



The conservation easement donated by Jim & Liz Smith will protect 3/4 mile of the pristine North Fork River, while also enabling two emergency escapes during rapid rises in the river level. (photo Steve Wilson)

New Conservation Easement Protects Stretch of North Fork River

...Friends awards Lifetime Membership for the action

Jim and Liz Smith, owners of River Ridge Inn on the North Fork River, will receive a lifetime membership in *Friends of the Rivers*. *Friends* is awarding this membership to honor them for an action they took which will assure a long stretch of that beautiful river remains in its current, undeveloped, state.

For those familiar with the river, the permanently-protected area begins near the Ackerman access and goes all the way to the Smith's home, adjacent to the River Ridge Inn.

The stretch is mostly wooded, and the river bank is some of the most beautiful along that crystal-clear stream.

Passing It Forward

Said Jim Smith, "We asked ourselves, how can we preserve this stretch of the river, not just for our lifetimes but forever - how do we help keep it as precious for generations to come as it is now?"

After looking at options, the Smiths protected about three-fourths mile of river frontage - which they own - by setting up a permanent "conservation easement" along that entire stretch of water.

Said Jane Darr, *Friends'* President, "So many of us appreciate the natural state of our land and environment, and we want to pass it forward. The Smiths' use of a Conservation Easement is a great way to secure the land's future while enjoying it today."

Preserving the Land's Future

The easement is a land preservation agreement which restricts development, land use, and other activities. The easement allowed the Smith's to retain ownership of the property, and to sell or heir the property in the future. Easement donors can sometimes realize tax advantages from the donation.

Side-Benefit: Safety

The Smiths chose the Arkansas Game and Fish Commission as the steward of their easement. Because of their generous donation, this land will not be developed further, but instead will remain wild. There will be no new houses or lodges on this section of the river. The river will remain a place that is more remote than house-lined rivers.

A side-benefit of the easement: the AGFC will develop two emergency exits from the river, to help the dangerous situations when the river rises rapidly and fishers need to get out quickly. Before, there was little escape.

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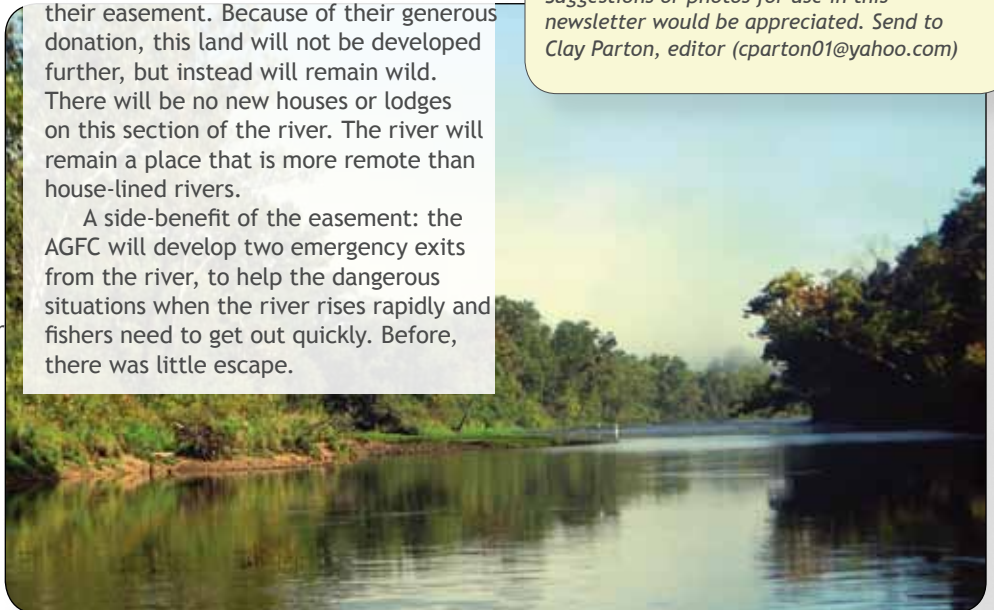
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Suggestions or photos for use in this newsletter would be appreciated. Send to Clay Parton, editor (cparton01@yahoo.com)



RiverReport

Drinking Water: Study Projects Varying – But Significant – Impacts

...Depending on IZARD County Frac-Sand Mining Approaches

There's an old Ozarks saying: "You never miss the water 'til the well goes dry."

With multiple frac-sand mines planned for IZARD County, Friends has appeared before the Pollution Control and Ecology Commission for months. A follow up meeting with Randy Young, Commissioner and Director of the Arkansas Natural Resources Commission found a task force was already gathering existing information to assess the potential impact on the availability of drinking water for IZARD County residents.

On September 15th, the Council received a report completed by ANRC geologists and a representative the US Geological Survey (USGS).

The study predicts municipal and private wells could see major drops in available water levels in the vicinity of the mines' wells and, over the long term, in the aquifer itself, depending upon the number of mines and their approach to sand processing.

Almost nine-tenths of IZARD County's 13,249 residents rely upon municipal water wells for both their health and their economy. Further, almost half of the private wells which provide water for the remaining residents are located within 5 miles of proposed frac-sand mines in the county.

Several mines are planned for IZARD County, due to the presence of ideal sand formations there.

Two surface mining permits have already been approved by ADEQ, and others are in the planning stages along the area's outcrop belt which covers 10% of IZARD County.

Aquifer Not Unlimited

The authors of the study noted water levels in the Ozark aquifer in Arkansas during the past 40 years have shown minimal draw-down. One well in IZARD County showed an annual decline of just over 1 foot per year.

However, they said, a greater water demand in the growing population centers of Missouri, Kansas and Oklahoma have shown "cones of depression," with noted draw-downs in their region of the Ozark

aquifer where various forms of mining are present.

The implication: the aquifer is not unlimited.

Water-Intensive Operation

Washing newly-mined sand uses enormous quantities of water.

"One of the planned processing facilities initially proposed drawing as much as 380,000 gallons of fresh water per day from the aquifer," said Jerry Weber, a Friends board member and nearby resident. "We needed to be sure our drinking water is not interrupted."

Weber noted the company has since proposed the use of surface water from a nearby spring instead, and that potential negative

effects on the downstream flow are under evaluation.

He said initial estimates are that this spring and the downstream water flows would not be affected. Further, he noted, the company is investigating higher use of reclaimed waters from the washing operation because of the raised concerns about water usage.

Efficiency Matters

The ANRC aquifer study suggests two significantly different impacts to the "Ozarks Aquifer," based upon two distinct approaches to the operation of frac-sand mines. One way uses much less water through a more-efficient washing technology.

However, the study predicts both approaches have the potential for significant consequences to the availability of drinking water.

Five sand mines drawing all their water from the aquifer without any reclamation, and using the less efficient approach, would require six times the water currently used by all the IZARD County municipalities combined, said the study.

Mines which use more efficient technology require far less water.

According to the authors, even the more-efficient washing method could

result in a drop in water level of 14 feet in about two years -- and 18 feet in nine years—for those municipal or domestic wells located within five miles of a mine's "pumping well."

However, if a mine used the less-efficient method, then the study's predicted water-level drop could be 32 feet in about two years, and 39 feet in nine years.

The authors said springs, streams, and pumping depth could be affected. Shallow domestic wells, they said, would be especially vulnerable to water-level declines. If the water table drops beneath the outcropping of a spring and natural pressure goes down, the spring will go dry. As wells drop, utility bills increase to pump water.

Study Limitations

The authors used the very limited water data from IZARD County wells, the estimates from mining operations, and a water-model possibly applicable to our Ozark karst topography.

Weber noted that the study's limitations mean we cannot say for certain the extent that the aquifer and/or local wells would be damaged.

"Given the uncertainties in the aquifer itself, the accuracy of using a model meant for southern Arkansas geological makeup, and the unknown number of mining operations and their water sources, we need to be more certain," Weber said.

Next?

Said Weber, "We can't say from this one study that these new frac-sand mining operations would affect the aquifer's ability to continue to support the water needs for the area, but we can say that ANRC and other state agencies must take the initiative to insure this new industry's operations will not affect the long term water needs of the region."

Weber added, "Given the study's unknowns, further funding for investigation is warranted so we may reach solid conclusions on the future of this aquifer. We need a comprehensive aquifer study, including an evaluation of the applicability of the ground water model to the Ozark Aquifer."

The study's authors advised all agencies and commissions involved with natural resources to take a prudent view of the proposed mining operations.

One mine now proposes the use of surface water instead, thus possibly reducing negative impact.

89% of IZARD County residents rely upon municipal wells for their drinking water, and half of private wells are located within five miles of proposed mines.

Water levels could drop between 18 and 39 feet within five miles of a mine's pumping well...

RiverReport

Frack-Drilling Chemicals To Become Public Information

... Arkansas Oil and Gas Commission Adopts New Rules

Editor's Note: compiled from media reports

Exactly what are the hazards of using hydraulic-fracturing for gas-drilling in the Fayetteville Shale? Soon, we will know a little more about the possibilities for damage -- even if we don't have the complete picture yet.

The Arkansas Oil and Gas Commission, in their December meeting, voted to require companies to reveal the specific names and concentrations of the chemicals used during so-called "fracking." That information would become public through the commission's website.

As importantly, the rule also requires operators to prove well casings can withstand pressure and won't leak -- before starting the fracking process for a well.

The rule is effective January 15th.

Suspected Water Contamination

So-called "frack-drilling" chemicals have been a strong suspect in water well contamination where the method has been used in other states. In graphic examples shown in movie clips, water flowing from kitchen sinks could be lit with a match.

The "fracking" process uses millions of gallons of water, mixed with chemicals and sand. This mixture is pumped at high pressure thousands of feet underground to create fractures in the shale -- and thus release trapped natural gas.

Residents of the Fayetteville Shale region have been vocal in their concerns about possible groundwater contamination from the fracking fluid. They have cited experiences in Pennsylvania and other states, where residents' water became severely contaminated.

A variety of chemicals have turned up in those other states, including some very toxic substances. No conclusive link has yet been proven.

State and Federal Action

Drilling companies mostly have been reluctant to release the information about chemicals used in the fracking process, calling it proprietary information.

Halliburton was subpoenaed after failing to voluntarily meet EPA's requests for information needed for a congressionally mandated hydraulic fracturing study to investigate the potential adverse impacts of the practice on drinking water and public health.

As the federal government has taken an interest in the issue, so are states.

Wyoming passed a measure earlier this year; they require well operators to disclose all chemicals used during the fracking process. Other states are reportedly considering similar policies, and Congress is considering legislation on the issue.

Arkansas is the second state to require public disclosure of fracking chemicals.

ADEQ Okays Gravel Mine Near Banks of Crooked Creek

Jim Stevens, the Director of Arkansas Department of Environmental Quality's (ADEQ's) Surface Mining and Reclamation Division, approved on October 6 an application by Guy King and Sons, Incorporated, to operate an open-cut gravel mine in Marion County, very near the banks of Crooked Creek.

"Our board was very disappointed that ADEQ issued this permit. We had expressed serious concerns about the proposed mine's effects upon one of the nation's best smallmouth streams, but the officials at ADEQ chose to ignore those concerns," said *Friends* Board Member Ben Levin.

Although *Friends* has traditionally not been opposed to open-cut mines (but remains opposed to stream-bed mining), *Friends* did express concerns to ADEQ about this particular application.

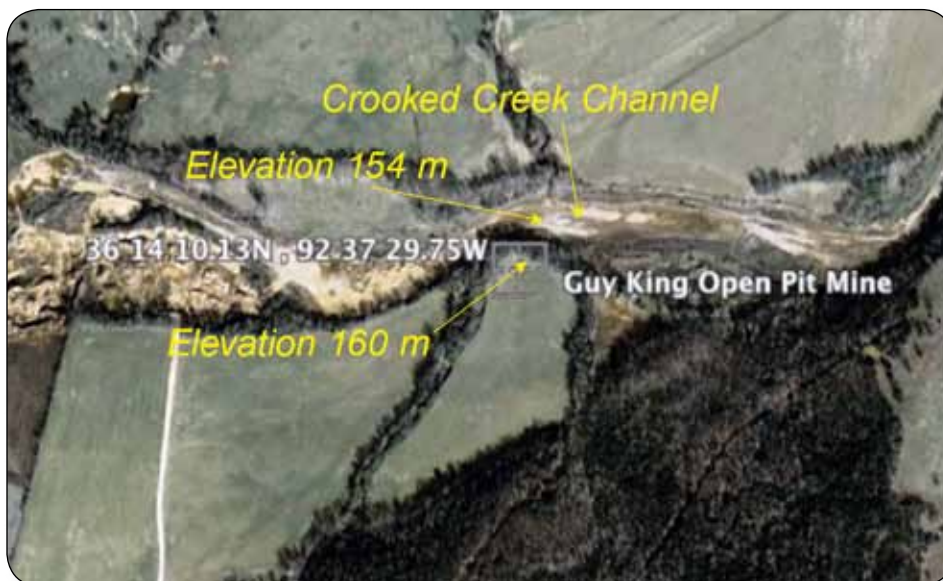
Friends told ADEQ in its written comments about the application:

- The proposed mine could easily be within the 100-year flood plain, thus leading to flooding of the mine, and its possible washout into the stream (Friends also suggested the flood plain itself may need to be re-evaluated based upon recent years' climate conditions);
- The depth of the proposed gravel mine could apparently go below the nearby streambed, causing a diversion of stream water into the mine itself;
- Chronic low-flow of the section of stream near the proposed mine could be made worse by the operation of a mine so near the stream;

Friends also cited the applicant's history of repeated violations of ADEQ regulations, each involving failure to maintain buffer zones to protect surrounding property.

The elevation of the mine at its surface is only six meters above the stream's bed. There have been many occasions over the previous 25-35 years when Crooked Creek rose 20 feet or more - often in a span of a day. Thus, *Friends* remains concerned that this mine, when operational, may likely flood and result in additional "braiding" of Crooked Creek.

Crooked Creek has been recognized as one of the United States' premier smallmouth bass streams. It has been a destination fishing stream since the 1960's or before.



This Google-Earth aerial view of the permitted mine area shows the proximity to the stream, and the similar elevations of the mine itself to the stream-bed. Thus, *Friends* concern about flooding and buffer-zones.

RiverReport

Fly-Fishing Group Makes Large Donation to Watershed Defense Fund

...says "We want these waters protected."

The Kansas City based Heart of America Fly Fishers has donated \$1,000 to Friends' Watershed Defense Fund.

"I can't tell you how proud we were to receive this contribution: it means the club has confidence that we will use their money wisely for the preservation of these rivers," said Jane Darr, President of Friends.

Ron Carruthers, who is HOAFF's treasurer, told Darr, "We consider the White and the North Fork to be part of

our 'Home Waters.' Our club members come often to fish both rivers, and we want to see them protected and preserved to remain the way they are today - some truly great rivers with clean water and healthy fish."

HOAFF is affiliated with the Federation of Fly Fishers, and the club sponsors fly-tying and fly-fishing classes, and holds regular group fishing trips to their favorite waters.

The Watershed Defense Fund

This fund provides the financial support to retain the qualified scientific and legal assistance necessary to go toe-to-toe in court, if required, to protect the rivers.

How to Donate:

- Our secure website: go to www.friendsoftherivers.org, and follow the red link.
- By mail: send a check payable to "Friends Watershed Defense Fund" to our address (PO Box 61, Mountain Home, AR 72654).



The annual AWAG watershed conference in Mountain View brought together people from all across Arkansas.

AWAG Annual Meeting in Mountain View Focuses on the Middle White River Watershed

The 2010 biennial Arkansas Watershed Advisory Group (AWAG) meeting became, according to Friends President Jane Darr, an arena where people came together around a common cause.

"We all got to form and tighten partnerships with others who care about water," said Darr following the conference.

Chad Pregracke keyed the meeting. Pregracke is known as the founder of America's only industrial strength river clean-up organization." Pregracke founded *Living Lands & Waters*, which had a vision to clean up the Mississippi River.

Arkansas Department of Environmental Quality (ADEQ) Director Teresa Marks updated participants regarding Arkansas' waters, and Michael Overbay, who is the U.S. Environmental Protection Agency's Region Six Ground Water Center Coordinator, reviewed EPA's national study on hydraulic fracturing.

Earth-Shaking Event...

But there was more excitement: a small earthquake.

"I just wanted you to know what an earthshaking conference y'all put together," said Scott Branyan to an AWAG staff member. Branyan is a Friends member who attended the conference. He observed a definite rumble in the building at the exact time later reported by USGS to be a 3.9 magnitude earthquake (1:06 pm November 20, centered near Guy).

Added Branyan, "This was a fine conference. I really enjoyed it and learned a lot. And what a great networking opportunity!"

Building Stronger Watershed Organizations...

ADEQ's Watershed Outreach and Education Staff and AWAG partners designed the three-day conference, held in Mountain View at the Folk Center November 18-20, to "help make the community more informed about the water resources of the state."

"ADEQ's AWAG team really deserves a pat on the back for putting this together so well. The speakers were high-energy, and there was good humor and excitement. There is so much education going on all over the state, involving a myriad of ideas, for every age group and every stakeholder," Darr said.

AWAG is a group representing almost 60 agencies and organizations which care about the protection of Arkansas' watersheds. This was AWAG's fifth biennial conference (held every two years), which highlighted the Middle White River Watershed in pre-conference workshops. The training offered was useful to anyone living in Arkansas and the surrounding region.

"The watershed conference helps develop stronger, more sustainable watershed organizations," said a spokesperson for ADEQ.

Friends' poster was honored "Best of Show" in the Community section of the conference's poster display.

RiverReport

Reflections: A Cool, Sparkling Break From Summer's Stifling Heat

by Barbara Carlson

Sometimes when you live in a place, you forget the value of what surrounds you because it is always just "there".

But we have here an oasis, a place of peace, a natural treasure to be protected and enjoyed.

On scorching hot summer days like we've had this past summer, I slow down. I find myself sitting quietly on our porch, just enjoying the abundant life that surrounds our home in the woods.

Some days that quiet time leads my thoughts back to one of my favorite memories - our first kayak float on Piney Creek.

What is a "Creek"?

To many newcomers, the word "creek" conjures up a vision of a trickle of water over rocks, with some small pools - maybe a few minnows and turtles - charming and sweet.

But anyone who knows Piney Creek in Izard County knows it is far from that vision. Piney is big enough to float, offering shelter to small mouth bass and rainbow trout, and teeming with surprises at every turn. Piney is simply awesome.

Clear and Silent

Several years ago, after we settled into our new home, we took our kayaks into the Piney, to explore. The minute we pushed away from the sandy shore and quietly settled in to float downstream, I noticed two things. First, the amazing clarity of the water, and second, the sweet silence of only nature-sounds.

Originally from suburban Chicago, I had never - not in my entire life- seen water so clear. I could look down and see the

bottom of the creek. Fish, both big and small, were swimming in front of my eyes.

I found myself smiling at the pure joy of seeing such clear water and all the aquatic life it revealed.

Kayaking is a quiet way of moving along in the water and as we drifted silently downstream, I could hear no man-made noise! Lots of nature-noises to be sure -insects and birds and of course the breeze in the trees. But being surrounded by nature-noise as opposed to mechanical and human noise...what a revelation!

We drifted past ancient trees and huge boulders, and then we turned a corner in the creek - and before us was a bluff that made us stop and stare - right here on "our" little creek.

The coolness of that little shower, the silence of the creek, the clarity of the water and all the life underneath made it feel like a slice of heaven.

...Barbara Carlson

A shower under a bluff...

It jugged up 30 feet up from the creek, and was covered with tiny growing plants and flowers. Water dripping downward off that bluff offered us a cool, refreshing shower, as we drifted under it in our kayak on that summer day.

The coolness of that little shower, the silence of the creek, the clarity of the water and all the life underneath made it feel like a slice of heaven.

Now, whenever we have company, we take folks to kayak this stretch of Piney, so they can appreciate the amazing bounty of the area where we live. And we spend time on our treasured creek as often as we can.

As a matter of fact, I think I'll head to my kayak and the Piney right now!



Top: unknown
Middle: Barbara Carlson
Bottom: Gay Vekovius



RiverReport

Sponsor a Friend of the Rivers !

Your paid membership in *Friends* is so important. The larger and more diverse our member base, the more impact we can have on policy-making.

Currently membership dues are our sole financial source for undertaking educational and policy initiatives.

Each membership includes a printed copy of our quarterly newsletter, alerts regarding conservation issues in the state or region and means to partner with other citizens like you who love these streams.

Join either online at our website (friendsoftherivers.org), or use the form below. *We need you!*

BS Golf Course and Kelly Ott Fined \$21,963 After 6,350 Fish Killed

Operators of a Bull Shoals golf course are being fined a total of \$21,963 following a chemical spill in a small tributary of the White River that runs through the golf course and into the river.

The golf course itself borders the White River, immediately downstream from Bull Shoals Dam.

First, the Arkansas Department of Environmental Quality (ADEQ) fined the Rivercliff Golf Course, and Kelly Ott, \$19,200 for damages caused by what the agency called an intentional chemical spill.

Second, the Arkansas Game and Fish Commission (AGFC) fined the golf course

\$2,363.

Third, the Arkansas State Plant Board fined Ott \$200 for improperly releasing pesticide, and \$200 for failure to use proper Personal Protective Equipment. (The Board regulates licenses for pest control applicators.)

Public Report Began Investigation

After a July 26 fish kill was reported to AGFC, ADEQ and AGFC investigators determined over 15 gallons of the pesticide Chlorpyrifos E-Pro 4 had been poured onto the ground near the small creek, and had then entered the small tributary.

This restricted-use pesticide is highly toxic to freshwater fish and invertebrates.

Kelly Ott, son of owner Jerry Ott, told Bull Shoals Police Department he intentionally pulled the tank's drain plug, and drained the remaining mixture onto the ground near the creek. He said he did not know it would cause fish in the creek to die.

AGFC recorded 6,350 dead fish, 642 dead crayfish and 4 dead water snakes. These were all collected to remove them from the food chain.

Little Effect on White River

According to investigators, most of the pesticide collected in a small pond, and never actually entered the White River. There was reportedly no significant impact to the river's trout fishery.

Join Friends of the North Fork & White Rivers

Name (please print) _____

Address _____

City, State, Zip _____

Home or Cell Phone numbers _____

E-Mail address (for electronic news) _____

Membership Levels - (Membership dues and any donations are tax-deductible)

- Individual Annual Membership - \$25.00
- Family Annual Membership - \$35.00
- Partnership Annual Membership - \$100.00
- Life Membership - \$500.00
- Business/Organizational Membership - \$50.00
- Donation (\$ _____) - Donations are appreciated!

Mail to Friends of the North Fork and White Rivers PO Box 61, Mountain Home, AR 72654

Signature/Date: _____

ADDRESS CORRECTION REQUESTED

Friends of the North Fork and White Rivers, Inc. is an Arkansas non-profit organization -- 501(c)(3) -- devoted to creating an ongoing dialogue where individuals, groups, and government agencies can work together to conserve, restore and enhance these beautiful rivers.

PO Box 61
Mtn. Home, AR 72654

