Arkansas' 2nd Biennial Statewide Forum on Forestry and Drinking Water Forest and Water Works; Connecting Working Forests and Clean Drinking Water

DeGray Resort State Park Bismarck, AR November 7 and 8, 2017

> Final Report Revised December 14, 2017

Arkansas' Forest and Drinking Water Steering Committee hosted the second Statewide Forum on Forestry and Drinking Water on November 7 and 8, 2017 at the DeGray Resort State Park near Bismarck, Arkansas. A total of 65 professionals came together for a day and a half of learning, networking and brainstorming regarding how to advance the groups vision of "Healthy Managed Forests and Clean Drinking Water". Participants in the forum included private forest land owners, forest industry professionals, drinking water utility managers, conservation organizations, state and federal foresters, and state natural resource management agency personnel. The goals of the forum were to:

- 1. Generate interest in a South-Central Arkansas Project,
- 2. Recap the goals and accomplishments from the first statewide forum held in 2015,
- 3. Provide examples of how linkages between forests and water utilities are being made, and
- 4. Continue to improve communications between the Forest and Water sectors.

Background and History of the Southeastern Partnership for Forests and Water

Arkansas' 2nd Biennial Statewide Forum on Forestry and Drinking Water is a follow up to the 1st Arkansas Forests and Drinking Water Forum held at Camp Mitchell on Petit Jean Mountain May 26 and 27, 2015. This Forum and the 2015 forum are initiated and supported by the Southeastern Partnership for Forests and Water, an initiative funded by the US Forest Service and the US Endowment for Forestry and Communities to strengthen regional, state and local watershed collaboration focused on the connection between forests and drinking water. The Partnership secured a US Forest Service Landscape Scale Restoration Grant in 2016 to continue the work of the Arkansas Forests and Drinking Water Committee and to support this Forum.

The Southeastern Partnership for Forests and Water initiative recognizes that healthy forests benefit drinking water quality and quantity. Stewarding, enhancing and maintaining healthy forests in key Southeastern drinking water source watersheds is necessary due to increasing population growth and urbanization in the Southeast, which is resulting in forest fragmentation, forest losses (conversion to other land uses), and a decline in forest health. The overall purpose of the Partnership is to maintain healthy watersheds that provide safe, reliable drinking water, healthy forests, and strong local and regional economies. Ultimately, the goals are for drinking water utilities/customers, the forestry sector, businesses and corporations to value forest landowners and forest lands for source water protection,

and for forestry, drinking water and conservation sectors to collaborate on long-term watershed stewardship throughout the region.

The goals of the Southeastern Partnership for Forests and Water are to:

- Help maintain or expand healthy forests in drinking water source watersheds;
- Maintain and improve water quality and quantity through healthy forest retention and stewardship;
- Initiate and develop working relationships among water utilities, the forestry sector, state and local agencies, Rural Water Associations, and conservation groups;
- Identify watersheds and initiatives that have high potential for cooperative forest conservation and long-term stewardship;
- Explore pilot projects to implement creative long-term stewardship strategies such as Payment for Watershed Services and forestry best management practices that demonstrate the interdependence of healthy forests and drinking water.

One of the most relevant action items coming from the 1st Arkansas Forum on Forestry and Drinking Water was that the sectors should 'continue the conversation'. In early 2017, The Arkansas Forestry Commission convened the Arkansas Forest and Drinking Water Steering Committee to continue the conversation and to oversee use of the new funding.

Arkansas' Second Statewide Forum on Forestry and Drinking Water was an effort of the Arkansas Forestry and Drinking Water Steering Committee and was made possible by the sub-award grant mentioned above and the following sponsors:

- Arkansas Chapter of the American Water Resources Association,
- Beaver Water District
- Central Arkansas Water
- Green Bay Packaging Company

Special thanks are also given to the Arkansas Forestry Association, Arkansas Forestry Commission, Arkansas Department of Health, and Dr. Hal Leichty for assistance in planning and conducting the forum.

2017 Arkansas Forum

Mr. Joe Fox, Arkansas State Forester, initiated the forum by welcoming participants and summarizing the interdependence of drinking water and forestry in Arkansas. Dr. Bob Morgan than provided a background for the forum and the Arkansas Forest and Drinking Water Steering Committee which was formed following the first Statewide Forum in 2015. Ms. Jane Hurley then challenged the participants to imagine one day without water. The forum then transitioned to a session discussing current effective programs to protect drinking water through good forest management. Ms. Raven Lawson from Central Arkansas Water updated the group on efforts conducted by the utility in the Lake Maumelle watershed. Mr. John Pennington, executive director of the Beaver Watershed Alliance provided discussion of private landowner outreach being conducted by the Alliance in the Beaver Lake watershed, the source water for Beaver Water District and northwest Arkansas. Together, the two efforts contribute to protecting the drinking water of over ¼ of all Arkansans. Mr. Scott Meek from Green Bay Packaging Company followed the water presentations with discussion of the Sustainable Forestry Initiative.

A second learning session was conducted that explored current hot issues in drinking water including harmful algal blooms (HABS) and sedimentation of water supplies followed by the forest industries approach to addressing those issues. A strategic effort was made to not present problems without solutions. Dr. Brian Haggard, director of Arkansas' Water Resources Center presented information on HABS. Dr. Jami Nettles then presented Weyerhaeuser's forestry practices related to nutrient management in response. Ms. Jane Hurley from Central Arkansas Water then provided discussion of the impact that sediment in source water makes on drinking water treatment processes. Mr. Clay Knighton from the Arkansas Field Office of The Nature Conservancy provided a review of their unpaved roads management program. Unpaved roads are one of the most significant sources of excess sediment in streams and lakes in Arkansas. All seven presenters then returned to the podium for a panel discussion.

An essential part of building effective collaborative projects is getting to know the people who can provide necessary skills to carry out the project. Networking is always one of the most valuable components of this type of forum. Following an afternoon of presentations, the group retired to a reception and dinner where groups were allowed to mix and get to know each other. During dinner, Dr. Don Bragg from the United States Forest Service provided a brief history of forestry in Arkansas and an even briefer glimpse of forestry futures. Dr. Bragg's presentation set the stage for Wednesday's discussions.

Wednesday morning, the forum started with an address by Mr. Scott Simon, director of the Arkansas Field Office of The Nature Conservancy, on the value of collaboration. Mr. Simon covered examples of successful collaborative projects in Arkansas, keys to an effective partnership, and what makes a good partner. The presentation set the forum up for breakouts sessions consisting of facilitated discussion of how to advance the steering committee's mission. Breakouts were organized by geographic region including central Arkansas, southwest Arkansas, northwest Arkansas, and Groundwater source areas.

The breakout groups were asked to address the following questions:

- 1) Who are the major players in Forestry and Water in your region?
- 2) Do those players communicate? What are the limitations and challenges to communication?
- 3) Who do we want to bring together?
- 4) How well do those people/groups understand each other?
- 5) What are some specific issues or opportunities for collaboration in your region?
- 6) Is there a specific Champion for the collaboration?
- 7) What immediate actions can take place to improve forestry and protect water quality?
- 8) What resources are needed to make things happen?

Additional questions related to groundwater were:

- 9) How does forestry impact ground water systems?
- 10) How can we address remote groundwater recharge areas?

Each group addressed these questions in their own manner.

Central Arkansas: The focus was on two specific project areas, Hot Springs and Brewer Lake.

The City of Hot Springs owns approximately 2000 acres of forested land around lakes Dillon, Sanderson and Bethel. Lake Dillon is one of the City's supply lakes. This property has potential to be a long-term demonstration project with respect to forest management and water quality. Total Organic Carbon concentration in the water resource is currently high. Potential to reduce the concentration through proper management exists. Potential partners include the City, Hot Springs National Park, Arkansas Forestry Commission, The Nature Conservancy and several silent partners. Immediate actions:

- 1) Develop a forest road management plan,
- 2) Develop a forest management plan,
- 3) Establish a water quality monitoring program,
- 4) Follow up with a Board retreat or management workshop

The Hot Springs demo project around the city-owned lakes has many ancillary benefits, but really shines as an opportunity to exhibit proper forestry management's effect on water quality. The immediate action items of development of a forestry management plan and initiating a water quality monitoring program are the central focus on the project. These actions should be guided by engaged partners with a shared vision to ensure success.

Monty Ledbetter, director of Utilities Administration, will help champion the project.

Brewer Lake is the main water supply for Conway Corporation (Conway, Arkansas' water supplier) and the Conway County Regional Water Distribution District. There is opportunity for outreach to private forest owners regarding improving management in the watershed. The Scroggins Tree Farm in the watershed is also a good possibility as a site for a Discovery Farm project on forestry, one of the steering committee's goals. Potential partners in the area include the US Army Corps of Engineers, Arkansas Department of Health, Arkansas Game and Fish Commission, US Fish and Wildlife Service, Faulkner County Conservation District. The Arkansas Grazing Lands Coalition is currently working in the area with a landowner outreach program.

The opportunities for advancement in water quality abound with the Brewer Lake project. This project will employ our outreach capabilities as most of the watershed is privately held. We should first look to the larger, more active landowners such as Scroggins Tree Farm to help us foster a deeper understanding of issues. Next, we could drive interest in remaining landowners showing the economic benefits of managed forests, grasslands, and soil on water quality. Finally, we could develop workshops to share best management practices for healthy forests and clean water.

Immediate actions:

- 1) Connect Dr. Michael Daniels, director of Arkansas' Discovery Farm program with the Scoggins Tree Farm.
- 2) Meet with Conway Corp. about potential of pooling resources for Brewer Lake (Raven Lawson lead).

Also discussed was a potential collaboration on a larger-scale project for critical pollinator species. Potential exists for "no-mow" areas along highway and railroad right of ways, natural gas pipeline easements and cooperation with a NRCS and Audubon Grant to encourage minority landowners to plant old prairie areas with native seed.

Southwest Arkansas

Recommendations focused on expanding outreach including:

- 1) Increase interaction between forest management personnel and county judges-With the initiation of the unpaved roads program, judges and forestry personnel may find some common ground with regard to maintaining and improving unpaved roads which could reduce impacts of roads on water quality Example: Where ownership of forests land and county road locations coincide, perhaps additional areas of the land adjacent to the county road right of way could be used to install structures to reduce erosion and delivery of sediment to waterbodies.
- 2) Improved communication between of forest and water utility personnel in the Southwest region of the state. -Justification-Central and Northwest Arkansas have utilities actively participating in forest practices or with forest management personnel.

As part of forest certification (Forest Stewardship Council) Domtar in Magnolia has the Four State Timberland Owners Association, they have an annual meeting where a forestry/utility duo could talk. There is supposedly more than 500 landowners and 500,00 acres in the association.

Also, a Sustainable Forestry Initiative implementation committee meeting might be a good venue. Scott Meeks is the chair in January.

Actions

- a) Reach out to the SW and SE directors of AWW&WEA or SW, SE, or WC directors of ARWA (or break out session at annual meeting) to have a utility person and local forestry person (both in the Arkansas Forest and Drinking Water committee) to attend district meetings and give a presentation of AFDW or the potential for collaboration. The goal is to introduce the program and look for additional collaborators for the AFDW.
- b) Reach out to Southwest Area of Arkansas Association of Conservation Districts or individual county directors to have some utility representative and local forestry personnel to introduce the AFDW.
- c) Find a local water utility person who would be willing to talk at a local chapter meeting of the Society of American Foresters.
- d) As part of forest certification (Forest Stewardship Council) Domtar in Magnolia has the Four State Timberland Owners Association, they have an annual meeting where a forestry/utility duo could talk. There is supposedly more than 500 landowners and 500,00 acres in the association.
- e) Also, a Sustainable Forestry Initiative implementation committee meeting might be a good venue. Scott Meeks is the chair in January.
- 3) Would inclusion of recreational interests with those of utility and forestry have a benefit to the collaboration of AFDW?

a) One suggestion from Arkansas Parks and Recreation was that inclusion of AFDW members with small recreational projects in communities in Southwest AR might be able to improve water quality associated with these projects and improve awareness of the relationships among land management-water quality-drinking water.

Northwest Arkansas:

The Northwest Arkansas group had an outstanding discussion based on the questions provided for the breakout.

Major players in NW Arkansas:

- Private landowners
- US Army Corps of Engineers (consensus was that USACOE were handcuffed by their regulations and possibly had restrictions on their ability to collaborate),
- State Agencies; Arkansas Natural Resources Commission, Arkansas Game and Fish Commission, Arkansas Highway and Transportation Department,
- Cities and Counties
- Walton Family Foundation
- 501© organizations including Northwest Arkansas Regional Land Trust, Beaver Watershed Alliance, Ozark Water Watch, Illinois River Watershed Partnership, Arkansas Canoe Club, Quail organizations, Arkansas Forestry Association, The Nature Conservancy, Ducks Unlimited,
- Policy makers; Farm Bureau, Open Space Committee,
- Corporations; Tyson, Ozarks Electric
- Funding organizations; Walton Family Foundation, Natural Resources Conservation Service, Environmental Protection Agency, Farm Services Agency, Arkansas Natural Resources Commission and Arkansas Game and Fish Commission.

Intergroup communication: The consensus was that many folks are already working together and they do communicate but there are some gaps including:

- Federal Agencies seem to be reluctant to interact. This behavior is trickling down to the local level.
- Frequently agency staff are on board, but administration is reluctant to cooperate, we are not communicating with the right people at times,

Roadblocks to collaboration:

- Interagency cultural divide,
- Conflicting management approaches,
- Lack of manpower,
- Getting top level buy-in,
- Lack of interagency communication.

Who to bring to the table:

- Land managers,
- Recreationists (Ozark Highlands Trail, Off Highway Vehicle groups),

- Groups with complementary interests,
- Farm Bureau and watershed managers,
- Ozark Water Watch,
- Small land owners,
- Consultants for small landowners,
- Motivated students,
- Poultry producers,
- Forest managers,
- Pasture managers,
- Adjacent states (OK and MO),
- Non-traditional friends.

Recommended immediate actions for NW Arkansas included:

- Development of a Piney Bay Alliance,
- Conducting a regional forum to include Arkansas, Missouri and Oklahoma,
- Website applicable across state for "central data share".
- Conducting a media campaign to expand public awareness,
- Reach out to other entities (plant a seed),
- Combine regional water and forest needs, invite them to a conference,
- Reach out to poultry operations.

Resources needed: An outreach coordinator.

Groundwater recommendations were:

- Reach out to operators of water systems using groundwater as their source through presentations at the Arkansas Water Works & Water Environment Federation District meetings,
- Sharing of data on Karst areas including GIS files,
- Work on getting the word out,
- Help people understand the regulatory framework related to groundwater.

The forum concluded with a tour of forestry best management practices as practiced by the Molpus Woodlands Group.

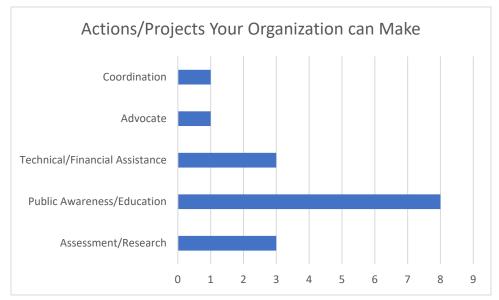
The registration packet for the forum included an informal survey of participants. While not scientifically valid in any way, the results are of interest. Questions asked included:

- What immediate actions/projects could be undertaken in your region to benefit both forests and drinking water?
- What immediate actions/projects can you or your organization take to help implement the actions/projects listed above?
- What help do you or your organization need to fully achieve your forest or drinking water protection efforts?
- In your opinion, how is water quality in your region affected by active forest management?

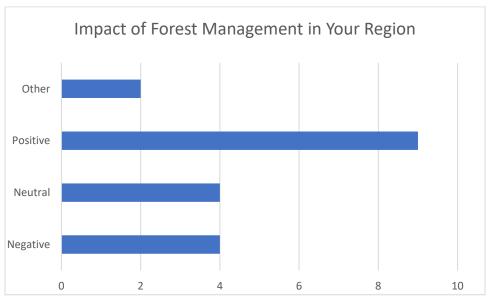
- What are the top concerns with regards to forest management in your area? Please select up to three from the list below:
 - o Afford recreation opportunities for landowners and/or the public;
 - Ensure an economic return on forest landowner investment;
 - Increase productivity of forests;
 - Maintain water quality in streams through forest land;
 - o Provide timber and fiber as a resource for manufacturing and job creation;
 - Provide wildlife habitat;
 - o Restore and/or maintain healthy forests

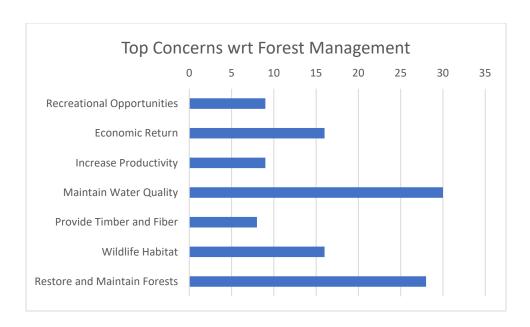
The results can be summarized in the following graphs:











A complete list of responses to questions 1-4 is provided in appendix 1.

Appendix 1 Survey Responses, Questions 1 – 4

What immediate actions/projects could be undertaken in your region to benefit both forests and drinking water?

Preliminary surveys and baseline ecological data for riparian zones on private and public lands

Development of watershed management plans through collaborative efforts of stakeholders.

In my opinion, there is not an understanding by land owners that a managed forest will better protect water quality.

Initiate public awareness of drinking water issues.

Educate public on importance of managed timberlands in watersheds.

Increase acres under management in drinking water watersheds.

Tours to educate the different sectors involved.

Creating streamlined mechanisms for private landowners to learn about and access funding for BMPs and other programs.

A project or event or action in the Beaver Lake Watershed that is associated with the Sustainable Forestry Initiative.

Incentives (monetary & social) to support non-industrial forest owners to consider water quality as an important component of their forest management plans.

Provide technical and financial assistance to landowners for protecting riparian forests. Initiatives to provide financial assistance to landowners for management activities Increased funding for best management practices, conservation easements, prescribed burning, timber stand improvement, dirt road management

Joint Chief's Projects
Installation of forest BMPs through Farm Bill Programs
Educational programs through local conservation districts
We have received funding for a NRCS Project in the Lake Maumelle Watershed

Private land timber stand improvement. Creation of secondary successional habitat along field edges to change the ecology of the soils. More education about discharge and ways to mitigate or affordable alternatives for control of discharge. Intensive, PAID EMPLOYEE nutrient management plan implementation for CAFO's. Improvement of cattle systems located near riparian areas.

Restoration forested riparian corridors in pastures.

Forest stand improvements and selective harvests to restore/create woodland conditions. restorations and management, including of plants and streambanks to retain soil and filter water before reentry into surface water bodies

Stream and River Restoration Projects, both rural and urban

Rural septic system improvements.

Stream bank restoration / runoff mitigation.

More prescribe burning of the forest.

We need a standardized method of evaluating BMPs so that issues can be resolved before they significantly degrade water quality. While these data need to be utilized by agencies to document and provide incentives to those diligent in maintaining adequate BMPs, these data need to be publicly available so private individuals wishing to enter into forestry contracts on their property can consult to determine best players.

Make developers follow the same best management practices recommended for forestry.

What immediate actions/projects can you or your organization take to help implement the actions/projects listed above?

Biological species inventory and preliminary water quality assessments.

I would like to be involved in discussions that lead to research projects and enhance educational opportunities for college students. While research takes funding to implement, there are smaller scale projects that do not require much investment in which we can participate with student groups. I work with another faculty member where we are establishing a service learning course, which could involve student projects, including Honors students.

Try to get information out to the public and land owners. One problem in SW MO, most drinking water is from wells, so we cannot say we are protecting drinking water....

Forest improvement, farm system improvements. Public outreach events. Urban runoff and discharge analysis and possible mitigation or alternative implementation.

Participate in education and outreach activities.

Provide educational and support services to these landowners.

We will hold a variety of tasks including outreach meetings and partnership creation with neighboring conservation districts and landowner groups Provide support to local agencies for outreach to riparian landowners.

provide information to landowners, provide financial and technical assistance for landowners, work with water utilities to to invest in maintaining high quality source water through land treatment.

Educate people about the positive effects of installing stream side management zones and implementing voluntary best management practices.

Work with partners we already have and perhaps an event or action that's already planned to enhance that event or action.

Reach out to water treatment entities and facilities with information tying healthy watersheds to decreased costs of water treatment.

We are the primary agency providing both TA and FA for these projects.

The Partners for Fish and Wildlife Program provides technical and cost share assistance for habitat restoration and enhancement that benefits at-risk and listed species on private lands. Any projects that address these species will also benefit drinking water sources.

Fund a third party to take on that responsibility.

Advocate for the objectives of the National Best Management Practices Program to be carried out in their entirety. NGOs and organizations like WRW would be able to provide independent reviews, which would inevitably praise and shame good and bad players, respectively. We have to first start with shining a light on failings if we intend to effectively address them. Train interested parties and volunteers in how to evaluate BMP implementation and effectiveness. Participate

Encouraging prospective recipients of LWCF grants (distributed through the Outdoor Recreation Grants Program, a subdivision of Arkansas State Parks) to include restoration and mitigation elements in grant applications.

Apply for RCPP with NRCS

Design and implementation

What help do you or your organization need to fully achieve your forest or drinking water protection efforts?

Funding and volunteers/workers.

A more knowledgeable understanding about what actions can be taken. We have hopes to apply for grants to improve soil and water quality in our county. We have already received funding for two large conservation practice initiatives from the NRCS.

Organizing a conference in the Branson area.

Partnering opportunities

Provide volunteers and host workshops.

Work to elevate this approach on a national platform.

More internal staff resources.

Meetings and outreach to landowners.

None - from forestry sector as state BMPS are utilized.

Data that support decreased treatment costs in healthy watersheds.

We need help from conservation partners to inform and educate the public that this assistance is available, contribute their expertise to designing and implementing projects, and whenever possible manpower or funds to supplement and cost share on projects.

Additional funding to provide extension & outreach efforts.

Funding for landowner incentives to encourage conservation practices
Increased funding for landowner assistance, sustained educational support from specialists, increased forest management and wildlife management plan productivity, increased ability for prescribed burns.

financial

Partner with organizations for a concerted effort to identify stakeholders and develop and action plan for reaching them.

Coordinated action between conservation agencies, water utilities, and NGOs to work on common objectives.

In your opinion, how is water quality in your region affected by active forest management?

high sediment load due to logging operations (logging roads, run off, removal of riparian vegetation). Poor management practices on private lands. Yes

It can improve. The large amount of forest management is pine plantations. Oak/hickory timber is managed, but not on a statistically significant scale (to my knowledge, a study could show otherwise)

Altered sediment transport, channel shape, and flashiness caused by poorly designed road crossings. Other than observing the obvious, I'm not aware of any studies within the watershed that have effectively evaluated water quality effects of active forest management practices. But I haven't been actively searching for this information, so I would be delighted to learn from any experts more informed on this topic.

Water quality can be temporarily reduced when harvesting and forest management do not adhere to good management practices. The majority of forests in the region utilize BMPs to reduce potential impacts of forest management on water quality.

Very little water quality impacts from active forest management.

More impacts from passive management, no management, or mismanagement. Water quality is improved by forest management but degraded by roads required for forest management.

NW Arkansas has little forest management. So the impact of management is small. Poorly managed forest harvest may have significant impact.

I feel very strongly that a well managed forest will improve water quality of our streams, rivers and lakes.

Maintains water quality as water moves through the forest.

Active forest management that is done in a sustainable manner using BMPs positively affects water quality. Active forest management using BMPs is done in a manner that prevents or reduces erosion and promotes development of a robust herbaceous understory.

It's improved!

Well managed forests and consistent BMPs have the potential to positively influence drinking water quality.

Management and retention of forested land is one of the greatest factors for sustained high quality source water.

Positive

Should be a positive improvement and protection

It is greatly improved.

I am currently learning more about forest management in order to develop a better-informed opinion, and as such am quite looking forward to this conference.

Currently the watershed is in pristine condition and we hope to continue that effort

Appendix 2 Participants:

First			
Name:	Last Name:	Email Address:	Phone:
Doug	Akin	doug.akin@arkansas.gov	501-225-1598
Holly	Anderson	hollylanderson430@gmail.com	501-944-7310
Adrian	Baber	adrian.baber@arkansas.gov	501-682-3967
Pablo	Bacon	pabacon@saumag.edu	870-235-5192
Bobby	Ballinger	robert.ballinger@mail.house.gov	479-667-0075
Don	Bragg	dbragg@fs.fed.us	870-367-3465
Max	Braswell	mbraswell@arkforests.org	501-374-2441
Danny	Carder	dcarder@cityhs.net	501-321-6773
David	Casaletto	dcasaletto@ozarkswaterwatch.org	417-739-4100
Amy	Cowling	amyacowling@hotmail.com	918-645-0379
Mike	Daniels	mdaniels@uaex.edu	501-671-2281
Helen	Denniston	helen.denniston@ar.usda.gov	501-301-3134
			870-722-8986 x-
Brad	Dreyer	bdreyer@molpus.com	101
Canton	Ford	canton.ford@ar.nacdnet.net	870-421-0125
Bob	Fowler	bob.fowler@arkansas.gov	501-683-0577
Joe	Fox	joe.fox@arkansas.gov	501-225-1598
Benjamin	Gilley	benjamin.gilley@arkansas.gov	501-2084-232
Jessie	Green	jessie@whiteriverwaterkeeper.org	501-915-2746
Michael	Gregory		501 223 6300
Brian	Haggard	Haggard@UARK.edu	479 575 2879
Arnold	Hameister	arnold.hameister@arkansas.gov	
Jane	Hurley	jane.hurley@carkw.com	501-223-1577
Mark	Karnes		
Becky	Keogh	keogh@adeq.state.ar.us	501-682-0959
Tim	Kibe		
Clay	Knighten	cknighten@tnc.org	479-216-6758
Joseph	Krystofik	joe_krystofik@fws.gov	501-513-4479
Raven	Lawson	raven.lawson@carkw.com	501-940-6129
Monty	Ledbetter	mledbetter@cityhs.net	501-321-6880
John	Lester	john.lester@clarksvillelightwater.com	479-754-3148
Hal	Liechty	liechty@uamont.edu	870-460-5747
Martha	Manley	mdmanley71@gmail.com	870-768-5069
Craig	Marquardt	craig.marquardt@ag.ok.gov	918.465.2056
John	McAlpine	jmcalpine@kingwoodforestry.com	870-367-8567
James	McCarty	jmccarty@bwdh2o.org	479-756-3651
Matt	McNair	matt.mcnair@arkansas.gov	501-682-1227
Scott	Meek	smeek@gbp.com	501-354-2461
Jack	Meredith		

Roger	Miller	miller@adeq.ar.us	501 682 0665
Rick	Monk	rgmonk@fs.fed.us	479-964-7513
Rebecca	Montgomery		501-823-1729
Debbie	Moreland	debbiepinreal@aol.com	501-904-5575
Robert	Morgan	ramorganllc@gmail.com	479-422-5594
Brandon	Nelson	brandon.n@cebridge.net	479-637-3181
Jami	Nettles	jami.nettles@weyerhaeuser.com	662-245-5226
Richard	Norwood	richard.norwood@arkansas.gov	501-661-2067
Caleb	Osborne	osbornec@adeq.state.ar.us	501-682-0637
John	Pennington	john@beaverwatershedalliance.org	479-750-8007
			337-463-9700 x-
Joe	Pokorny	jpokorny@molpus.com	102
Charles	Purtle	charjanepurtle@yahoo.com	870-887-5662
David	Quattlebaum	arwadq@yahoo.com	501-350-6078
Matthew	Rich	mrich@bwdh2o.org	479-756-3651
Darcia	Routh	darcia.routh@arkansas.gov	501-661-2856
Bryan	Rupar	bryan.rupar@arkansas.gov	501-682-1587
Mary	Savin	msavin@uark.edu	479-575-5740
Don	Seale		
Scott	Simon	ssimon@tnc.org	501-663-6699
Regine	Skelton	regine.skelton@arkansas.gov	
Keith	Stokes		
Edward	Swaim	edward.swaim@arkansas.gov	501-231-3332
Matt	VanEps	vaneps@watershedconservation.org	479-444-1916
Wes	Ward	wes.ward@aad.ar.gov	870-897-0952
Amy	Wilson	awilson@bwdh2o.org	479-263-4584
Jim	Wise	wise@adeq.ar.us	501 682 0663
Don	Zimmerman	daz@arml.org	501-978-6100