



Beautiful Buffalo River Action Committee

27 July 2017

ADEQ, Commission Room

1:00-2:30 p.m.

Members Present: Becky Keogh (Arkansas Department of Environmental Quality, Director), Bruce Holland (Arkansas Natural Resources Commission, Director), Stephanie Williams (Arkansas Department of Health, Deputy Director for Public Health Programs) for Nathaniel Smith (Arkansas Department of Health, Director), Kane Webb (Arkansas Parks and Tourism, Director), Wes Ward (Arkansas Agriculture Department, Secretary of Agriculture), Chris Colclasure (Arkansas Game and Fish Commission, Assistant Deputy Director) for Jeff Crow (Arkansas Game and Fish Commission, Director), and Shelby Johnson (Arkansas Geographic Information Office, GIS Officer)

Members Absent: Nathaniel Smith (Arkansas Department of Health, Director) and Jeff Crow (Arkansas Game and Fish Commission, Director)

Invited Guests: Scott Simon (The Nature Conservancy in Arkansas, Director) and Jessie J. Green (White River Waterkeeper, Waterkeeper & Executive Director)

WELCOME AND AGENCY REPORT OUTS

Becky Keogh – Welcome

- Acknowledged Chris Colclasure is representing Arkansas Game and Fish Commission for Director Jeff Crow.
- Acknowledged Stephanie Williams is representing Arkansas Department of Health for Director Nate Smith.
- Recognized this is the third occasion to meet following the call of the governor to come together as agencies serving Arkansas. Noted our common goal of looking at the Buffalo

River Watershed and ensuring it is protected not only for future generations, but also for the use of the resources the watershed generates both to its community and to the state.

Bruce Holland – Arkansas Natural Resources Commission (ANRC) Report Out

- Noted ANRC’s big task in all of this is to oversee the Watershed Management Plan (WMP), which is ongoing, and we will give a report on the progress later in the meeting.

Wes Ward – Arkansas Agriculture Department (AAD) Report Out

- Thanked the committee for the opportunity to be here and participate in this action committee. Stated AAD’s update will be a collective of ongoing activities in the state.
- Reported that the state has started a feral hog eradication task force; Director Holland (ANRC), Parks & Tourism, Game & Fish, several others, and AAD are part of that task force. Noted the task force will certainly have implications for the Buffalo River and its watershed. We hope to find ways to work together with this action committee as well as that task force to find ways to resolve the feral hog issue throughout the state of Arkansas.

Chris Colclasure – Arkansas Game and Fish Commission (AGFC) Report Out

- Announced that AGFC has issued a purchase order for \$150,000 to Rural Services for AGFC’s contribution to the Unpaved Roads Program.
- Noted AGFC’s involvement in the feral hog task force and reported continued efforts to try to control the feral hogs in that general area.

Shelby Johnson – Arkansas Geographic Information Office (AR GIS) Report Out

- Acknowledged the role of AR GIS as primarily a supporting role to all of the lead agencies.
- Noted AR GIS took on the task of follow up analysis on unpaved roads in the Buffalo River Watershed.
- Reported there are 2518 miles of roads in the Buffalo River Watershed. Of those, 2007 are unpaved. That equates to 80% of the roads in the watershed being unpaved.

Note: This report is available on the BBRAC website. Link provided below.

<https://bbrac.arkansas.gov/pdfs/2017-bbrac-roads-report-arkansas-gis.pdf>

Kane Webb – Arkansas Parks and Tourism (APT) Report Out

- Stated that APT is also represented on the feral hog task force.
- Reported that there is still a lot of tourism in the Buffalo River; people are still attracted to that area and using it.

- Announced there will be well over a million and a half visitors to the state this year, thanks to the Buffalo National River.

Stephanie Williams – Arkansas Department of Health (ADH) Report Out

- Stated it is a pleasure to represent our director, Dr. Nate Smith today, and ADH is very pleased to be a part of this group.
- Announced ADH is working as part of the leadership for the governor’s Healthy Active Arkansas Initiative, which is the state plan to reduce obesity over the next ten years. As part of that state plan, there is an emphasis on healthy eating and agriculture, with opportunities for us to promote produce grown here in our state, as well as the promotion of physical activity and utilization of our state parks for folks to be active.

Becky Keogh – Arkansas Department of Environmental Quality (ADEQ) Report Out

- Asked Stephanie Williams and Chris Colclasure to convey the committee’s appreciation to Director Smith (ADH) and Director Crow (AGFC) for sending representation in their absence as well as their efforts on the committee.
- Reported that there are times throughout the year when river communities note algal blooms—some of those are not harmful, sometimes they are just a nuisance—but, sometimes they could be harmful. Due to public interest, and in an effort to answer questions, a workgroup was formed last year to determine if those blooms were naturally occurring or something potentially worth further investigation. In an effort to get responses out in a more coordinated fashion, the Arkansas Harmful Algal Bloom Workgroup was formed.
- Announced that this year, ADEQ is striving to add value to our services and support the algal bloom workgroup through the development of an update to ADEQ’s mobile app. ADEQ has a free mobile app available for download for both iPhone and Android users. The app was initially started as a way to get information about environmental conditions across the state. The beauty of the algal bloom reporting feature is that you can take a picture and send it anonymously, or you can identify yourself. The picture is geocoded to the specific location so that our response is more efficient. The app functionality has been increased to provide feedback to the agency as well as allow users to find recycling and other useful information. The algal bloom reporting function of the app is live for Android users, and soon to come for iPhone users. We ask that if you see a bloom, send us a picture of it. The image can then be filtered and sent to the appropriate members of the workgroup for review and assessment. If

you identify yourself, we can report back directly to you. If you choose to remain anonymous, we will post that report on our website in the complaints database. The ADEQ app received a national award, and was developed largely by Ryan Benefield while he was at our department.

- Announced the EPA Administrator was here in the state, and he informed the governor and me that EPA had taken action to approve Arkansas's 2016 list of impaired water bodies. That approval is significant in a number of ways. Although Arkansas has met the timelines of submitting an updated list every two years, this is the first approved list since 2008. We were pleased to see EPA step up and take action to bring the list current. The most significant thing about the update is that the list gives us information on how to prioritize our focus based on the most current data and assessments. As we have been submitting to the EPA over the years, we have received data to show that some of those streams were no longer impaired, yet they remained on the list. It is very important that those streams get removed from the list when the data show that they are no longer impaired. So, the removal of a number of streams from the list is a very significant outcome, because we want a list that is current as we allocate resources and investment dollars.
- Announced that the Assessment Methodology Stakeholder Workgroup completed their final meeting on July 20th. We will be putting a final draft Assessment Methodology out in the next few weeks for public comment. The Assessment Methodology is what we use to measure whether a stream is meeting its designated use in the state of Arkansas. This document outlines the assessment process we go through. It is a very technical document, and considerable credit should be given to the Office of Water Quality, Planning Branch staff, Sarah Clem and her team, who have been working on it. That will be coming out, and I encourage you to take a look at it. Look at it seriously, because these are the rules we follow when we assess data that will determine what streams go on or are removed from the list.
- Reported that seasonal monitoring within the Buffalo River Watershed is ongoing, and we will be able to give an update on that once we have a complete dataset to evaluate at the next meeting.
- Announced that ADEQ was made aware of an opportunity to move forward with new research within the Buffalo River Watershed. Funding has become available through USGS to support research and allow us meet the governor's directive to consider immediate

research needs in the watershed. The ANRC development of the Watershed Management Plan has begun to identify research, educational, and management needs. In support of those needs, we are happy to see that we do have some money available to move forward with research objectives.

- Stated the funding matched by USGS is up to \$20,000 for this fiscal year, with the hope that it would be funded again next year for more than \$20,000. Hopefully, each of us can look into our agency budgets, or perhaps we can identify funding outside of our agencies to find some matching funds to bring those federal dollars towards some immediate research needs. We are currently looking into what ADEQ can contribute, or how we can redirect some money to get most of that \$20,000 identified for this fiscal year. We would ask you to dig a little deep to see if you have some money you can set aside for the future fiscal year to contribute to this research project. I think this is an important action and progress that would be welcomed by the governor.
- Asked ADEQ staff if we have specifics on how the initial funding will be used. **Caleb Osborne** replied that we have some ideas, but they are dependent on if we get the complete match.
- Asked if ADEQ staff will bring forth recommendations to the committee for what the research project will be. **Sarah Clem** replied that the study design will be drawn from data gaps identified in the WMP.
- Stated that we can discuss the project in more detail once the WMP briefing has been presented.

EXECUTIVE DISCUSSION

Approval of 16 May 2017 Meeting Minutes – Becky Keogh

- Committee members were asked if there were any concerns or comments regarding the meeting minutes from May 16, 2017.
- **Bruce Holland** motioned to approve the minutes. **Kane Webb** seconded the motion. The minutes were unanimously approved with no discussion or questions.

Note: Meeting minutes are available on the BBRAC website. Link provided below.

<https://bbrac.arkansas.gov/pdfs/20170516-bbrac-minutes.pdf>

Approval of Fourth Quarter Meeting Date – Becky Keogh

- Indicated potential dates are presented in the agenda as options for the next meeting date. We were trying to avoid the holidays, so there are options mid-October and early November. We could potentially meet in late November, the week following Thanksgiving.
- Asked if there were any thoughts or discussion regarding the next meeting date.
- **Kane Webb** indicated he has a conflict with the October date.
- **Bruce Holland** suggested we may want to give consideration to the WMP update.
- **Becky Keogh** noted the committee's commitment to the governor's directive, which calls for a minimum of quarterly meeting dates, but we want to make sure that they are effective meetings. Waiting for updates on the WMP would be helpful.

Note: The committee agreed to work out the next meeting date through correspondence among the members.

Executive Subcommittee – Becky Keogh

- Noted we are approaching one year on the committee, and we owe the governor a status report.
- Proposed the formation of an Executive Subcommittee to help draft the report to the governor. We want to pull together what the team has discussed, what we have accomplished, and what recommendations the team has concluded. The members of this subcommittee could help form the agenda for the next meeting, and also help prepare a draft report for the committee to review at the next meeting.
- Recommended a facilitator to help work through the various goals of the governor through that report, so that by the end of the meeting, we will have a report that we can polish up and send off to him.
- Suggested committee members or their designated second could serve on this subcommittee.
- Recommended that the communications team may serve well as the Executive Subcommittee. We don't necessarily need two groups; perhaps that team is the right team to call on to accomplish this next step and bring that agenda back to us.
- **Becky Keogh** motioned to task the communications team with this assignment and rename them the Executive Subcommittee. **Bruce Holland** seconded the motion. The motion was unanimously approved with no discussion or questions.

Communications Team Update – Becky Keogh

- Reported that there had been a convening of the communications team via conference call on July 20, 2017. Discussions included how we can move forward with engaging the public more effectively and how we communicate as a team. Future meetings could include how we build our reporting format and generate our annual report to the governor. Asked Donnally Davis to report on the conference call.
- **Donnally Davis** reported that one of the priorities was to put together a website. We discussed the goals of the website and other potential agenda items for BBRAC meetings. We also looked at ways to include public participation as we move forward.
- Becky Keogh reported that the committee has been working up a template and content material for an arkansas.gov website—as opposed to our ADEQ website. There is now a contact email for BBRAC (contact@bbrac.arkansas.gov). This is hosted through the Department of Information Services (DIS) and being paid for by a small amount of our EPA funds. The website content material will include meeting materials and a mechanism for public input to be able to submit comments or reports. Once the website is ready, the Executive Subcommittee will bring it to the members of the committee for input and approval. Following that, Director Holland and I will sit down with the governor and review that with him before we go live. So, hopefully we can make that happen between now and the next meeting. In the meantime, if the public has any comments or input or would like to present to the committee, please feel free to use that email address to contact us. That input will be reviewed by the Executive Subcommittee and be put in front of us as an agenda item or proposal so we can make those decisions.
- Stated that another task the Executive Subcommittee will take on is the development of metrics for reporting to the governor. When we send you the demonstration, we will also send you the direct metrics which may serve as a template for the draft report. The metrics will focus on the primary goals of the action committee: education, economics and research. It's a little difficult to set metrics until we get through the watershed management plan, but if we can report to the governor on how the team has advanced over this last year, I think it will be helpful to put it in those terms. I expect that the report will fall out in a fairly succinct format like that.

- Asked if there are any thoughts for things to consider in the governor’s report. Asked if committee members were okay with the format. Members all nodded in agreement.
- Asked if there are any other executive business-type items that we need to consider today?
No response.

THE NATURE CONSERVANCY & BUFFALO RIVER FOUNDATION – PRIVATE LAND CONSERVATION FOR THE BUFFALO RIVER

Scott Simon

- Thanked the committee for inviting him to come back and discuss conservation easements and also introduce Council Rock Forest. Stated he is here with one of his colleagues, Jennifer Barnhouse, who is the new Director of Philanthropy and will be working with private landowners who make donations of land and easements. Stated he put this talk together with the Buffalo River Foundation and that Mike Mills is sorry he was not able to be here, but this talk covers the work of both of us.

What is the Buffalo River Foundation?

- The Buffalo River Foundation is a relatively new land trust, a non-profit organization, a practical, on-the-ground group of people whose mission is to conserve—for the public benefit—a variety of values for the Buffalo River.
- The Buffalo River Foundation is a volunteer organization, they have a volunteer board. The president is Allison Lee from Morningstar, a lawyer in northwest Arkansas. The vice president is Mike Mills from Ponca, and he is the owner of the Buffalo Outdoor Center.

What is a land trust?

- A land trust is a non-profit conservation organization: The Nature Conservancy is an example of one. A land trust accepts donated land or conservation easements, or acquires them and pays for them. Their work is done in partnership with private land owners.

What is a conservation easement?

- Land ownership can be considered a bundle of rights. A conservation easement essentially separates some of those rights to somebody else – in this case, a private organization: a land trust. Those rights have monetary value and they are appraisable.
- A land trust is an agreement, enforceable in law, and there is Arkansas legislation related to that.

- The document is flexible and is based on the landowner's goals and the goals of the conservation organization. Typical rights are related to timber: no clear cutting, no mining.
- The landowner still owns the property. They now have a co-owner with the conservation organization.

How does it benefit the landowner?

- It's a very personal decision. Whether land is used to generate income or for recreation, people want assurances that in the future, their land is going to be treated in a particular way.
- There are a variety of tax benefits for the donation of a conservation easement. It can help with state taxes. It is a gift, so it is tax deductible.
- Landowners receive assistance with land management.
- Tax incentives are significant. In 2015, congress amended the law and enhanced the benefits so the donors can a deduction in their taxes of up to fifty percent of their income. They can carry that forward for fifteen years. Qualified ranchers and farmers can deduct up to 100% of their income.
- The incentives are so strong because the benefits to the public are substantial.
- Improved water quality and wildlife habitat are other benefits.

What is the responsibility of the land trust?

- The IRS Code describes what kind of gifts and organizations qualify.
- The nonprofit land trust is responsible for monitoring that easement in perpetuity.
- The nonprofit land trust director or board chair needs to certify that the value the landowner is claiming is realistic and supported by an appraisal.
- Land trusts will often times put funds aside in an endowment so they can fulfill these obligations long term. This is part of the IRS audit of the land trust.
- Landowners will often make a cash donation in addition to the land donation to ensure the land trust is able to fulfill the landowner's vision for the property even after they have passed on.
- The Buffalo River Foundation has been very active in the last few years. They have about eight (8) conservation easements.
- TNC and BRF have worked on two of these properties together. *Note: A map detailing the approximate location of the conservation easements was provided in the presentation.*

Becky Keogh asked if there is a general monetary value or size of easement that the conservation trust is interested in. Is there a size that is too small or too big? Or is it more case by case?

Scott Simon replied that it usually depends on the goals of the organization. For the Buffalo River Foundation, they are interested in anything in the Buffalo at this stage in the growth of the organization. Some of the small ones could be really important based on where they are located. For example, one conservation easement is a cave; the cave entrance is only a few acres, but the easement is critically important for both water quality and bat habitat. TNC is similar in that we have easements that are a few acres and the largest easement in the state was developed by Chris Colclasure when he was with Arkansas Natural Heritage Commission, and that one is 16,000 acres. Most easements are worth 30-60% of the value at which they are appraised.

Council Rock Forest

- Land acquisition that the Buffalo River Foundation and The Nature Conservancy did together. It is located in Vendor Valley and encompasses most of Ricketts Mountain near Mt. Judea. It was purchased in November 2016. It is 1425 acres.
- It was sold by the Eliot family of Michigan. The children of Dr. Johan and Mrs. Frances Eliot wanted honor the conservation interests of their parents and sold the land to the conservation trust at a deep discount (\$491/acre).
- TNC pays property taxes on all lands in Arkansas and they own about 3500 acres in the Buffalo River Watershed.
- The land is beautiful and includes three or four miles of bluffs. It provides a lot of source water for Big Creek.
- The land provides habitat for endangered bats and other wildlife.
- Paleo-Indian petroglyphs and historic bluff shelters found here.
- Early settlers and pioneers used this land. The Campbell family started here.
- It is most important to us as a private organization that we are a good neighbor.
- Acknowledged the history of the use of the land through the Eliots and the pressures of recreational use on the Buffalo.
- We have held multiple meetings with members of the community to determine their wishes for the use of the property. We ask how they want to use the land, and how they don't want the land used.

- The neighbors and the recreational groups want the land to remain open for use.
- TNC will manage the land to improve habitat.

Kane Webb asked if there are still members of the Campbell family that are interested in that land.

Scott Simon replied that about a hundred members of the Campbell family live in Vendor Valley around the property. They still use the log cabin located on the easement.

Kane Webb asked if the Campbell family approached TNC. How did this all get started?

Scott Simon replied that the day following the closing on the property, he drove around and introduced himself to the neighbors. He delivered a letter explaining what they did. They went door to door for two days and got to meet everybody. People knew that the property was being sold—so there was some concern—but, once they realized that we wanted to be a good neighbor and there were opportunities, it was really fun. The legacy of the land and how they want the land to be treated in the future is what they wanted to ensure. In this case, the Eliots did that by selling it at a price the conservation trust could afford. In other cases, it's putting in a conservation easement.

Chris Colclasure asked if the BRF has any sort of criteria as far as prioritizing sites – will it be water quality driven, habitat driven?

Scott Simon replied that they do not yet. It is a relatively new organization. The one criterion that I've noticed they utilize is how much work it will take to develop the easement. Sometimes landowners will have very specific interests and goals, so it is more of a cost benefit analysis. There are no criteria purposefully so that BRF can learn what the landowners in the Buffalo River Watershed are interested in and what motivates them, and then they can start to refine the criteria. They will probably shift to water quality and then rare species.

Chris Colclasure asked if most of these easements are purchased or donated.

Scott Simon replied that they are all donated. All the ones they are working on now have been donated. The acquisitions we did - we worked on together to help further that Arkansas partnership conservation model.

PROJECT INITIATIVES WITHIN THE BUFFALOR RIVER WATERSHED

Jessie J. Green

- Introduced herself as the Executive Director and Waterkeeper for White River Waterkeeper. We are a 501(c)(3) nonprofit organization based here in Arkansas. We are members of the larger, international organization, Waterkeeper Alliance.
- The movement began in 1966 when a group of fishermen on the Hudson River came together to form a grass roots organization to address water quality issues.
- Waterkeeper Alliance was formed in 1999. There are now 300 Waterkeepers throughout the globe.
- Our positions are not focused simply on being environmentalists. The work we do is for the betterment of communities. It should be viewed as a fundamental human right to have access to swimmable, fishable, and drinkable waters. We dedicate ourselves to ensuring that is a reality.
- Protecting the environment for the health of others can be associated as a partisan issue. Sometimes being a Waterkeeper in a red state offers more hurdles than in a blue state. I thank you for inviting me here today because I think this is a really good sign that our state and our agency directors view protecting the Buffalo for its integrity as a non-partisan issue as well.
- Before I left ADEQ six months ago, I served as Senior Ecologist in the Water Quality Planning Branch. I tried to help facilitate a lot of BBRAC's efforts and protecting the integrity of the Buffalo. I am grateful for the opportunity to learn so much about the Buffalo River. White River Waterkeeper's work plan for the Buffalo will in many ways serve as case studies for how best to address issues throughout the bigger White River Watershed. The White River Watershed includes the Buffalo River and many multijurisdictional waters, which gives us opportunities to work with, learn from, and share successes with Missouri as well.
- The White River Watershed is nearly 28,000 square miles.
- Over 1000 stream miles in Arkansas designated as Outstanding Resource Waters.
- It provides endless opportunities to collaborate and develop partnerships and to work with public and private sectors to unite for our common goal to protect water quality.

Issues with Karst

- There are a lot of hurdles with the Buffalo River watershed being in a karst landscape. It makes it difficult to make assumptions associated with study designs and interpretations that are completely valid in non-karst settings. Assumptions go out the window due to the

interconnectedness between ground and surface water that allows for rapid transport of water and contaminants. Teasing apart and studying those anthropogenic impacts is extremely difficult.

- There is so much information that we now have for Big Creek that it is really useful for the rest of the landscape.
- Some of that information will help provide the context of why studies and assumptions are really difficult in karst. Out of the plethora of data that exist, some of this helps piece together and get a comprehensive look at the complex nature of karst hydrological regime in that area.
- It was a peer-reviewed article by Arkansas's own Van Brahana—a dye trace study—that resulted in an “ah-ha” moment. Again, assumptions often tend to go out the window when studying water quality impacts in these environments - and that is reiterated in these dye trace studies. Combining those data with other information we have in the watershed helps us do a better job evaluating impacts.
- Georeferenced dye trace map in ArcGIS. Green dot near the bottom reflects the dye injection site in this study. The red dots are locations where the dye was picked up. You can see the direction of subsurface movement—which is going every direction—most notably, up-gradient. Big Creek flows north, so the bottom of the map reflects upstream.
- The BCRET sampling sites (yellow squares) were overlaid on the dye trace study map. The yellow square at the bottom represents the most upstream BCRET sampling location, which is generally thought of as the control in most study designs. The dye trace study shows that due to the complex nature of the karst hydrological regime, we can't make the assumption that upstream is in fact a control. We have confirmation that there is subsurface movement upstream.

Upcoming Buffalo River Projects

SWIM GUIDE PROGRAM & BACTERIAL MONITORING

- Thanks in large part to a generous donation by Buffalo River Watershed Alliance, we were able to purchase the most costly piece of equipment, an IDEXX Quanti-tray Sealer. We have a few thousand to go as far as raising money to cover our monitoring goals for the next primary contact season.

- We will be integrating our bacteria monitoring data with the swim guide program, which is hosted by a member of the Waterkeeper Alliance. Our focus will be mainly *E. coli* monitoring, but swim beach advisories can be for any reason, including flooding, other natural disasters, a spill, or harmful algae bloom outbreaks.
- The public is provided with an easy to interpret map available on the Swim Guide website and mobile app. This provides the public with up-to-date information.
- We will take public input from our membership regarding sampling locations. We will train volunteers on proper water quality collection techniques and samples will be processed for quantification of bacteria present using IDEXX methods and equipment in our Jasper lab.
- We will be prioritizing sampling locations along the Buffalo River. Our projected sampling regime will entail weekly monitoring throughout the summer months. Samples collected on a Thursday will be made available to the public on Friday.
- Waterkeeper organizations partner with state and federal agencies as well as other entities within their state. Partnering with ADEQ and ADH – two agencies that already have bacteria monitoring programs – would be a really great way to extend coverage in the state of those data.
- I would like to sit down with you to figure out sampling schedules and locations so we aren't duplicating efforts as well as proper reporting mechanisms so we can properly upload those data onto that platform. This could also provide a nice metric for BBRAC.

MICROBIAL SOURCE TRACKING

- Identifying the source of the pathogens is an important component that will help us identify the most necessitated remediation actions so that conservation measures can be taken to address those sources of fecal contamination.
- Overall costs are pretty expensive.
- Source Molecular quoted \$175 per sample for testing four or more sources, and upwards of \$375 per sample for testing for one source.
- Based on the assumptions of testing for three sources per sample with a minimum of ten sampling sites and a minimum of five sampling events, the estimated cost is roughly \$30,000, not including travel, supplies, or anything else.
- Limitations include access to a negative twenty degree Celsius freezer.
- Concurrent *E. coli* sampling will support a weight of evidence approach.

SEPTIC TANK REMEDIATION PROGRAM

- We don't have the data to support the level of failing septic tanks in the Buffalo River Watershed.
- This program will help pinpoint hotspots and specific target areas for septic tank education.
- Hopefully, we can then identify a funding source to help people repair and replace failing tanks.
- Septic tank experts agree that the biggest need is for people to have access to no- or low-interest loans.

IMAGE DATABASE

- No matter the source of nutrient enrichment, photographic evidence is extremely useful in evaluating the extent of nutrient impairment on a waterbody.
- As of now, with the exception of Beaver Lake, Arkansas does not have numeric nutrient criteria. We do have narrative nutrient criteria that are outlined in Reg. 2. While these are basically useless for discharge limitations for permits, they can be used to assess impairment based on captured visual observation.
- The state needs a mechanism for reporting georeferenced, photographic information to help support attainment decisions.
- This approach could also be used to compile images for a host of different water quality concerns (siltation, failing unpaved roads, etc.).
- We will be using a program called OpenDataKit. This is a free and open-source set of tools. It allows organizations to manage mobile data collected by users.

White River Waterkeeper Advocacy

- Our organization is based on advocacy, education, and research.
- If given the opportunity to sit in on any of the stakeholder workgroups affecting water quality within the White River Watershed, we would very much like to do so. Whether that's Antidegradation, Triennial Review of Reg.2, or Buffalo River Watershed Management Plan meetings, I would like the opportunity to talk to some of the public there.

Becky Keogh commented that we realize this is an information age, and our challenge is to figure out systems to make wise choices based on that information that we collect. It sounds like you have a good start on your program, and I wish you the best. We do have a number of

stakeholder opportunities, so I encourage you to stay in touch with our agency and the other agencies where you would like to have input or participate.

Chris Colclasure asked if Jessie Green had developed her approach for recruiting volunteers to take your samples and do your image data.

Jessie J. Green replied no. We are still in the process of developing that and relocating to Jasper.

Wes Ward asked if there is any coordination with the University of Arkansas, Division of Agriculture and the work they've been doing up there.

Jessie J. Green replied no. It will be next year before we are able to begin collecting samples.

Becky Keogh responded they are doing a lot of good research; I encourage you to reach out to them. I also encourage you to work with our Department of Health, especially as you look into your swim beach program. Dr. Smith spoke about the benefits of getting that information to the public and the limitations of sampling a river versus a beach. Getting more information about sources that might contribute in future occurrences is always helpful.

Stephanie Williams commented that the presentation was very nice, and ADH would be happy to sit down and discuss opportunities to collaborate.

Jessie J. Green replied that would be great!

BUFFALO RIVER WATERSHED MANAGEMENT PLAN UPDATE

Ryan Benefield

- Reported that the third stakeholder meeting was held on June 8th. That was the third of four planned meetings. Forty individuals attended that represented agriculture, conservation, recreations, state and federal entities, and other interest groups.
- Reported that the goals of the meeting were to discuss the additional analysis of the targeted watersheds, discuss targeted loads and management practices, and receive more stakeholder input.
- Stated that the consultant looked at a series of indices to identify which subwatersheds should be targeted. This is not exclusionary; we are not saying other tributaries or watersheds are not open for projects. But, when looking at a watershed management plan, you want to focus your effort where you can see the biggest improvement to the water quality.

- Stated we did not gather new information. They looked at information that was out there including water quality trends over the last thirty years, pollutant loading, geology, and NRCS resource concerns.
- Announced they identified five creeks as targeted, priority watersheds:
 - Mill Creek
 - Tomahawk Creek
 - Calf Creek
 - Brush Creek
 - Lower Big Creek
- Reported that they went back and looked at a couple other factors, and those five tributaries still popped out. Again, we are not going to only focus on those five, but these are the priority ones that if you want to make the biggest, quickest impact, then these are the five watersheds you may want to start.
- Stated they also came up with three goals:
 - Keep pollutants out of the water both surface and groundwater
 - Minimize stream bank and bed disturbance
 - Leave no trace behind
- Reported they looked at a series of pollutants in those five targeted watersheds over the last thirty years and set some rough targets; how much of a reduction would we like to see in those pollutants?
- Stated they also looked at what kinds of management practices would accomplish these reductions. All along, we've received input from stakeholders on things they thought might be beneficial. They took those suggestions and looked at what types of reductions and what kind of costs would we see if we implemented these practices.
- Announced there is one more planned, contracted public meeting that we believe that will happen in October. The goal of that meeting would be to talk about draft recommendations for the watershed management plan.
- Stated that at some point when we get close to that draft plan would be the time when we would like to come and present that to you (BBRAC). At that point, we would have FTN come and present that to you.

- Announced that ANRC also contracted FTN to do a watershed model; A SWAT model. There are a lot of different hydrologic models, but we chose a Soil and Water Assessment Tool (SWAT). We think the WMP and the SWAT will marry together nicely. We didn't get started at the same time as the WMP, but we are hoping they will meet up at the end of the project.

Kane Webb asked what kind of questions and feedback they've been getting.

Ryan Benefield replied that at the end of the meeting summary document is a list of questions. Some included questions about dissolved oxygen, what streams were chosen, the Marble Falls treatment plant, and funding assistance. One thing we've stressed all along is the WMP is based on voluntary practices only. We are not looking at permitted entities at all, but our practices are voluntary. Typically, those come with some sort of 319 cost share from ANRC or EQUIP assistance through NRCS. The goal of the WMP is really to get voluntary adoption of best management practices.

Audience member asked if they are looking for any feedback from stakeholders as to the watershed management plan.

Bruce Holland replied absolutely. That's what the process is about – interactions within the watershed and having those stakeholders come forward with their ideas and their thoughts and present that to FTN, the group that's doing the engineering work.

Audience member asked if the panel would like any feedback today.

Bruce Holland Replied, without objection. *BBRAC members were offered the opportunity to respond.*

Becky Keogh replied I appreciate that; we have tried to encourage folks to work through the watershed management plan process to keep the meetings going, but we appreciate your thoughts.

Audience member responded that he thinks there is a missing component of this, that purpose of BBRAC. Steve Blumreich introduced himself; I am the president of the Friends of the North Fork and White Rivers. I am a retired CPA; I understand numbers. One of the concerns I have is that the numbers that have been put together for the water management plan, as you know, result in middle Big Creek being excluded. We believe that part of that is because of the datasets that were used for comparison. The datasets, as Ryan mentioned, went back thirty years. The most recent one was ten years; however, the issue – the big elephant in the room, if I might use that

analogy – has only been in existence for about two and a half years. So, if you use two years of 2.6 billion gallons of liquid hog waste being sprayed on five or six hundred acres around middle Big Creek and factor that in on an average basis and compare it to the other datasets, that will result in that creek looking better than it really perhaps is. So, I just ask you to keep that in mind when you see this data. Thank you.

Ryan Benefield replied that no creek was excluded. The main stem and every tributary were included, and we are going to encourage projects anywhere we can get reductions and improve water quality. The goal was that if you make everything a priority, then nothing is. So, we looked at some targeted watersheds that FTN has identified and said, if you are going to put a dollar in, then you might get better reductions by putting a dollar in this watershed, than putting a dollar in this watershed. So, that's the goal; if you want the biggest bang for your buck, you might want to focus on these watersheds. The WMP process encourages projects in any watershed that would get improvement.

Becky Keogh replied thank you for that input, and we'll make sure that your concerns are addressed with the consultant. At this point, due to time, we are going to call off input from the audience. *Addressed a different audience member* – Asked if you can keep this to thirty seconds or less, sir?

Audience member responded yes ma'am. We think the project is great. We think what they are doing is very good. We are worried about the public being misled by the creeks that were chosen. Because the latency of the data and the kind of data that were used came up with a certain result, we don't want the public to be misled. So, when you publish the results and how these things were chosen, it would be very helpful if you included some of the factors that went in to the choice you made. (*Brian Thompson, Buffalo River Watershed Alliance*)

Becky Keogh responded that we will make sure that gets back to the consultant as well as to the review group that looks at this report. I mentioned earlier that as we look at this accumulation of datasets, it is very important that we make these meaningful to the public and we don't confuse the public with data. We need to make sure we reference enough information to know how the data should be used and not be used. I will keep that in mind.

Becky Keogh stated that concludes the formal agenda. Asked if there are any other items of business that we want for today. We will be in touch with you about meeting dates. It looks like we are leaning towards a November date.