented Rhiannon Bowlin of Fayetteville with a 2015 Watershed Guardian Award for the West Fork of the White River Watershed at the 10th Annual West Fork Watershed Cleanup held on May 16th. Bowlin, a Fayetteville resident, has volunteered at the annual cleanup event for the past eight years in a row. She also has served as a site leader for volunteers for several of those years. Rhiannon's efforts have directly led to the removal of hundreds of pounds of litter and bulky waste from the river and its tributaries. She has also attended several other area cleanups in the Beaver Lake Watershed over the past year, including the Middle Fork of the White River Cleanup and the War Eagle Creek Cleanup.

"Rhiannon is a true steward who takes action and responsibility for the health of our natural resources and encourages others to do the same, which is evident through her dedication to the West Fork Watershed Cleanup," said John Pennington, Executive Director of the Beaver Watershed Alliance. "She serves as an inspiration for her friends, family, and the community to join her in making a difference, and is truly deserving of the Watershed Guardian Award," he added.

The Watershed Guardian Award program is a stewardship recognition effort carried out by the BWA Awareness and Education Committee. The purpose is to recognize individuals, businesses, organizations, and agencies in the Beaver Watershed community who have demonstrated, supported, or achieved water quality protection efforts within the Beaver Lake Watershed. These awardees have gone above and beyond to work towards good water quality for our region and have served as an inspiration to those around them to follow their example.

Join us for the 10th Annual Secchi Day on Beaver Lake on Saturday, Aug. 15th!



On Aug. 25, 2006, the very first Secchi Day on Beaver Lake sampling event occurred. Bob Lewis, featured in the photo above (on right) joined us along with his friend, the late Estel Epsom, to learn how to use a Secchi disk to measure clarity or turbidity in the lake water and to gather water samples to be tested for chlorophyll a, total phosphorous and nitrate. Lewis is one of many dedicated volunteers who have taken time and used their own boats to help with this event annually.

Lewis, who's lived on Beaver Lake near Prairie Creek with his wife, MaryLou, since 1987, said the sampling event "is just something that needs to be done." He's participated in seven of the nine years and he plans to volunteer again this year.

"This is our 10th year," said Amy Wilson, Director of Public Affairs for Beaver Water District. "We've worked hard to develop a core group of lake volunteers who are collecting samples while also welcoming the general public to our event that focuses on the importance of Beaver Lake to the quality of life in Northwest Arkansas. We care about this water. It's the drinking water for one in seven Arkansans."

So, if you are looking for family fun at Beaver Lake this summer, look no farther!

Just head out to Prairie Creek Recreation Area on Beaver Lake from 9 a.m. to 1 p.m. on Saturday, Aug. 15th! Join in the fun that's planned for the 10th anniversary of Secchi Day on Beaver Lake. It's easy to find – just plug the address 9300 N. Park Road into your GPS – and you'll travel just a few miles east of Rogers off of Highway 12 in beautiful Northwest Arkansas to arrive at this beautiful park on the lake. Bring the kids, enjoy a free lunch, ice cream and cookies. Visit the mobile aquarium, test drive a kayak, participate in the scavenger hunt and win door prizes, use a microscope, interact

10th Annual Secchi Day on Beaver Lake
August 15, 2015

Schedule of Events:
 8:30am - 11:00am
 Prairie Creek Recreation Area
 Join us for water clarity, depth, temperature, Secchi disk depth, and collect water samples

9:00am - 10:00pm
 Prairie Creek Recreation Area
 Free lunch, ice cream, and cookies. Visit the mobile aquarium, test drive a kayak, participate in the scavenger hunt and win door prizes, use a microscope, interact

Sponsors:
 Cook's Natural Market, Marje Foods, Cabell's, Miland Dairy, Outdoor Cigs, Hog Radio, Commercial Audio Systems, Northwest Arkansas Democrat-Gazette, Sam's Club/Fayetteville, La Zeta Radio

Partners:
 USGS, NOAA, The Community, Beaver Water District, OZARKS WATER DISTRICT, ARKANSAS GAME AND FISH COMMISSION, UTA

Family Activities:
 Photo Contest, Kayak Test Drives, Lunch

For information:
www.bwdh2o.org

with live reptiles, make your own water testing device to take home, make it rain on the watershed, and see how water flows impact water quality in the lake. For information, visit bwdh2o.org.