

Responsiveness Summary to Comments Concerning Arkansas's Draft 2012 303(d) List

The Arkansas Department of Environmental Quality (ADEQ) appreciates all of those individuals and entities who submitted comments concerning the draft 2012 Impaired Waters List (303(d) list). ADEQ would like to reiterate that this most recent request for public comments was for the draft 2012 List of Impaired Waterbodies (303(d) list). Several comments were received addressing other ADEQ documents or issues, such as Regulation No. 2, that are not open to public comment at this time. ADEQ encourages the authors to re-submit those comments when those documents or issues are opened for public review and comment. Comments were received from the following individuals and/or entities:

Ms. Alice B. Andrews The Ozark Society Arkansas Conservation Coalition Email address only	Ms. Debbie Doss Arkansas Canoe Club Arkansas Conservation Coalition 5 Sycamore Drive Conway, Arkansas 72032	Honorable James Norton Boone County Judge 100 N. Main Street, Suite 300 Harrison, AR 72601
Mr. James Baker Email address only	Mr. Gene Dunaway P. O. Box 500 Mountain View, AR 72650	Mr. Greg Manry Email address only
Mr. Mike Bender, PE Public Works Director City of Bentonville 305 SW A Street Bentonville, AR 72712	Ms. Cathleen Grossman Environmental Specialist Water & Ecological Resource Services American Electric Power PO Box 660164 Dallas, TX 75266-0164	Mr. Wade W. Phillips, PE Director of Public Works City of Harrison P.O. Box 1715 Harrison, AR 72602
Mr. Vince Blubaugh, Principal GBMc & Associates 219 Brown Lane Bryant, AR 72022	Ms. Shannon Hensley Van Buren County Oil and Gas Advisory Board 2644 Gravesville Cut Off Rd. Damascus, AR 72039	Mr. Ed Brocksmith Ms. Denise Deason-Toyne President, Save the Illinois River, Inc. 24369 E. 757 Rd. Tahlequah, OK 74464-1949
Honorable Warren Campbell Newton County Judge PO Box 435 Jasper, AR 72641	Mr. Tom E. Kimmons, Director Shirley Community Development Corp., Email Address Only	Mr. Peyton Rose 2644 Gravesville Cut Off Rd. Damascus, AR 72039
Ms. Shellie Chard-McClary, Director, Water Quality Division Oklahoma Department of Environmental Quality P.O. Box 1677 Oklahoma City, OK 73101-1677	Mr. Jim Malcolm, Vice President ftn & Associates Ltd. 3 Innwood Circle, Suite 220 Little Rock, AR 72211-2449	Mr. Jeff Stone, PE Director, Engineering Section Arkansas Department of Health 4815 West Markham Street Little Rock, AR 72205-3867
Ms. Jane E. Darr, President Friends of the North Fork and White Rivers P. O. Box 61 Mountain Home, Ar 72654	Ms. Dina Nash Environmental Co-chair Central AR League of Women Voters 4624 Kenyon Dr. Little Rock, AR 72205	Ms. Frieda L. Schroder Friend of the Rivers 544 Northpoint Mountain Home, AR 72653
	23 Citizens echoing the requests and comments of Boone County Judge James Norton	Mr. Evan A. Teague, P.E. Environmental Specialist Arkansas Farm Bureau P.O. Box 31 Little Rock, Ar 72203

Introduction: Development of the 303(d) list

In general, the assessment of water quality data considers the Environmental Protection Agency's (EPA) most current 305(b) reporting and 303(d) listing requirements and guidance following the percent method. In addition, ADEQ follows the specific requirements of 40 C.F.R. §§ 130.7 and 130.8. The criteria within this assessment methodology are utilized to make decisions about attainment of water quality standards for a given waterbody or waterbody segment. Monitoring data is assessed based upon the frequency, duration, and/or magnitude of water quality standard exceedances.

A biennial report on the condition of the state's waters is prepared by ADEQ as per the "Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act July 29, 2005," and subsequent updates. Waters are evaluated in terms of whether their assigned water quality standards, as delineated in the Arkansas Pollution Control and Ecology Commission's Regulation No. 2, are being attained.

The primary data used in the evaluations are generated as part of ADEQ's water quality monitoring activities described in the "State of Arkansas's Water Quality Monitoring and Assessment Program." In addition, pursuant to 40 C.F.R. §130.7(b)(5), ADEQ will assemble and evaluate all existing and readily available water quality data and information.

State and federal agencies and other entities that collect water quality data are solicited to aid ADEQ in its evaluation of the State's waters. All data submitted to ADEQ will be considered. However, the data must represent actual annual ambient conditions, as described below; have been collected and analyzed under a quality-assurance/quality-control protocol equivalent to or more stringent than that of ADEQ or the USGS; have been analyzed pursuant to the rules outlined in the State Environmental Laboratory Certification Program Act, Ark. Code Ann. § 8-2-201 et seq.; be reported in standard units recommended in the relevant approved method; be accompanied by precise sample site location(s) data, preferably latitude and longitude in either decimal degrees or degrees, minutes, seconds; be received in either an Excel spreadsheet or compatible format; and have been collected within the period of record.

The data set must be spatially and temporally representative of the actual annual ambient conditions of the waterbody. Sample locations in streams and open waterbodies should be characteristic of the main water mass or distinct hydrologic areas. At a minimum, samples should be distributed over at least three seasons (to include inter-seasonal variation) and over two years (to include inter-year variation) to be utilized. The data set should not be biased toward specific conditions, such as flow, runoff, or season. No more than two-thirds of the samples should be in one year or one season. The exception to this is the analysis of data for those designated uses that require seasonally-based water quality data; i.e. primary contact recreation, biological community data, critical season dissolved oxygen.

Below are public comments, as received by ADEQ, concerning the draft 2010 303(d) list followed by a response to each comment.

1. The following comments were received via email from Ms. Alice Andrews, Member of The Ozark Society and Arkansas Conservation Coalition:

Once again, thank you for the opportunity to comment on the 303d list of impaired streams. After reading Gene Dunaway's comments, I threw away my letter. He has covered all the points I wish to make plus several more. Please incorporate his comments with mine by reference.

I have particular concern about the South Fork of the Little Red River, actually all of the forks of the Little Red (Archey's Fork, North and Middle Forks). The South Fork has been heavily impacted with run off related to horizontal fracking for natural gas in the Fayetteville Shale. It should be added to the 303d list if it has not been recently listed. North Cadron Creek should also be added to the 303e list. It has been heavily impacted by natural gas drilling operations, sand and gravel mining and continues to be used for dumping trash off the bluffs onto the river below - old hotwater tanks, tires, washing machines, car parts, household trash, etc.

This once beautiful stream was, in many ways, similar to a little Buffalo River with its high bluffs and lovely flora and fauna. It was a very popular canoeing, fishing and recreational stream. Further, I wish to request in connection with listing these two streams as impaired, that ADEQ inspect the two dumps, one upstream of Highway 65 bridge and one downstream of Hwy. 65 bridge. If you wish, I can give you specific locations for both.

While 13 years are allowed to correct impairments, please find a way to accomplish this process more quickly. I fully understand the lack of funding but this has to change.

Our Arkansas waters are too precious to permit impairments, statewide, to exist for so many years.

I believe that one of the most critical functions of ADEQ has to be public education on water impairment issues. The 303d list and Triennial Review coming up simultaneously is confusing to even those who are familiar with the processes. The general public does not have a clue what this is about. ADEQ has provided a strong public service to hold the hearings and "listenings" however you must go beyond this with press releases, advertisements that get public attention (billboards if necessary!). Shouting out to the public loud and long just might get the attention of some of our legislators, I would hope those who can support and lobby for a significantly larger budget for ADEQ.

ADEQ deserves it, our Waters deserve it!

I have attached Gene Dunaway's comments and attachments for incorporation into my comments. My thanks again for the opportunity to comment and for all the excellent, scientific work in service to the public that ADEQ does.

ADEQ Response:

Thank you, Ms. Andrews, for your comments and concerns for the waterbodies of Arkansas. As described above in the Introduction, the ADEQ assesses impairment in the waters of the State by reviewing and evaluating all readily available data and applying the criteria in the assessment methodology. All monitoring data is assessed based upon the frequency, duration and, and/or magnitude of water quality standard exceedances. The assessment methodology was included in the public notice dated January 17, 2012.

Concerning activities in the Fayetteville Shale area, recently, with assistance from the Arkansas Game and Fish Commission, ADEQ has increased its monitoring and surveillance efforts in the upper forks of the Little Red River and in Cadron Creek. However, while ongoing monitoring efforts have been established, there have not yet been an adequate amount of data collected to adequately assess the streams for the 2012 assessment cycle. ADEQ plans to continue with the current level of monitoring, as resources permit, and evaluate the data during the next assessment cycle.

In response to the alleged dumping at the U.S. Highway 65 Bridge, your comments have been forwarded to the appropriate staff at ADEQ to investigate this dumping.

Concerning your comment regarding the 13 years allowed to correct impairments, the 13 year time frame you are referring to is the recommended time to complete Total Maximum Daily Load calculations. ADEQ has always worked as quickly as possible within our resources to correct impairments when they are identified. In addition, we are constantly working with our regulated facilities to ensure that their permit conditions are current and in compliance in order to avoid further impairments to our water bodies.

Finally, ADEQ seeks to provide as much public outreach and assistance through the Public Outreach and Assistance Division as it can concerning our water resources as well as all our other programs.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.

2. The following comments were received by Jane E. Darr President Friends of the North Fork and White Rivers

*PO Box 61
Mountain Home, Arkansas 72654*



February 17, 2012

Jim Wise
Arkansas Department of Environmental Quality
Water Division
5301 Northshore Drive
North Little Rock, AR 72118
By email to: ImpairedWater-Comments@adeq.state.ar.us

Dear Mr. Wise,

Thank you for facilitating the opportunity to comment on the 303d list of Impaired Waters in Arkansas. It is an ongoing challenge to volunteer citizen groups like Friends of the Rivers to engage its membership and leadership in the complex issues of both this list and the upcoming Triennial Review of Reg. 2. We appreciate the extent to which ADEQ is genuinely trying to inform and invite citizens' action. We also appreciate the improved effort to inform us through press releases and improving the navigability of the website.

Regarding the 303d list, I know from speaking with some of our members that the first thing several of us did was to try to find our particular stream, in our particular county. The visuals helped a lot. You have provided a tool we can use in coaching hesitant researchers to become more practiced at actively monitoring water quality and other environmental issues that impact our counties.

Friends focus (Watershed Restoration Action Strategy) is the Middle Section of the White -- five counties -- Baxter, Marion, Izard, Stone and Independence.

There are a number of streams and waterbodies that concern us.

Our comments are as follows:

We notice that Hicks Creek in Baxter County is listed as Impaired for Pathogen Indicators, with a Municipal Source Point, Priority "H. We support this ongoing listing, but ask what action citizens and municipalities may take.

In Boone County Crooked Creek, one of Arkansas' two Ozark Blue Ribbon Smallmouth Streams (the other being the nearby Buffalo River), has long been a part of Friends focus. The Boone County segment is listed as impaired for chlorides, sulfates, and total dissolved solids,

with source unknown. In Marion County, Crooked Creek is listed as impaired as well for TDS' with the source of the impairment described as "Resource Extraction."

While stream bed gravel mining on Crooked Creek has been halted, there is not a current solution to the private landowner option to take gravel from their own reach of stream.

Page 2. Friends of the North Fork and White Rivers

Friends supports ADEQ's action, expediting TMDL's on these impaired sections of Crooked Creek. We understand the criticism, the lack of comparable information documenting threats to the Creek, but we stand fast on the need to keep our most pristine waterbodies safeguarded. We are encouraged that voluntary monitoring of these sections has been agreed upon.

Friends members, and concerned citizens in **Izard, Stone and Independence** counties are sometimes at their wits end to protect their local streams. In particular, sections of S. Sylamore in Stone County, Mill and Piney Creeks in Izard County and the White River in sections are impaired by excessive sediment that has been caused by the reckless and what was described as "recreational dozing" to the stream banks. These creeks, along with Rocky Bayou Creek in Izard County, below the Unimin dam to the White River should be listed as impaired.

We know that as the rush for gas and sand continues, the impact on our streams and rivers will continue. Friends trusts that proper designation on the 303d list will assist citizens in safeguarding the waterbodies, water quality and their communities. We know this is just part of a process that includes commenting on Regulation 2, the Triennial Review and the opportunity to participate in the Stakeholder Group.

Our Board members actively participate across Arkansas (and across state lines) with numerous environmental and watershed organizations that define the White River Basin. We look forward to partnering in all efforts to inform, educate and empower citizens to influence the protection of our shared natural resources.

Sincerely,

Jane E. Darr

Jane E. Darr
President
Friends of the North Fork and White Rivers
P. O. Box 61
Mountain Home, AR 72654

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

ADEQ Response:

Thank you, Ms. Darr, for your comment. Hicks Creek was listed prior to 2006 utilizing data collected prior to that listing cycle. This stream is scheduled for additional monitoring within the next few years. If the stream remains listed after that monitoring period, actions to address the issue can be planned and implemented.

ADEQ acknowledges your comments and the support of your membership. In your general comments you expressed several different streams that your membership had concerns due to near-stream and/or in-stream activities. Evaluation of the existing data from the water bodies you highlighted in your comments above did not indicate a “non-attainment” of the applicable water quality standards. As discussed in the above introduction, a stream cannot be designated as impaired because there is not riparian cover, there has been in-stream gravel mining, or because of some other in-stream or near bank activity. ADEQ must rely on scientifically defensible data when making attainment decisions. However, this is not to say that these activities don’t have the potential to cause impacts to our water resources. ADEQ will continue to monitor our water resources and we look forward to partnering with our stakeholders.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.

3. The following comments were received from the Ms. Debbie Doss, Arkansas Canoe Club, Arkansas Conservation Coalition:

First, I want to thank the staff of ADEQ and our other state agencies for their ongoing efforts to maintain the pristine nature of our watersheds. We appreciate the addition of new inspectors to the area of the Fayetteville Shale and the push by the agency to complete TMDLs for streams that have become impaired in Arkansas. Over the years we have seen a continuous degradation of water quality in our state. We must act now to reverse this trend and restore our waters to their natural pristine condition.

There are a number of stream segments which are not included on the new 303d list which have clearly become degraded. We wish to address two of these in this comment.

The South Fork of the Little Red River has suffered numerous assaults since 2008 when the shale gas industry moved into the watershed. Leakage from untended frack pits has released pollutants into the watershed while construction activities have added large amounts of sediment to the system. Tornado damage near the town of Scotland did massive damage to the riparian zone around the area of Highway 95. From Highway 95 downstream to Highway 65 agricultural practices continue to be a serious issue for this stream. Sedimentation has been so severe that it has damaged the Clinton water treatment facility. Last summer gas companies were fined by the USFWS when activities in the streambeds of both the South Fork and the Archie Fork killed populations of the endangered Speckled Pocketbook Mussel. This mussel and the Yellow Cheek Darter have been added to the federal endangered species list. The Service states the Darter habitat in the South Fork of the Little Red has become degraded.

The North and South Forks of Cadron Creek have also suffered a great deal of damage from gas construction activities and two extreme seasons of flooding which has ripped away already unstabilized banks. More riparian land has been cleared and dumping of household garbage into these creeks has become a problem.

It has become apparent to those of us who visit these streams frequently that the rate of their degradation is accelerating. Very high levels of sedimentation, turbidity, and debris are most apparent after storm events.

Please add the North and South Forks of Cadron Creek and the South Fork of the Little Red River to the list of Impaired Waterbodies. This will give be a first step toward reversing their degradation.

Thank you for your help and for all that you do to preserve the highest standards of water quality for our state.

Sincerely, Debbie Doss
Chairman of the Arkansas Conservation Coalition

ADEQ Response:

Thank you, Ms. Doss, for your comments. In cooperation with the Arkansas Game and Fish Commission, ADEQ has increased its monitoring and surveillance efforts in the upper forks of the Little Red River and in Cadron Creek. However, while ongoing monitoring efforts have been established, there have not yet been adequate amounts of data collected from this effort to adequately assess the streams for the 2012 assessment cycle. ADEQ plans to continue with the current level of monitoring, as resources permit, and evaluate the data during the next assessment cycle.

ADEQ has recently increased monitoring efforts in each of the watersheds mentioned. However, the timing of the initiation of the monitoring was such that only limited data were produced prior to the end of the period of record. Thus, there are insufficient data to assess for this listing cycle.

In your general comments you expressed several different streams in which you had concerns due to near-stream and/or in-stream activities. Evaluation of the existing data from the water bodies you highlighted in your comments above did not indicate a “non-attainment” of the applicable water quality standards. As discussed in our Introduction, ADEQ cannot list a stream as impaired because there is no riparian cover, or Fayetteville Shale Gas Play activities or some other in-stream or near bank activity. ADEQ must rely on scientifically defensible data when making attainment decisions. However, this is not to say that these activities don’t have the potential to cause impacts to our water resources. ADEQ will continue to monitor our water resources and we look forward to partnering with our stakeholders.

As stated above, it is planned that the current monitoring efforts will continue which will produce a more accurate assessment of the water bodies during the 2014 listing cycle. ADEQ is also receptive of any and all data generated by other sources that will assist in the evaluation of waterbody designated uses and attainment of water quality standards, given that data meets the criteria outlined in the most recent Assessment Methodology.

ADEQ is proposing no change to the 2012 303(d) list as a result of these comments.

4. The following comments were received from Mr. Gene Dunaway:

Thank you for the opportunity to comment on the 303d list of Impaired Waters in Arkansas. As you know, I am no longer associated with Friends of the North Fork and White Rivers, except as a lifetime member. Therefore, these comments and comments in the future do not reflect the views of that organization.

I commend you for providing visual information showing impaired waters in each county. This is much more assessable, although the displayed version needs to be larger to see the stream names and sections easily.

Regarding the news release itself (attached) it is bundled with a petroleum storage tank advisory committee notice. The “headline” at the top of the press release doesn’t even mention there is a comment period, only a hearing. The information about the opportunity to comment and deadlines are in the next to last paragraph. This list is an important document for water conservationist as it determines the streams and other waterbodies where problems are recognized and hopefully addressed. These press releases are the main way many of us get our information. I recommend this notice be included in it’s own press release; that the comment opportunity be mentioned in the headlines and early in the press release itself. I also ask that the information about the hearing and comment period should be included on your ADED 303(d) list page, even though it is listed elsewhere on your web site.

Also, I admit my own confusion about Reg. 2 changes and the 303d list, which are happening at the same time this year. The public could use some clarification about the distinction between these two aspects of water listing and protection and general categories of information ADEQ wants on these two aspects of water protection.

As to listing streams, I note we have a new Constitutional Amendment that guarantees the right of Arkansans to Hunt and Fish. Therefore, anyone whose activities impair a stream has now violated a fundamental constitutional right. This raises the bar on listing and addressing impaired streams and stream sections. Any activity that degrades the biological integrity of a stream section or its banks or the physical alternation of habitat should be considered impaired and remedial action pursued.

In general, I would say that streams in the Ozarks of North Central Arkansas are most affected by sediment related to erosion after clearing, forest roads that are poorly designed and not maintained, clear cutting and stream bed gravel mining. As you know, we have many incidents where most vegetation is removed in or near streams and when it floods, these areas begin to erode and never stop. Mill Creek is a prime example where someone cleared a mile of the stream down to the sand. The stream bed was covered by sediment. This, of course, kills or reduces the bottom of the food chain and effects all aquatic life that relies on these tiny critters. Stream bed gravel mining does the same thing, causing erosion up stream (head cutting or bank busting) and excessive sediment downstream. Even worse, the stream is constantly trying to compensate by moving sand and gravel around to fill up holes. This is destroying other people’s property as well. Excessive sediment should be added as a criterion to your list. I know you have “turbidity” on your list, but there are no standards and it seems you’re measuring the wrong thing. Turbidity is what you see during floods when the stream is moving bedload. You can never trace who did that. All the streams are muddy when it’s flooding as some of this is natural. People who don’t clear their banks should be left alone. Those who clear their banks should be required to stabilize

them. The excuse that “the flood caused it” should be eliminated. Floods happen and can be anticipated.

Measuring excessive sediment seems much easier. It is the main “pollutant” in our streams. Take a camera out and take a picture of the stream section. If it’s covered with some percent of mud, that’s excessive. Any section of stream over 50 (or some other distance) yards where all the vegetation has been removed should be considered impaired, as it will cause sediment problems for years to come.

All streams sections wider than 30 feet should be flown with video cameras in winter each year so changes in stream bank integrity can be monitored. Come back next year and you will see where people have cleared the vegetation off their banks.

Specifically, sections of S. Sylamore in Stone County, Mill Creek and Piney Creek in Izard County and the White River in sections should be added as impaired by excessive sediment. Land owners who buy property that has been cleared of vegetation should be required to stabilize their banks as part of the TMDL aspect. This will allow people to factor the cost of stabilizing the bank into the price they pay for the land. Taxpayers should not be required to pay to restore banks that someone else degraded. Areas where banks are eroding and the property owners did NOT clear their banks should be given first priority for stabilization funding, not those who destabilized the banks in the first place.

Any stream area where stream bed gravel mining has taken place, even if exempt under the landowners exemption, is "impaired" as areas above it will erode and below it will cause sediment problems. Currently, developers (some who are commercial gravel miners) are buying land on small streams to qualify under the "land owners" exemption, mining the sand and gravel and then using it to build subdivision roads that are not contiguous to the land they own. All they have to do is sell it to another developer who can proceed with that operation and I assume can hire someone to remove the sand and gravel from stream beds. No standards exist for landowner removal.

If developers engage in activity where they cause a stream to become impaired, the correction of the impairment should be included as a condition of issuing any new permits. If rehabilitation efforts fail to meet schedule deadlines, except for natural disasters, new permit activity should be suspended until rehabilitation is complete.

The Cadron and South Fork of the Little Red should be listed as impaired.

Rocky Bayon Creek in Izard County, below the Unimin dam to the White River should be listed as impaired. The dam breaks repeatedly and there are now large rocks and excessive erosion below the dam.

Any place where landowners have put in a low water bridge, without culverts, should be listed as impaired, as it is blocking the flow of the stream and the movement of aquatic life up and down the stream. An alternative solution should be devised for landowners in remote areas so they can cross streams at some reasonable interval as long as they don't significantly impair the stream and the bridges are open to the public. Public/private partnerships should be considered to fund and maintain these crossings.

Any stream section where violations of the Arkansas Water and Air Pollution Control Act should be listed as impaired in that section of the stream.

I also know that ADEQ has been criticized for expediting TMDL's on impaired sections of Crooked Creek. I have read that some argue we should wait 13 years, the maximum, before doing a TMDL and beginning efforts to eliminate the impairment. They argue it is "too expensive" for us to have clean water and standards should be compromised. I do not agree. If we do not have the will and the money to address water concerns now, where will we get the will and money to do so in the future after things get worse? As you know, it is much more cost effective to stop the damage before it is in progress, especially where sediment and turbidity is concerned.

As you know, your agency and private individuals have significant challenges in establishing proximate cause of damage, once it has occurred. Streams erode naturally, although I note that the back to back 2008 floods caused no damage to areas of the White River where vegetation had not been disturbed. When physical alteration has occurred at several locations, there is no way to prove that a specific site elsewhere caused the specific damage that occurs somewhere else. This means, we must "stop it at the source."

Again, I encourage you to get a grant or use access to planes and helicopters to fly significant streams end to end, in winter, to create a baseline of what is going on. Of course, this activity should be made public before it happens and I consider white helicopters.

Stop it at the source. Thank you for the opportunity to comment.

ADEQ Response:

Thank you, Mr. Dunaway, for your comments. ADEQ is working on posting the maps in a different format so they are more easily viewed. Information concerning the public hearings and the acceptance of written comments are currently on the 303(d) website and important information will continue to be posted to this website. In addition, we constantly strive to improve our communication efforts with the public. Our Public Outreach and Assistance Division is working to ensure our press releases are accurate and informative. We will share your comments regarding these processes with them.

In your general comments you expressed several different streams in which you had concerns due to near-stream and/or in-stream activities. Evaluation of the existing data from the waterbodies you highlighted in your comments above did not indicate a “non-attainment” of the applicable water quality standards. As discussed in the above Introduction, ADEQ cannot list a stream as impaired because there has been certain land clearing activities in the watersheds, culvert construction, gravel mining, Fayetteville Shale Gas Play activities, or other in-stream or near bank activity. ADEQ must rely on scientifically defensible data when making attainment decisions. However, this is not to say that these activities don’t have the potential to cause impacts to our water resources. ADEQ will continue to monitor our water resources and we look forward to partnering with our stakeholders.

ADEQ proposes no changes to the 2012 303(d) list as a result of these comments.

5. The following comments were received from Ms. Shannon Hensley, Van Buren County Oil and Gas Advisory Board:

I attended the open listening and input session on February 9th in North Little Rock on Reg. No. 2. It was my first meeting to attend held by ADEQ. I want to express appreciation for ADEQ’s willingness to hear and receive input from the many different organizations on the different water issues pending.

I am a landowner and I receive royalties from the Gas Industry. I realize the importance of the Gas Industry at the same time I see the major impact the industry is having on our environment in particular the landscape in and around streams, rivers and tributaries in the area. I strongly suggest that the North and South Forks of Cadron Creek be listed as Impaired Waterbodies. My observations as a landowner in the area and avid outdoors person are that the quality of these waters is greatly diminishing. In the past five years, our area has experienced multiple devastating tornados, extreme amount earthquakes, and an enormous influx of construction activities associated with the Oil and Gas Industry. These bodies of water are currently experiencing a very high level of sedimentation, turbidity, and debris imparts due to naturally occurring, human and Gas industry events.

I appreciate the staff of ADEQ for their ongoing efforts to maintain the pristine nature of our watersheds. I have learned that the AR Game and Fish Comm. were able to donate additional funding to ADEQ with the aim of addressing effects of the Gas Industry on our watersheds in the Fayetteville Shale. This has allowed the introduction of many new resources, including additional inspectors for the region. A major concern is when the funding runs out how will the level of quality be maintained? I would like to see one of the results of the lessening session be the importance of maintaining or increasing the level of inspections in the major affected areas.

The impact of these natural and man-made influences has been significant to Cadron Creek. Construction activities that involve stream crossings, pipeline right-of-ways, culverts, access roads, and well-pad construction have had a strong cumulative impact on the overall water quality of this watershed. These are individual cases that compact over time to create a much larger issue of concern. Listing the North and South Forks of Cadron Creek as Impaired Waterbodies will give our state agencies, local municipalities, and concerned citizens groups the

opportunity to initiate monitoring systems and introduce programs to improve water quality, habitat, and riparian reclamation. I thank you very much for your consideration and dedication to improving water quality standards in our state

ADEQ Response:

Thank you, Ms. Hensley, for your comments. In cooperation with the Arkansas Game and Fish Commission, ADEQ has recently increased monitoring efforts in each of the watersheds mentioned. However, the timing of the initiation of the monitoring was such that only limited data were produced prior to the end of the period of record. Thus, there were insufficient data to assess for this listing cycle.

In your general comments you expressed concerns of the North and South Forks of Cadron Creek due to near-stream and/or in-stream activities. Evaluation of the existing data from the water bodies you highlighted in your comments above did not indicate “non-attainment” of the applicable water quality standards. As discussed above in our Introduction, ADEQ cannot list a stream as impaired because there is no riparian cover, or Fayetteville Shale Gas Play activities, or some other in-stream or near bank activity. ADEQ must rely on scientifically defensible data when making attainment decisions. However, this is not to say that these activities don’t have the potential to cause impacts to our water resources. ADEQ will continue to monitor our water resources and we look forward to partnering with our stakeholders.

It is planned that the current monitoring efforts will continue which will produce a more accurate assessment of the waterbodies during the 2014 listing cycle. ADEQ is also receptive of any and all data generated by other sources that will assist in the evaluation of water body designated uses and attainment of water quality standards, given that data meet the criteria outlined in the most recent Assessment Methodology.

ADEQ proposes no listing changes to the 2012 303(d) list as a result of these comments.

6. The following comments were received from Mr. Tom Kimmons, Director, Shirley Community Development Corporation:

Please submit the following comments that apply to any revisions to Reg. 2 and any additions to the Impaired Water List (303)d. I attended the Commissions' hearing on Feb. 7, 2012 at ADEQ headquarters and spoke with Jim Wise of ADEQ and Darcia Routh of Arkansas Dept. of Health. I have two concerns regarding water quality:

1) Specifically in Van Buren County, 2) Generally in the waters of the Fayetteville Shale Play.

I) ADEQ's list of Impaired Waterbodies include notices of mercury contamination on the South fork of the Little Red River in Clinton, as well as E. Coli contamination of the Middle Fork of the Little Red River above and below Shirley. In the question and answer session during the hearing, it was stated by ADEQ staff that these impairments date back to the late 1990's in Clinton and 2004 in Shirley. This is far too long a time period, in my judgment, for an impairment to continue unabated. New testing on these bodies of water is the minimum that should be conducted by ADEQ. Secondly, a remediation plan for both impairments should be

forthcoming in the near future. Since these impairments on both river forks appear to be in a localized area, point sources need to be identified and a remediation plan designed to mitigate any impairments.

II) The past several years has seen an eruption of natural gas activities in the Fayetteville Shale Play in north Arkansas. Run-off from drill pads, road construction to well pads, pipeline crossings of creeks and streams, withdrawal of water from streams and wells are all new threats to management of minimum flows in streams, as well as sedimentation and turbidity problems in Arkansas. There are increasing reports of overflow from waste water and produced water pits, as well as spraying of produced water on fields and area roads to "hold down the dust". These produced waters ultimately have a direct impact on the quality of the water in the streams and rivers that they run into - directly, or as run-off from rains and storm periods.

In 2011 my organization (SCDC) worked in tandem with the USGS and U. of A. Geology Dept. to do water testing in Van Buren County. Also, with Sorrels Research Assoc. to do surface water testing in Van Buren County. These tests measured everything from chlorides to CH₄ to VOC's, BTEX, TPH, TOC, inorganics, etc. The new and growing natural gas industry in the Fayetteville Shale Play is creating more demands upon the state, and ADEQ in particular, to acknowledge the need for exhaustive and intensive surface/ground water testing in order to protect the health of residents and the environment in a manner that wasn't required in times past. Any revision to Reg. 2 needs to defend against all actions that would weaken protection of the waters of Arkansas. I strongly suggest that in lieu of new and growing threats to water quality presented by the new gas industry and subsequent contamination of waters of Arkansas due to fracking fluids, produced water, and other new contaminants ADEQ needs to strengthen and add to both monitoring and expanded testing protocols to stay abreast of these new threats to the quality of water of Arkansas. Please file my comments.

ADEQ Response

Thank you, Mr. Kimmons, for your comments. It is correct that the original listings for the South Fork Little Red River and the Middle Fork Little Red River are several years old and the data set has not been updated. ADEQ must work within their resource(s) constraints to maintain the most effective and efficient monitoring networks as possible. These waterbodies are scheduled for re-activation of monitoring activities within the next few years which will allow for the re-evaluation of designated uses and water quality standards attainment over the next couple of assessment cycles.

In cooperation with the Arkansas Game and Fish Commission, ADEQ has recently increased monitoring efforts in each of the watersheds mentioned. However, the timing of the initiation of the monitoring was such that only limited data were produced prior to the end of the period of record. Thus, there were insufficient data to assess for this listing cycle.

It is planned that the current monitoring efforts will continue which will produce a more accurate assessment of the water bodies during the 2014 listing cycle. ADEQ is also receptive of any and all data generated by other sources that will assist in the evaluation of water body designated uses and attainment of water quality standards, given that data meet the criteria outlined in the most recent Assessment Methodology.

ADEQ is proposing no changes to the 303(d) list as a result of these comments.

7. The following comments were received from Mr. Greg Manry:

I would like to make a formal comment on an impaired stream in North Central Arkansas...This stream is Rocky Bayou that enters the White River below the Hwy 56 bridge at Guion, AR. Unimin Corp. has a dam that totally restricts the creeks flow on "normal flow." The only water that comes through the dam is seepage and during heavy rains it does breach the top and run over causing the sediment used to construct the dam to wash further downstream and fill the creek with huge boulders and silica sediment. The habitat below the dam has been destroyed as a result. I have personally witnessed scum, film, and some type of fuel runoff cover the surface of the water and enter White River on several occasions over the years. I know ADEQ has fined Unimin and cited them for violations regarding discharge, so this issue is not a new one to ADEQ. This dam need to be removed and the creek needs to be returned to a free flowing stream. Unimin can make arrangements to draw their water from White River just as the city of Mtn. View does for their drinking water just upriver. I urge you to please consider placing Rocky Bayou creek on the list of impaired streams because it is without a doubt in serious trouble from the Unimin dam to the confluence of the White River which is approximately .25 (1/4) of a mile in length.

ADEQ Response:

Thank, you Mr. Manry, for your comments. In your general comments you expressed concerns you had on Rocky Bayou due to a small dam that was constructed by the Unimin Corporation. ADEQ must rely on scientifically defensible data when making attainment decisions. ADEQ does not have any water quality or biological data from Rocky Bayou in order to make an evaluation of water quality standards. As discussed in the above Introduction, ADEQ cannot list a stream as impaired because there is no riparian cover or because of some other in-stream or near bank activity. ADEQ must rely on scientifically defensible data when making attainment decisions. However, this is not to say that these activities don't have the potential to cause impacts to our water resources. ADEQ will continue to monitor our water resources and we look forward to partnering with our stakeholders.

ADEQ is proposing no changes in the 2012 303(d) list as a result of this comment.

8. The following comments were received from Dina Nash:

Many people are concerned about the lack of control by ADEQ of the sediment pouring into our most beautiful streams, ruining the fish habitat and other water quality indicators such as yellowcheek darter populations and the related ecosystem of the darter.

Specifically, sections of S. Sylamore in Stone County, Mill Creek and Piney Creek in Izard County and the White River in sections should be added as impaired by excessive sediment.

Furthermore, landowners who buy property that has been cleared of vegetation should be required to stabilize their banks as part of the TMDL issue. If ADEQ will require bank

stabilization, this will allow people to factor the cost of stabilizing the bank into the price they pay for the land. Taxpayers should not be required to pay to restore banks that someone else degraded. Areas where banks are eroding and the property owners did NOT clear their banks should be given first priority for stabilization funding, not those who destabilized the banks in the first place. Arkansas's ADEQ really must get better control of gravel mining and bank destabilization by careless owners.

Any stream area where stream bed gravel mining has taken place, even if exempt under the landowners exemption, is "impaired".

It is impaired because areas above it will erode and below it will cause sediment problems. Currently, developers (some who are commercial gravel miners) are buying land on small streams to qualify under the "land owners" exemption, mining the sand and gravel, and then using it to build subdivision roads that are not contiguous to the land they own. All they have to do is sell it to another developer who can proceed with that operation, then hire someone to remove the sand and gravel from stream beds. No standards exist for landowner removal.

There need to be standards for landowner removal. Please take this up at this hearing. Also, please set up an annual helicopter photo review of streambank conditions along the above-mentioned streams, including the Little Red River and the streams forming the tributaries to the Little Red.

If developers engage in activity where they cause a stream to become impaired, the correction of the impairment should be included as a condition of issuing any new permits. If rehabilitation efforts fail to meet schedule deadlines, except for natural disasters, new permit activity should be suspended until rehabilitation is complete. Please address this at your hearing.

Please acknowledge receipt of my public comment and thank you for your hearing of this matter. We need results soon or these streams will soon NOT be known as prime fishing places!

ADEQ Response:

Thank you, Ms. Nash, for your comments. In your general comments you expressed concerns you had on several streams due to near-stream and/or in-stream activities. Evaluation of the existing data from the water bodies you highlighted in your comments above did not indicate a "non-attainment" of the applicable water quality standards. As discussed in the above Introduction, ADEQ cannot list a stream as impaired because there is no riparian cover or because of some other in-stream or near bank activity. ADEQ must rely on scientifically defensible data when making attainment decisions. However, this is not to say that these activities don't have the potential to cause impacts to our water resources. ADEQ will continue to monitor our water resources and we look forward to partnering with our stakeholders.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.

9. The following comments were received from Mr. Peyton Rose:

1) The purpose of this statement is to strongly suggest that the North and South Forks of Cadron Creek be listed as Impaired Waterbodies, and the East Fork of the Cadron remain on the list. My observations as a resident of the area and avid outdoorsman are that the quality of these waters is greatly diminishing. In the past five years, our area has experienced two devastating tornados, multiple earthquakes, and an enormous influx of construction activities associated with the Oil and Gas Industry. These waterbodies are currently experiencing, what seems to be, very high levels of sedimentation, turbidity, and debris.

I appreciate the staff of ADEQ and our other state agencies for their ongoing efforts to maintain the pristine nature of our watersheds. I have learned that the AR Game and Fish Comm. was able to donate additional funding to ADEQ with the aim of addressing effects of the Gas Industry on our watersheds in the Fayetteville Shale. This has allowed the introduction of many new resources, including additional inspectors for the region.

The impact of these natural and man-made influences has been significant to Cadron Creek. Construction activities that involve stream crossings, pipeline right-of-ways, culverts, access roads, and well-pad construction have had a strong cumulative impact on the overall water quality of this watershed. These are individual cases that compact over time to create a much larger issue of concern. Listing the North and South Forks of Cadron Creek as Impaired Waterbodies and allowing the East Fork of the Cadron to remain on the list, will give our state agencies, local municipalities, and concerned citizens groups the opportunity to initiate monitoring systems and introduce programs to improve water quality, habitat, and riparian reclamation. I thank you very much for your consideration and dedication to improving water quality standards in our state.

2) The purpose of this statement is to strongly suggest that Greers Ferry Lake and the Tailwaters of the Little Red River be listed as Impaired Waterbodies. My observations as a resident of the area and avid outdoorsman are that the quality of these waters is greatly diminishing. In the past several years the Greers Ferry watershed has experienced a very large flood and an enormous influx of construction activities associated with the Oil and Gas Industry. These waterbodies are currently experiencing very high levels of sedimentation, turbidity, and debris. The Clinton Water facility is having a very hard time keeping up with treating it's drinking water. After even the slightest rain events, the Little Red tailwaters and its tributaries are running stained with sedimentation unlike any time I've seen in my life.

I appreciate the staff of ADEQ and our other state agencies for their ongoing efforts to maintain the pristine nature of our watersheds, and I hope staff will consider to begin studies on Greers Ferry Lake and the Tailwaters of the Little Red.

The impact of these natural and man-made influences has been significant to Greers Ferry Lake and the Little Red River tailwaters. Construction activities that involve stream crossings, pipeline right-of-ways, culverts, access roads, and well-pad construction have had a strong cumulative impact on the overall water quality of this watershed. These are individual cases that compact over time to create a much larger issue of concern. Listing Greers Ferry Lake and the

Little Red River tailwaters as Impaired Waterbodies will give our state agencies, local municipalities, and concerned citizens groups the opportunity to initiate monitoring systems and introduce programs to improve water quality, habitat, and riparian reclamation. Again, I thank you very much for your consideration and dedication to improving water quality standards in our state.

ADEQ Response:

Thank you, Mr. Rose, for your comments. In cooperation with the Arkansas Game and Fish Commission, ADEQ has recently increased monitoring efforts in each of the watersheds mentioned. However, the timing of the initiation of the monitoring was such that only limited data were produced prior to the end of the period of record. Thus, there were insufficient data to assess for this listing cycle.

In your general comments you expressed concerns of several streams due to near-stream and/or in-stream activities. Evaluation of the existing data from the water bodies you highlighted in your comments above did not indicate a “non-attainment” of the applicable water quality standards. As discussed in the above introduction, ADEQ cannot list a stream as impaired because there is no riparian cover or because of some other in-stream or near bank activity. ADEQ must rely on scientifically defensible data when making attainment decisions. However, this is not to say that these activities don’t have the potential to cause impacts to our water resources. ADEQ will continue to monitor our water resources and we look forward to partnering with our stakeholders.

Current monitoring efforts will continue to produce a more accurate assessment of the waterbodies during the 2014 listing cycle. ADEQ is also receptive of any and all data generated by other sources that will assist in the evaluation of water body designated uses and attainment of water quality standards, given that data meet the criteria outlined in the most recent Assessment Methodology.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.

10. The following comments were received from Ms. Frieda L. Schroder, Friend of the Rivers:

I have lived in Pulaski, Saline, Faulkner and Baxter Counties for the better part of my seventy years. I have a tremendous respect for the states water resources and a deeper sadness for what I see happening to our rivers and streams. I appreciate the tireless work and effort put forth by the ADEQ and what has been accomplished with limited funds and personnel. I believe the Red River, Caddo River and Ouachita River along with Cadron Creek and Crooked Creek be declared impaired waterways. Good water is our most precious resource, life giving, life restoring. I support the effort to restore these waters to their unsullied state.

ADEQ Response:

Thank you, Ms. Schroder, for your comments. In your general comments you expressed concerns you had on several streams due to near-stream and/or in-stream activities. Evaluation of

the existing data from the water bodies you highlighted in your comments above did not indicate a “non-attainment” of the applicable water quality standards. As discussed in the above introduction, ADEQ cannot list a stream as impaired because there is no riparian cover or because of some other in-stream or near bank activity. ADEQ must rely on scientifically defensible data when making attainment decisions. However, this is not to say that these activities don’t have the potential to cause impacts to our water resources. ADEQ will continue to monitor our water resources and we look forward to partnering with our stakeholders.

Portions of the Red River are listed as impaired due to chlorides, turbidity, sulfates, and total dissolved solids (TDS). A segment of the Caddo River is listed as impaired due to turbidity. A segment of the Ouachita River is listed as impaired due to turbidity and another segment due to copper. Segments of Crooked Creek are listed as impaired due to chlorides, sulfates, and TDS. Cadron Creek does not exhibit data that indicate impairment according to the water quality standards outlined in Regulation No. 2.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.

11. The following comments were received via email from Mr. James Baker:

2012 List of Impaired Waterbodies Comments

1.) ADEQ takes many abiotic & biotic factors into consideration when compiling data; however, has ADEQ compiled any data in regards with physical disturbances (i.e., channelization, dams, releases from reservoirs, etc.) and the impacts these types of disturbances have on macroinvertebrate & fish communities? An unregulated river (free flowing) is becoming an endangered ecosystem. They are continuous from headwaters to confluences, and channelization & dams implies “impairment” of these flowing systems from start to finish as with any part of the Water Cycle. Due to Greer’s Ferry Dam & the formation of Greer’s Ferry Lake, the endemic Yellowcheek Darter from Devil’s Fork of the Little Red River has been cut off from populations from the South, Archey’s, and Middle Forks. The genetic integrity of this species has been impaired by a physical disturbance that has been more detrimental than any other Water Quality parameter monitored by ADEQ. The thermal changes due to releases from reservoirs have formed “biological wastelands,” and the lesser of two evils has been to stock non-native, tolerant species (i.e., trout, carp, etc.). These same species migrate to unregulated rivers such as the Buffalo National River &/or consume endangered species such as Ozark Hellbenders. Are impact studies routinely conducted to determine if federal (US Army Corp of Engineers) &/or state (AGFC) agencies have the best interest of the unregulated river in mind when they construct physical barriers & stock non-native species? What is ADEQ doing to protect Arkansas’ remaining unregulated rivers? They should be listed simply because of their rarity.

2.) If a waterbody is listed based on “Biological Integrity” evaluations, what regulatory role does ADEQ play in stabilizing &/or improving the evaluations of the listed waterbody? Furthermore, ADEQ should classify “non-native, invasive species” as a pollutant as even bait releases of native species have impacted endemic species (i.e., Ringed Crayfish into the Spring River).

3.) Does ADEQ conduct any type of investigative research to determine the root causes of any detrimental shifts in “Specific Standards” such as turbidity, mineral quality, etc.?

4.) It was alarming to hear in the Public Hearing that lentic systems had been sampled up to 2004 (e.g., no data from 2004-2012). Many of these systems are public drinking sources, and even if the lotic systems supplying the water to these reservoirs is routinely sampled/tested, it would appear that any pollutant found in the stream would be at a higher concentration in the lake. I understand funding & resources, but you would think state government would find the money to test the public's water supply?

ADEQ Response:

Thank you for your specific comments, Mr. Baker.

1) As described above in the Introduction, the ADEQ assesses impairment in the waters of the state by reviewing and evaluating all readily available data and applying the criteria in the assessment methodology. All monitoring data are assessed based upon the frequency, duration and, and/or magnitude of water quality standard exceedances. The assessment methodology was included in the public notice dated January 17, 2012. While physical disturbances such as those you have described have an impact on the free-flowing characteristics of our streams and rivers, compilation of data concerning these alterations do not exist. Environmental Impact Studies are required by the National Environmental Policy Act (NEPA) for projects that utilize federal funding; however, all Corps dams in Arkansas were constructed prior to the passage of NEPA.

2) ADEQ is charged with establishing designated uses of our water resources and developing criteria to protect those uses. Further, ADEQ provides regulatory oversight to any facility that discharges directly to our water resources through the requirements of the National Pollutant Discharge Elimination System (NPDES) permit program. Once a waterbody is listed as impaired a TMDL or Total Maximum Daily Load must be calculated. A TMDL is a calculation of the maximum amount of a specific pollutant that a waterbody can receive and still meet its water quality criteria and maintain its designated uses. Concerning identifying non-native, invasive species as a pollutant, the Arkansas Pollution Control and Ecology Commission's Regulation No. 2 does not provide such a criteria and therefore a stream cannot be impaired for "non-native, invasive species".

3) ADEQ has approximately 150 water quality monitoring stations and 200 rotational stations where many parameters are measured including turbidity and minerals. In addition, as resources allow, ADEQ performs special studies on a small scale basis. For many stream segments listed the cause for the impairment is unknown; however, this does not preclude ADEQ from listing the stream segment as impaired as required by the CWA. Currently ADEQ does not have resources to investigate the source of each impairment.

4) ADEQ is currently collecting water quality data at Beaver Lake, Blue Mountain Lake, Bull Shoals Lake, Lake Catherine, Dierks Lake, DeGray Lake, DeQueen Lake, Gillham Lake, Greers Ferry Lake, Lake Greeson, Lake Hamilton, Lake Millwood, Lake Nimrod, Lake Norfolk, Lake Ouachita, and Lake Fort Smith. However, other local entities including municipalities, as well as the United States Geological Survey (USGS) and the Arkansas

Department of Health routinely sample drinking water sources to ensure these water bodies are meeting the requirements of the Federal Safe Drinking Water Act.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.

12. The following comments were received by the Arkansas Department of Health.



Arkansas Department of Health

4815 West Markham Street • Little Rock, Arkansas 72205-3867 • Telephone (501) 661-2000

Governor Mike Beebe

Paul K. Halverson, DrPH, FACHE, Director and State Health Officer

Engineering Section, Slot 1137

www.HealthyArkansas.com/eng/

Ph 501-661-2623

After Hours Emergency 311-661-2136

Fax 501-661-2032

February 14, 2012

Jim Wise
Arkansas Department of Environmental Quality
Water Division
5301 Northshore Drive
North Little Rock, AR 72118

RE: Comments on ADEQ 2012 Draft Impaired Waterbodies List [303(d)]

Dear Mr. Wise,

Attached is a table of 27 of the proposed impaired streams and the 24 public water systems which may be potentially impacted by them. This table was compiled by comparing the recently issued ADEQ draft 303(d) impaired waterbodies list to surface water intake locations and their respective watersheds for public water systems in the state. The table includes specific stream or lake information compiled by ADEQ, the affected public water systems with an intake or source assessment zone immediately in or within 5 miles downstream of the impaired segment, and the population served by the water system.

The Arkansas Department of Health has primacy in the state for implementation of the federal Safe Drinking Water Act and ADEQ implements the federal Clean Water Act. The primary mission of the Arkansas Department of Health is the protection of public health, and the strong link between safe public drinking water and public health drives our program. We recognize ADEQ shares this goal and we request your continued partnership in this worthwhile endeavor and request that drinking water sources be a priority when determining the final 2012 303(d) Impaired Water Bodies listings.

Impaired waterbodies can significantly increase the cost of treatment required to meet Safe Drinking Water Act standards. They can also increase the risk of exposure to regulated pathogenic contaminants. For example, high sediment in a stream increases the cost for the water utility to meet the drinking water standard for turbidity, and sediment is one indicator of the increased presence of microbiological contaminants in the source water, including *E. coli*, *Giardia lamblia* and *Cryptosporidium*.

We request your assistance in placing a priority on drinking water sources when evaluating and addressing the 2012 list of impaired water bodies. Listed below are several recommended actions that your agency could take that would reflect that priority.

- Higher priority in protecting any in-use drinking water source.
- Increased monitoring to better identify the temporal and spatial areas of impairment—especially for the Category 4A waterbodies which may impact public water supplies.
- Higher priority in identifying and correcting the sources of impairment.
- Increased compliance scrutiny on the monitoring and operational reports of wastewater, stormwater, resource extraction, and other applicable permittees.
- Stricter effluent standards for new and renewed permits, or a ban on new permits, when warranted.
- The establishment of TMDLs, where applicable.
- Increased emphasis and coordination on controlling nonpoint pollution sources.
- Preferential funding of assessment, restoration, and mitigation projects for nonpoint pollution sources.

The protection of drinking water sources and the protection of public health require the active involvement of all levels of government. The Department of Health will continue to pursue these goals through its public water system oversight program. Other agencies – federal, state, and local – must also contribute. Your collaborative efforts are appreciated.

Should you wish to discuss these matters further, please call me or Darcia Routh, Geology Supervisor, at 501-661-2623.

Sincerely,



Jeff Stone, P.E.
Director, Engineering Section

Encl.

cc:

J. Randy Young, P.E., Executive Director, Arkansas Natural Resources Commission
Mary Barnett, ADEQ
Joe Bates, MD, ADH Deputy State Public Health Officer
Nate Smith, MD, MPH, ADH Deputy Director
Terry Paul, Chief, ADH Environmental Branch
Enclosed list of public water systems



2012 Impaired Waterbodies with Arkansas Public Water System Surface Water Intakes On or Just Downstream

	HUC	Reach	Planning Segment	Standard	Reason	ADEQ Priority	Affected Public Water System	Population Served
Caddo River	8040102	016 018 019	2F	Turbidity, Zinc, Copper	Resource Extraction	Low	Amity Glenwood	3,900 4,000
Little Missouri River	8040103	008 022	2G	Turbidity Copper	Unknown	Low	Prescott Murphreesboro	5,200 3,800
Saline River	8040203	010	2C	Turbidity, TDS	Erosion Unknown	High	Benton Ark Health Ctr	32,500 3,600
Fourche LaFave River	11110206	001 002	3E	Dissolved Oxygen, Mercury	Unknown	Low	Perryville Bigelow	4,150 550
Nimrod Lake	11110206		3E	Fish consumption – mercury	Unknown	Existing TMDL	Plainview	1,100
Lake Winona	8040203		2C	Fish consumption – mercury	Unknown	Existing TMDL	Central Arkansas Water	415,000
Lake Columbia ¹	11140203		1A	Fish consumption – mercury	Unknown	Existing TMDL	Magnolia	15,000
Beech Creek ¹	11140203	025	1A	Dissolved oxygen, Turbidity, Pb	Unknown	Low	Magnolia	15,000
Upper Beaver Lake	1101001	A	4K	Turbidity, Pathogen indicators	Unknown	Low	Beaver Water District	262,000
Petit Jean River	11110204	011	3G	Turbidity	Unknown	Low	Danville	15,500
Blue Mountain Lake	11110204		3G	Turbidity	Surface Erosion	4A	Danville	14,200
Terre Noire Creek ²	8040103	002	2G	pH	Unknown	Low	Camden	20,250
Ouachita River	8040201	004	2D	Mercury	Unknown	4A	Camden	20,250
Current River ³	11010008	017	4G	Turbidity	Surface erosion	Medium	Pocahontas	8,200

¹ Beech Creek is within watershed for Lake Columbia

² Terre Noire Creek discharges into the Ouachita River watershed

³ Current River drains into the watershed for the Black River

ADH 3030(d) 2012 Table, continued

Waterbody	HUC	Reach	Planning Segment	Standard	Reason	ADEQ Priority	Affected Public Water System	Population Served
Cypress Creek ⁴	11110205	917	3D	Copper, Zinc	Agricultural	Low	Conway	55,000
E Fork Cadron Creek ⁵	11110205	002	3D	Turbidity	Surface erosion	4A	Conway	55,000
Chamberlain Creek ⁶	8040102	971	2F	pH, Al, Be, Cd, Cu, Ni, Zn, sulfates, TDS	Industrial point source, Resource extraction	High	Kimzey Malvern ⁶	7,500 21,000
Cove Creek ⁶	8040102	970	2F	pH, Cu, sulfates, TDS	Industrial point source, resource extraction	High	Kimzey, Malvern ⁶	7,500 21,000
Lucinda Creek ⁶	8040102	975	2F	pH, Cu, Zn, Al	Resource extraction	High	Kimzey Malvern ⁶	7,500 21,000
Greenbriar Creek ⁷	11010004	017	4F	Dissolved oxygen, pathogen indicators	Unknown	Low	Batesville, Southside	17,000 9,000
Short Mountain Creek	11110202	043	3H	Copper	Municipal point	High	Paris	82,000
D.C. Creek ⁸	8040102	923	2F	Zinc	Resource extraction	Low	Glenwood	4,000
West Fork White River ⁹	11010001	024	4K	Sulfates, TDS	Unknown	Medium	Beaver Water District	262,500
Dutch Creek ¹⁰	11110204	015	3G	Dissolved Oxygen, Turbidity	Unknown	Low	Danville	14,250
Saline River ¹¹	11140109	010	1C	Turbidity	Unknown	Low	Dierks	1,800

⁴ Cypress Creek discharges into Lake Brewer watershed.

⁵ E. Fork Cadron Creek discharges into Cadron Creek watershed.

⁶ Chamberlain Creek, Cove Creek, and Lucinda Creek discharge into the Ouachita River watershed.

⁷ Greenbriar Creek is within the watershed for the White River.

⁸ D.C. Creek is within the watershed for the Caddo River.

⁹ West Fork White River discharges into Beaver Lake watershed.

¹⁰ Dutch Creek is within the Petit Jean River watershed.

¹¹ Saline River flows through Dierks Lake and past intake.

ADH 303(d) 2012 Table, continued

Waterbody	HUC	Resch	Planning Segment	Standard	Reason	ADEQ Priority	Affected Public Water System	Population Served
Middle Fork Little Red River ¹²	11010014	027 028	4E	Pathogen Indicators	Unknown	4A	Community Heber Springs	67,000 23,000
South Fork Little Red River ¹²	11010014	036	4E	Mercury	Unknown	4A	Clinton	12,350

¹² The Middle and South Forks discharge into Gowers Ferry Lake.

ADEQ Response: Thank you, Mr. Stone, for your comment.

ADEQ appreciates the information in the table provided in your comments. Eight of the twenty seven streams have completed TMDL's and five have been assigned high priority. The remaining 14 will be evaluated during the next monitoring period to determine the appropriate priority listing. This will potentially provide for increased monitoring of the stream segment.

Also in your letter you listed several recommendations you feel that ADEQ could take to place a priority on drinking water sources. We appreciate your suggestions for improving the programs ADEQ administers. However, your recommendation seems to be premised on the incorrect assumption that drinking water protection is not a priority for ADEQ. ADEQ can assure you that protecting all of the designated uses, including the drinking water use is a high priority and program mandate for this agency. One of the primary tenets of the Antidegradation Policy found in the Arkansas Pollution Control and Ecology Commission (APC&EC) Regulation No. 2 and in the Act is the directive to maintain and protect existing in-stream water uses, which includes the domestic drinking water use. One of the ways we use to protect the domestic drinking water use is by assuring that all waters are "Fishable and Swimmable". Whether or not a water body has a thriving and diverse aquatic community (fishery) and is safe for primary human contact is a prime indicator of its suitability for domestic water use. All surface waters of the state have been designated for specific uses. In those instances where waters are classified for multiple uses and different criteria are specified for each use, the criteria to protect the most sensitive use is applicable. In most cases, if the criterion to protect the most sensitive water use is applied, the other uses should be protected as well. These uses include the designation of a domestic water supply use in all streams, unless this specific designated use has been removed through an appropriate use attainability analysis and a change in the water quality standards adopted by the APC&EC and approved by EPA.

ADH suggests increased water quality monitoring. ADEQ currently monitors over 144 fixed ambient stations where samples are collected once per month. In addition, the State is broken in quadrants and another 48 site-specific sampling location (our roving monitoring network) are sampled for water quality and biological parameters as well. In CY 2011, ADEQ collected and analyzed 2583 samples around the State. Without additional resources, ADEQ cannot increase this effort. ADEQ seeks and solicits water quality data from local, state and federal agencies and other entities as part of our evaluation of the water resources of the State and any qualified data you can collect and provide during the development of future 303(d) lists will be appreciated. In addition, with assistance from ADH, several municipalities provided data that was useful in the development of the 2010 303(d) list.

ADH also suggests identifying and correcting sources of any impairment. These have always been a high priority of ADEQ. As you may know, the most significant water quality impairment we see around the state is due to sediment. In most cases it is difficult to determine the sources of this impairment. Sources may include unpaved county roads, erosion from disturbed areas, stream bank erosion and erosion from changes in land use patterns. Because these sources are not discrete pollutant sources, identifying and correcting them is often difficult. Correcting sources of impairment requires implementing proper controls, both for point sources and nonpoint sources of pollution. Controls are frequently expensive and often controversial. Point

sources controls are used where applicable water quality standards support the controls. Nonpoint sources controls are difficult to implement because requiring such controls generally falls outside the jurisdiction of ADEQ. As you may be aware, ANRC controls the coordination and funding of nonpoint sources pollution controls in Arkansas. However, ADEQ and ANRC maintain close communication in the implementation of Section 319 program actions.

With reference to your suggestions for permits, one recommendation was for “stricter effluent standards”. ADEQ assumes that ADH suggests more stringent effluent limits. ADEQ strives to issue permits with effluent limits and conditions that protect all the designated uses of a water body. As you are aware, ADEQ provides ADH a link to every draft permit prior to issuance. ADH has provided, and I hope will continue to provide, ADEQ with information concerning source waters that may be impacted by proposed permitted facilities. ADH also suggests heightened scrutiny of permitted facilities’ operation and monitoring reports. We have approximately 6650 active water permits which submit discharge monitoring reports for ADEQ review every month. In addition, the Water Division performed 2609 inspections and 653 complaint investigations during CY 2011 and this significant level of effort was accomplished with a staff of 21 inspectors. We are sure ADH can appreciate the difficulty of increasing scrutiny of our regulated facilities with current resources. Nonetheless, I will ask staff to identify the permitted facilities in the segments identified above and consider the need and opportunity for additional review.

ADEQ agrees that protecting the drinking water supplies for Arkansas’s citizens is a top priority. ADEQ will review the list of impaired waterbodies and make priority revisions as needed. ADEQ must work within resource constraints when identifying areas for increased monitoring and TMDL development. ADEQ and ADH must work with and coordinate with those other state and federal agencies that are responsible for implementing restoration programs in listed waterbodies.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.

13. The following comments were received by Farm Bureau of Arkansas



February 17, 2012

Arkansas Department of Environmental Quality
Attn: Mr. Jim Wise
Water Division
5301 Northshore Drive
North Little Rock, AR 72118

Re: Arkansas' Draft 2012 Impaired Waters (303d) List

Mr. Wise:

The Arkansas Farm Bureau Federation welcomes the opportunity to submit comments regarding the Draft 2012 Impaired Waterbodies List (303(d) List.

General – It is our understanding that many of the sources of impairment were determined by attributing the source based on the majority land use in that basin. Majority land use is not a sound scientific method of determining a source of pollutants. It is an over simplification and an unproven hypothesis. We request that unless scientific studies have been completed that have specifically identified a source of impairment that those sources be listed as “Unknown”.

Lead & Zinc – There are many other areas throughout Arkansas with almost identical types of agriculture production/practices that are not listed for lead and zinc impairment. Therefore, it does not make sense to list agriculture as the source of impairment in White, Woodruff, Prairie, and Jackson counties.

Pathogens – It is not scientifically defensible to list agriculture as the source of pathogens in the Illinois River and the Muddy Fork when there could be many sources of pathogens not related to the majority land use. These could also be wildlife and leaking septic systems in rural/agriculture areas.

Chlorides & Total Dissolved Solids (TDS) – It is our understanding that it was known the TDS standards were overly restrictive when originally established. It was anticipated they would have to be revised. Hence, there have been over one-hundred (100) third party rule making requests to modify the TDS standards since their creation. The Regulation 2 triennial review process will begin in 2013 and will likely include a rigorous evaluation of the Chloride and TDS standards, likely resulting in more realistic standards statewide. Sources should be listed as “unknown” until such time the evaluation is completed.

Again, thank you for the opportunity to provide input into this process. Please feel free to contact us with any questions or comments.

Respectfully submitted,

Evan A. Teague, P.E.
Environmental Specialist

ADEQ Response:

Thank you, Mr. Teague, for your comments. EPA indicates that States need to identify probable sources of impairment for each impaired waterbody. Arkansas's Assessment Methodology states that a variety of parameters will be examined when determining the probable source of impairment including, but not limited to, field observations, land use maps, point source locations, nonpoint source assessment reports, special studies, knowledge of field personnel familiar with the water body, and best professional judgment.

The predominant land use abutting the stream sites in White, Woodruff, Prairie, and Jackson Counties is agriculture. Varying soils throughout the state and other factors such as best management practices contribute to varying water quality impairments. The sources for impairments in these counties will remain unchanged.

Agriculture is the predominate land use surrounding the monitoring sites on the Illinois River and Muddy Fork. This area is predominantly pasture with land application of animal waste. There are few to no rural homes near or just upstream of the sites on these streams. The sources for the Illinois River and Muddy Fork impairments will remain unchanged.

Sources for chlorides and TDS will remain unchanged. The stringency of the standard does not change the probable source contributing to the impairment. Furthermore, ADEQ has found no documentation to support that "it was known the TDS standards were overly restrictive when originally established." and "it was anticipated they would have to be revised." The standards were established using reference streams or using site-specific data from individual streams to determine the level of water quality necessary to protect and maintain the existing uses in Arkansas streams.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.

14. The following comments were received by the City of Harrison.

HH-16242 1.3.1b Form 1

HH-16242 68-48-4

P.1/4



CITY OF HARRISON
DEPARTMENT OF PUBLIC WORKS

P.O. Box 1715
Harrison, AR 72602
(870) 741-3434
Fax (870) 741-0318

Wade W. Phillips, P.E.
Director of
Public Works

FAX

TO: JIM WISE FROM: WADE PHILLIPS
FAX NO: 501/682-0880 DATE: 02/17/2012
PHONE NO: _____ PAGES: 4 (Including Cover)
RE: 2012 303(d) List CC: _____

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply

Comments: _____
Please acknowledge receipt by email
to publicworks@cityofharrison.com

Thank you.



CITY OF HARRISON
DEPARTMENT OF PUBLIC WORKS

U.O. Box 1715
Harrison, AR 72002
(870) 741-3484
Fax (870) 741-0318

Wade W. Phillips, P.E.
Director of
Public Works

February 17, 2012

SENT VIA FACSIMILE

Mr. Jim Wise
Arkansas Department of Environmental Quality
Water Division, 5301 Northshore Drive
North Little Rock, Arkansas 72118
Fax: 501-682-3880

RE: City of Harrison Requests & Comments
Proposed 2012 Impaired Waterbodies List (303(d) List)
Crooked Creek (Reach 049; Segment 4); Boone County

Mr. Wise:

We have received the ADEQ's Notice of Public Hearing, Comment Period and reviewed the proposed 2012 303(d) List and other documents/information as presented at the web address provided by the ADEQ in the Notice.

As you are aware, the City of Harrison has expressed concerns regarding a recent draft TMDL for Crooked Creek that attempts to establish limits for Chlorides, Sulfates, and Total Dissolved Solids (TDS) for Reach 049, Segment 4 of Crooked Creek in Boone County. Although we fully understand that this particular comment period does not directly relate to the proposed TMDL or future actions related to establishing a TMDL for the referenced reach and segment of Crooked Creek, we are of the opinion that the current listing of Crooked Creek on the 303(d) List should be reviewed for the purpose of re-categorization or removal from the list. Furthermore, we understand that the listing of the referenced reach and segment is not a new listing and that it was originally listed in 2004. As such, we respectfully submit the following comments and observations for consideration:

- 1) The 2012 listing of the referenced reach and segment of Crooked Creek does not identify an "Impaired Use" (i.e. fisheries, primary contact, etc.) We find it difficult to evaluate the listed causes of impairment without being able to definitively understand what "use" is being impaired. The failure to identify the Impaired Use coupled with a Priority classification of "Low" leads us to believe that the creek is supporting all designated uses and was listed simply because the Causes of Impairment levels exceeded general water quality standards that were established for the creek by APC&EC Regulation No. 2. We respectfully request the following clarifications pertaining to the listing of the referenced reach and segment.
 - a. Does the referenced reach and segment currently support all designated uses? If not, what uses are currently unsupported and by what means was it determined that those uses are unsupported?

Mr. Jim Wise
February 17, 2012
Page 2

- b. Other than not attaining water quality standards for chlorides, sulfates, and TDS, are there other reasons that the referenced reach and segment were listed?
 - c. We doubt the validity of the Regulation No. 2 water quality standards used to identify the Causes of Impairment and subsequent listing of the referenced reach and segment. Specifically, we question the parameters used as follows:
 - i. Chloride: The water quality standard utilized for listing Crooked Creek was 20 mg/L. We question the validity of this value. The current EPA national criterion for chloride for aquatic life protection is as follows: 860 mg/L acute and 230 mg/L chronic (Ambient Water Quality Criteria for Chloride – 1988). What justification is there for a water quality standard in excess of ten times more restrictive than criteria established by the EPA?
 - ii. Sulfate: The water quality standard utilized for listing Crooked was 20 mg/L for sulfate. There is currently no national standard for sulfate that we are aware of; however, we have been unable to find any information to indicate that the utilized standards are warranted with respect to protection of aquatic life or preservation of water quality for any of the creeks intended uses. In fact, our research indicates that sulfate standards should be based on water chemistry conditions which may significantly alter sulfate toxicity. Reference is made to recent changes to water quality standards in other states, specifically Iowa and Illinois.
 - iii. TDS: The water quality criteria utilized for listing Crooked Creek was 200 mg/L. We strongly question the validity of such a number for several reasons. By definition, TDS is the measure of all dissolved solids yet the toxicity of TDS is determined by its individual constituents, particularly chlorides and sulfates. We contend that much of the TDS in the creek is naturally occurring. It is our opinion that the use of a TDS standard should be eliminated and replaced with reasonable, justifiable chloride and sulfate water quality standards. Furthermore, we have found no information to indicate that a 200 mg/L standard specific to TDS as a whole is warranted for the protection of aquatic life or preservation of water quality to support the intended uses for the creek. To date, we have been provided with no information detailing scientific justification for the water quality standards established by Regulation No. 2. As such, we request a copy of any and all stream studies that were utilized to establish site specific water quality standards for the referenced reach and segment of Crooked Creek. If there are no studies available detailing the methods and justifications used to develop the water quality standards, it is our opinion that the creek should be “de-listed” until such time the ADEQ is able to complete adequate studies justifying the water quality standards.
- 2) The 2012 listing of the referenced reach and segment lists the source for all three Causes of Impairment as “Unknown”. It is reasonable to ascertain that the sources cannot be identified because levels in excess of the Regulation No. 2 water quality standards may very well be naturally occurring. We request that consideration be given to re-categorize the Creek’s listing from Category 5 to Category 4c until such time that the sources can be identified and it is verified that levels exceeding water quality standards are pollutant caused.

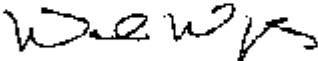
Mr. Jim Wise
February 17, 2012
Page 3

- 3) It is the City's opinion that the responsibility to develop reasonable and scientifically justified water quality standards falls to the ADEQ. As such, we request that the ADEQ revise the water quality standards for the referenced reach and segment of Crooked Creek by completing a Use Attainability Analysis (UAA) (as provided in Section 101 (a)(2) of the Clean Water Act).
- 4) It is our opinion that completion of the above requested UAA will result in the "de-listing" of the creek; therefore, we request that a notation be added to the 2012 303(d) list (and subsequent listings) stating the impairment classification for the referenced reach and segment of Crooked Creek is under review and that the 13-year time limit for completing a TMDL is on-hold.

Please do not misconstrue our comments and concerns regarding the continued inclusion of Crooked Creek on the 303(d) list. The City of Harrison recognizes the vital importance of maintaining water quality in the creek and is committed to working with the ADEQ and EPA to preserve and protect one of our community's most important natural resources. We simply want to make certain that water quality standards developed and utilized are consistent and based on sound scientific data.

We appreciate the opportunity to comment on this important issue and look forward to receiving the requested information.

Sincerely,



Wade W. Phillips, PE, LEED AP
Director of Public Works

cc: Mayor Jeff Crockett, City of Harrison
Ms. Katherine Catlin, Harrison Wastewater Manager
Mr. Bruce Richardson, Resource Conservation Manager
Judge James Norton, Boone County

ADEQ Response:

Thank you Mr. Phillips for your comments.

1. The City of Harrison is correct in that there is not a designated use impairment associated with the listed stream segments of Crooked Creek. ADEQ did not fail to identify a designated use as being impaired. On the contrary, ADEQ recognizes that all of the designated uses in Crooked Creek are being attained. The segments are listed solely because the water quality of the stream segments does not meet the assessment criteria outlined in the assessment methodology, i.e. more than ten percent of the samples collected exceed the water quality standards for chloride, sulfate, and total dissolved solids (TDS). Furthermore 40 CFR 130.7(b)(3) states that a standard can be a "numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements"; therefore an exceedance of a standard can be exceedance of the numeric criteria alone.

a. All Designated uses are being attained; however, as stated above a stream segment can be listed for exceedances in numeric criteria. Crooked Creek is listed based on exceedances of the site specific standards for chlorides, sulfates, and TDS.

b. The stream segment -049 of Crooked Creek was solely listed for exceeding site specific minerals standards for chlorides, sulfates, and TDS.

c. The site specific mineral standards for Chlorides, Sulfates, and TDS were first established in the early 1970s, based on water quality data collected from Crooked Creek.

i. The site specific chloride standard for Crooked Creek was developed in the 1970's using data collected using sound scientific principles, approved by the US Environmental Protection Agency (USEPA) and repeatedly approved by EPA over the past four decades of Regulation No. 2 revisions. ADEQ recognizes the EPA national criteria for chlorides of 860 mg/L acute and 230 mg/L chronic for aquatic life protection; however, these values represent the concentration of chloride that aquatic life can tolerate before mortality and effects occur to the growth and propagation of the most sensitive species in an aquatic community. Furthermore, 40 CFR§131.4(a) provides States the opportunity to set standards more strict than a federal water quality standard, as is the case for Crooked Creek and many other streams in Arkansas.

ii. The site specific sulfate standard for Crooked Creek was developed in the 1970's using data collected using sound scientific principles, approved by the US Environmental Protection Agency (USEPA) and repeatedly approved by EPA over the past four decades of Regulation No. 2 revisions. The ADEQ recognizes that the EPA has not listed national criteria for sulfates; however as exemplified above, if such a standard was established it would be for a toxic threshold.

iii. The site specific TDS standard for Crooked Creek was developed in the 1970's using data collected using sound scientific principles, approved by the US Environmental Protection Agency (USEPA) and repeatedly approved by EPA over the past four decades of Regulation No. 2 revisions. Again, 40 CFR§131.4(a) provides States the opportunity to set standards more strict than a federal water quality standard, as is the case for Crooked Creek and many other streams in Arkansas. ADEQ is required to assess streams based on established standards. Upon assessing segment -049 of Crooked Creek to its site-specific standard, the stream is impaired for TDS, chlorides and sulfates; therefore ADEQ cannot de-list the stream.

ADEQ recently (January 2012) collected water samples in Crooked Creek a few miles above the City of Harrison. The results of the mineral analysis were as follows: Chlorides were 6.14 mg/L, well below the standard in Regulation No.2 of 20 mg/L; Sulfates were 6.85 mg/L, well below the standard in Regulation No. 2 of 20 mg/L; and total dissolved solids were 142 mg/L, well below the standard in Regulation No. 2 of 200 mg/L. These results indicate that Crooked Creek's current water quality standard for minerals are appropriate and attainable. The chart below lists the data collected from ADEQ's monitoring stations on Crooked Creek during the last five years:

Site	Chloride		Sulfate		TDS		Period of Record
	# Exceedences	% Exceedence	# Exceedences	% Exceedence	# Exceedences	% Exceedence	
WHI0048A	0 of 4	0.00%	0 of 4	0.00%	1 of 4	25.00%	4/1/2006-3/3/2011
WHI0048B	0 of 32	0.00%	0 of 32	0.00%	13 of 32	40.63%	4/1/2006-3/3/2011
WHI0048C	0 of 37	0.00%	0 of 37	0.00%	10 of 37	27.03%	4/1/2006-3/3/2011
WHI0067	0 of 57	0.00%	0 of 57	0.00%	38	66.67%	4/1/2006-3/3/2011
WHI0066	8 of 59	13.56%	7 of 59	11.86%	42 of 59	71.19%	4/1/2006-3/3/2011

Based on this recent analysis of the mineral criteria in Crooked Creek by ADEQ, we do not anticipate “de-listing” Crooked Creek. As stated above, Crooked Creek is currently meeting all of its designated uses and attaining the minerals criteria above Harrison, AR

2. The City of Harrison is correct in that ADEQ cannot identify a “sole source” or “land use practice” causing the elevated mineral concentrations in Crooked Creek. However, since the standards were first established in the early 1970s, based on water quality data collected from Crooked Creek, there has been a change in the land use in the watershed, from forestry to pasture, and an increase in urbanization. Each of these could surely have caused a gradual increase in the minerals concentrations of Crooked Creek over the past 40 years. Even though the general consensus is that the current mineral concentrations in Crooked Creek are more naturally occurring, human influence cannot be totally ruled out.

3. ADEQ acknowledges this comment; however, this comment (“...that ADEQ revise the water quality standards for the referenced reach and segment of Crooked Creek by completing a Use Attainability Analysis (UAA)...”) refers to a procedural method as established by the Environmental Protection Agency (EPA) to allow third parties to petition the Arkansas Pollution Control and Ecology Commission to establish use variations to the Commission’s Regulation No.2. Pursuant to the Code of Federal Regulations, 40 CFR § 131.3 Definitions, (e) Existing Uses are those uses specified in water quality standards for each water body on or after November 28, 1975, whether or not they are included in the water quality standards, (f) Designated uses are those uses specified in water quality standards for each water body or segment whether or not they are being attained, and (g) Use Attainability Analysis is a structured scientific assessment of factors affecting the attainment of the use which may include physical, chemical, biological, and economic factors as described in § 131.10(g). 40 CFR § 131.10 (g), States may remove a designated use which is not an existing use, as defined in § 131.3, or establish sub-categories of a use if the State can demonstrate that attaining the designated use is not feasible, (h) States may not remove designated uses if: (1) They are existing uses, as defined in § 131.3, unless a use requiring more stringent criteria is added, or (2) Such uses will be attained by implementing effluent limits required under sections 301(b) and 306 of the Clean Water Act and by implementing cost-effective and reasonable best management practices for nonpoint source control.

Crooked Creek is currently meeting all of its designated uses.

4. Pursuant to 40 CFR § 130.7(b)(6) “Each state shall provide documentation to the Regional Administrator to support the State’s determination to list or not list its waters as required by §§130.7(b)(1) and 130.7(b)(2) and shall include at a minimum: (i) a description of the methodology used to develop the list; and (ii) a description of the data and information used to identify waters, including a description of the data and information used by the State as required by § 130.7(b)(5); and (iii) a rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters described in §130.7(b)(5); and (iv) any other reasonable information requested by the Regional Administrator...” ADEQ has had monitoring stations established on Crooked Creek for a number of years. In keeping with the Assessment Methodology and the requirements of 40 CFR § 130.7(b)(6), ADEQ has evaluated all data collected at our monitoring stations and all other existing and readily available data for Crooked Creek and has determined the stream has been impaired for minerals since 2004. No new information has been collected or submitted to ADEQ that would justify a decision to remove Crooked Creek from the list of impaired waters. EPA policy and guidance suggests that TMDLs must be completed for impaired waters with 8 – 13 years from the first listing of the water body. In keeping with EPA policy and guidance, a TMDL should be completed for Crooked Creek by 2017.

Unless new information becomes available to support the removal of Crooked Creek from the impaired water bodies list or until such time a third party petitions the Arkansas Pollution Control and Ecology Commission (APC&EC) to establish new criteria (and if that new criteria is adopted by the Commission and approved by EPA), ADEQ has to meet the requirements of 40 CFR § 130.7(b)(6) as described above and continue its listing decision as it pertains to Crooked Creek. Pursuant to 40 CFR § 130.7(d)(2), “The Regional Administrator shall either approve or disapprove such listing and loadings not later than 30 days after the date of submission. The Regional Administrator shall approve a list developed under §130.7(b) that is submitted after the effective date of this rule only if it meets the requirements of §130.7(b). If the Regional Administrator approves such listing and loadings, the State shall incorporate them into its current WQM Plan. If the Regional Administrator disapproves such listing and loadings, he shall, not later than 30 days after the date of such disapproval, identify such waters in such State and establish such loads for such waters as determined necessary to implement applicable WQS...” There is no provision in the Code of Federal regulations that allows for listing a water body as “under review”.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.

15. The following comments were received by the Honorable James Norton, Boone County Judge.

FEB-15-2012 10:05A FROM:

TO:15016820880

P:1/3

FAX

DATE: 2-15-12

TO: *AD&Q Director Teresa Marks and
Jim Wise, Water Division
501-682-0880*

**FROM: Boone County Judge
James Norton
870-741-2855**

PAGES (Incl. this sheet): 3

SUBJECT: *Comments & requests*

JAMES NORTON
BOONE COUNTY JUDGE

PHONE: 870-741-5760
February 15, 2012

100 N. MAIN ST., SUITE 300
HARRISON, ARKANSAS 72601

FAX: 870-741-2855

ADEQ Director Teresa Marks and Jim Wise, Water Division
5301 Northshore Drive
North Little Rock, AR 72118
Fax Number: 501-682-0880

Re: Official Request and Public Comment pertaining to
ADEQ's 2012 Impaired Waterbodies List (303 (d) list).
And also pertaining to the Public Listening Session for Revisions to Reg. 2 WQS

Dear Ms. Marks and Mr. Wise:

Due to the recent action of the Arkansas Legislative Joint Performance Review and Agricultural committees to hear and instruct ADEQ pertaining to the withdrawal of ADEQ's proposal of TMDL program/projects on Crooked Creek on behalf of Newton, Boone and Marion counties, in the capacity of Boone County Judge, I am submitting the following points as official requests and comments:

1. Now that the Crooked Creek TMDL proposal has been officially acknowledged by EPA on February 8, 2012, as withdrawn with "no action" having been taken, on behalf of Boone County, it is our request and insistence in accordance with the provision of Section 101 (a) (2), et al of the Clean Water Act, that ADEQ perform a long overdue Use Attainability Analysis (UAA) on the Crooked Creek/Watershed to gain a truly scientific basis for standards, applying specifically to Crooked Creek and its watershed, which will accommodate the naturally occurring presence of mineral levels, (i.e. chlorides, sulfates, TDS, etc.) whether with numeric or narrative criteria.
2. And because the unique and naturally-occurring qualities of Crooked Creek have made it an ongoing pristine stream of fishing, swimming, agricultural and domestic value for both private and public use long before and continuing without the need for state or federal government intervention or control, it is further requested and expected that a **"sub-category use which requires less stringent criteria"** be adopted for Crooked Creek/Watershed, as is also specified in Section 101 (a) (2) of the Clean Water Act and is further provided for in Regulation No. 2 of Arkansas Water Quality Standards at 2.302, et seq.

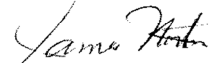
Page 2

February 15, 2010

3. Because **such action**, as described above will, when finalized, **bring about the de-listing of Crooked Creek** on the Impaired Waterbodies List (303 (d) list), as it is presently listed, **it is therefore requested and expected that a special notation be attached to the 2012 and subsequent proposed Impaired Waterbodies Listing of Crooked Creek before it is submitted to EPA for approval. That special notation should read “pending de-listing action presently underway in accordance with CWA Section 101 (a) (2); Reg. No. 2 at 2.302 WQS”; and that special notation should appear in the 2012 and an subsequent 303 (d) list report at the entries of Crooked Creek and any other impaired waterbody listing that is listed as cause “unknown”, especially if it is requested so by any commenter for other streams.** It is imperative that equal application of the law be honored and adhered to in these matters of such huge impact to the economic, social and cultural local concerns of our citizens and property owners. Because as the Honorable Co-Chairman Representative Garner so aptly stated on January 11, 2012 at the Joint Public Review committee hearing of these matters, that **“ADEQ must cease putting the bureaucracy ahead of the science”**. If an impaired listing is for an unknown cause, it should be noted as “pending...” until the necessary science can be provided to prove either that a waterbody should be listed as impaired or de-listed from impaired, to prevent unnecessary and costly remedial actions being taken or enforced by state or federal agencies. **Also, as long as a waterbody listing is “pending...” while lawful and scientific analysis are awaiting performance and completion, the counting of the 13-year time limit for TMDL or other remedial action must be put on hold until listing or de-listing is ascertained. (Such “on-hold” time limits should also be included in the special notations of the 2012 and subsequent Impaired Waterbodies List (303 (d) list).**
4. It is finally requested that when ADEQ shall begin to conduct the Use Attainability Analysis for Crooked Creek and prepare a sub-category use for it which requires less stringent criteria, that all monitoring of the stream and all discussions and decisions by ADEQ be noticed to my office and/or my appointed designee *prior* to initiation of the data gathering/monitoring, discussion, or decisions so that we may have local monitors present for the processes of the Use Attainability Analysis throughout and until the completion of the conducting of the Analysis, if we so choose. Please provide a 7-day notification to us of each action of the UAA process, and also copies of all records produced for the Analysis.

Please enter this comment into the record in its entirety without editing or summarizing it in any fashion. Thank you for your attention to these requests.

Sincerely,



James Norton
Boone County Judge

February 17, 2012

Attention: ADEQ Director Marks and Water Division Chief Jim Wise
C/o fax no: 501-682-0880

Pertaining to the 2012 and all Impaired Listings of Crooked Creek:
*We the undersigned wish to echo the requests and comments of the attached
communication of the Boone County Judge James Norton
as our own comments
and in support of the Judge's statements
to be included in the
record of the Public Comments*

*pertaining to the 2012 Impaired Waterbodies (303(d)) Listings,
and to the Public Listening Session preceding Revision of Reg. 2
Please send verification to each name/address that this comment has been received,
timely date-stamped on its face, and entered into the record in its entirety, not being
edited or summarized in any manner.*

Name/Title	Address:
1. Steve Arvin	5458 Highway 392E, Harrison, AR 72601
2. Sonia Arvin	5458 Highway 392E Harrison AR 72601
3. Lynne Lott	108 Rickey Dr. Harrison, AR 72601
4. Lonny C. Burke	1602 Hwy 7N Harrison, AR 72601
5. Ralph Guyon	4368 Rock Springs Rd. HARRISON, AR 72601
6. Wendy Michel	7466 Hwy 62 East Harrison, ARK 72601
7. William Michel	7466 Hwy 62 E Harrison, AR 72601
8. BATYAN HOLMES	552 SANSING Hollow Rd HARRISON 72601
9. John Holman	552 SANSING Hollow Rd HARRISON
10. Carolyn Bennett	5594 Nickery Hill Ln, Harrison, AR 72601
11. Sherman R. ERVIN	P.O. Box 1307, Harrison, AR 72602
12. Margaret H. Ervin	P.O. Box 1307 Harrison AR 72602
13.	
14.	
15.	
16.	
17.	

February 17, 2012

Attention: ADEQ Director Marks and Water Division Chief Jim Wise
C/o fax no: 501-682-0880

Pertaining to the 2012 and all Impaired Listings of Crooked Creek:
We the undersigned wish to echo the requests and comments of the attached
communication of the Boone County Judge James Norton
as our own comments
and in support of the Judge's statements
to be included in the
record of the Public Comments
pertaining to the 2012 Impaired Waterbodies (303(d)) Listings,
and to the Public Listening Session preceding Revision of Reg. 2
Please send verification to each name/address that this comment has been received,
timely date-stamped on its face, and entered into the record in its entirety, not being
edited or summarized in any manner.

Name/Title	Address:
1. Betty Knight	8036 Hwy 392 Harrison Ark
2. Kathy Valentine	3876 Silver Valley Rd. Harrison AR 72601
3. GEORGE GERAR	613 S. CHESTNUT ST HARRISON AR 72601
4. William Claydon	1917 Naudina Apt. 4 Harrison AR 72601
5. Barbara G. Day	605 S. Liberty St. Harrison AR 72601
6. GEORGE A. DAY	605 S. LIBERTY ST HARRISON, AR. 72601
7. Ed Knight	7595 SAUNDERS CEM. RD. HARRISON AR 72601
8. Frank W. Hampson	601 W. Ridge Harrison, AR
9. JERRY E. SCOTT	6880 FAY HODGE RD HARRISON AR 72601
10. Carole E. Scott	6880 Fay Hodge Rd. Harrison AR. 72601
11.	
12.	
13.	
14.	
15.	
16.	
17.	

February 17, 2012

Attention: ADEQ Director Marks and Water Division Chief Jim Wise
C/o fax no: 501-682-0880

Pertaining to the 2012 and all Impaired Listings of Crooked Creek:
*We the undersigned wish to echo the requests and comments of the attached
communication of the Boone County Judge James Norton
as our own comments*

*and in support of the Judge's statements
to be included in the
record of the Public Comments*

*pertaining to the 2012 Impaired Waterbodies (303(d)) Listings,
and to the Public Listening Session preceding Revision of Reg. 2*

*Please send verification to each name/address that this comment has been received,
timely date-stamped on its face, and entered into the record in its entirety, not being
edited or summarized in any manner.*

Name/Title

Address:

1. *Connie Burks* *1602 Hwy 7 North Harrison, Ark
72601*
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.

ADEQ Response:

The following responds not only to Judge Norton's comments but also those joining his comments as listed above.

Thank you, Judge Norton, and all of the citizens who support Judge Norton's comments.

Response No. 1 to Judge Norton's Letter dated February 15, 2012.

ADEQ acknowledges this comment; however, this comment ("...that ADEQ perform a long overdue Use Attainability Analysis on Crooked Creek...") refers to a procedural method as established by the Environmental Protection Agency (EPA) to allow use variations to the State's water quality standards. Arkansas law allows third-parties to petition the Arkansas Pollution Control and Ecology Commission to adopt these use variations Ark. Code Ann. § 8-4-202(c)(1), APC&EC Regulations No. 2 and 8.

Pursuant to 40 C.F.R. § 131.10(g), States may remove a designated use which is not an existing use, as defined in § 131.3, or establish sub-categories of a use if the State can demonstrate that attaining the designated use is not feasible. However, States may not remove designated uses if: (1) They are existing uses, as defined in § 131.3, unless a use requiring more stringent criteria is added, or (2) Such uses will be attained by implementing effluent limits required under sections 301(b) and 306 of the Clean Water Act and by implementing cost-effective and reasonable best management practices for nonpoint source control.

Crooked Creek is currently meeting all of its designated uses. In addition, while the commenter referenced both the 2012 Impaired Waterbodies List and the public listening sessions for Regulation No. 2, with his specific comments, the only document that was formally opened for public comment was the 2012 Impaired Waterbodies List. Comment No.1 does not specifically pertain to the 2012 Impaired Waterbodies List which was public noticed for public comment.

Response No. 2 to Judge Norton's letter dated February 15, 2012

ADEQ acknowledges this comment; however, this comment ("...it is further requested and expected that a sub-category use which requires less stringent criteria be adopted for Crooked Creek...") again refers to a procedural method as established by EPA. However, as stated in Response No. 1 above, states can only remove a designated use or establish a sub-category of use if it is not an existing use. Crooked Creek is currently meeting all of its designated uses. All of its designated uses are existing uses. Therefore it is not appropriate to establish a sub-category of a use for Crooked Creek. Further, this comment does not pertain to the 2012 Impaired Waterbodies List which was public noticed for public comment.

Response No. 3 to Judge Norton's letter dated February 15, 2012

ADEQ acknowledges this comment ("...it is therefore requested and expected that a special notation be attached to the 2012 and subsequent proposed Impaired Waterbodies Listing of Crooked Creek before it is submitted to EPA for approval. That special notation should read pending de-listing action presently underway in accordance with the CWA Section 101(a)(2);");

Reg No.2 at 2.302 WQS and that special notation should appear in the 2012 and subsequent 303(d) list report at the entries of Crooked Creek and other impaired water body listing that is listed as cause “unknown”, especially if it is requested by the commenter for other streams.” “... Also, as long as a water body listing is pending while lawful and scientific analysis are awaiting performance and completion, the counting of the 13-year time limit for TMDL or other remedial action must be put on hold until listing or de-listing is ascertained...”. Pursuant to 40 C.F.R. § 130.7(b)(6) “Each state shall provide documentation to the Regional Administrator to support the State’s determination to list or not list its waters as required by §§130.7(b)(1) and 130.7(b)(2) and shall include at a minimum: (i) a description of the methodology used to develop the list; and (ii) a description of the data and information used to identify waters, including a description of the data and information used by the State as required by § 130.7(b)(5); and (iii) a rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters described in §130.7(b)(5); and (iv) any other reasonable information requested by the Regional Administrator...” ADEQ has had monitoring stations established on Crooked Creek for a number of years. In keeping with the Assessment Methodology and the requirements of 40 C.F.R. § 130.7(b)(6), ADEQ has evaluated all data collected at our monitoring stations and all other existing and readily available data for Crooked Creek and has determined the stream has been impaired for minerals since 2004. No new information has been collected or submitted to ADEQ that would justify a decision to remove Crooked Creek from the list of impaired waters. EPA policy and guidance suggests that TMDLs must be completed for impaired waters within 8 – 13 years from the first listing of the water body. In keeping with EPA policy and guidance, a TMDL should be completed for Crooked Creek by 2017. Unless new information becomes available to support the removal of Crooked Creek from the impaired water bodies list or until such time a third party petitions the APC&EC to establish new criteria (and if that new criteria is adopted by the APC&EC and approved by EPA), ADEQ has to meet the requirements of 40 C.F.R. § 130.7(b)(6) as described above and continue its listing decision as it pertains to Crooked Creek.

Pursuant to 40 C.F.R. § 130.7(d)(2), “The Regional Administrator shall either approve or disapprove such listing and loadings not later than 30 days after the date of submission. The Regional Administrator shall approve a list developed under § 130.7(b) that is submitted after the effective date of this rule only if it meets the requirements of § 130.7(b). If the Regional Administrator approves such listing and loadings, the State shall incorporate them into its current WQM Plan. If the Regional Administrator disapproves such listing and loadings, he shall, not later than 30 days after the date of such disapproval, identify such waters in such State and establish such loads for such waters as determined necessary to implement applicable WQS...” There is no provision in the Code of Federal regulations that allows for listing a water body as “pending.”

Response No.4 to Judge Norton’s letter dated February 15, 2012

ADEQ acknowledges the comment. ADEQ recently (January 2012) collected water samples in Crooked Creek a few miles above the City of Harrison. The results of the mineral analysis were as follows: Chlorides were 6.14 mg/L, well below the standard in Regulation No.2 of 20 mg/L; Sulfates were 6.85 mg/L, well below the standard in Regulation No. 2 of 20 mg/L; and total dissolved solids were 142 mg/L, well below the standard in Regulation No. 2 of 200 mg/L.

These results indicate that Crooked Creek's current water quality standard for minerals are appropriate and attainable. The chart below lists the data collected from ADEQ's monitoring stations on Crooked Creek during the last five years:

Site	Chloride		Sulfate		TDS		Period of Record
	# Exceedences	% Exceedence	# Exceedences	% Exceedence	# Exceedences	% Exceedence	
WHI0048A	0 of 4	0.00%	0 of 4	0.00%	1 of 4	25.00%	4/1/2006-3/3/2011
WHI0048B	0 of 32	0.00%	0 of 32	0.00%	13 of 32	40.63%	4/1/2006-3/3/2011
WHI0048C	0 of 37	0.00%	0 of 37	0.00%	10 of 37	27.03%	4/1/2006-3/3/2011
WHI0067	0 of 57	0.00%	0 of 57	0.00%	38	66.67%	4/1/2006-3/3/2011
WHI0066	8 of 59	13.56%	7 of 59	11.86%	42 of 59	71.19%	4/1/2006-3/3/2011

WHI0048A - Crooked Creek at Hwy 14 near Yellville

WHI0048B - Crooked Creek at south of Flippin

WHI0048C- Crooked Creek at Hwy 101 near Rea Valley

WHI0067 - Crooked Creek below Harrison

WHI0066 - Crooked Creek above Harrison

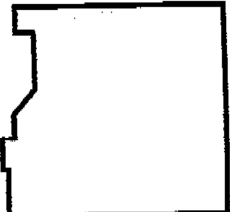
Based on this recent analysis of the mineral criteria in Crooked Creek and the limited resources available to ADEQ, we do not anticipate that we will carry out the request to conduct a Use Attainability Analysis (UAA) or develop a sub-category of a use for Crooked Creek. As stated above, Crooked Creek is currently meeting all of its designated uses. If a third party seeks to perform a UAA or develop a sub-category of a use for Crooked Creek, it will need to petition the APC&EC to carry out this rulemaking activity. If the Commission allows the third party to initiate rulemaking for Crooked Creek, a public notice will be issued and public participation will be provided at that time.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.

16. The following comments were received from the Honorable Warren Campbell, Newton County Judge:

02/17/2012 13:03

#0357 P.001/003

	<h2>Newton County Judge's Office</h2> <h3>Warren Campbell, Judge</h3>
<p>– PO BOX 435 / 100 East Court Street • Jasper, AR 72641 – Main Line : 870-446-5127 • Fax: 870-446-5902</p>	
Today's Date: <u>2-17-12</u>	Number of Pages (including cover sheet): <u>3</u>
To: <u>ADEA Director Teresa Marks</u>	
From: <u>Laetia</u>	
Remarks: _____ _____ _____ _____ _____ _____ _____	



**P.O. BOX 435
JASPER, ARKANSAS 72641**

**WARREN CAMPBELL
NEWTON COUNTY JUDGE**

**PHONE: 870-446-5127
FAX: 870-446-5902**

Phone: 870-434-5127
February 17, 2012

100 East Court Street
Jasper, Arkansas 72641

Fax: 870-446-5902

ADEQ Director Teresa Marks and Jim Wise, Water Division
5301 Northshore Drive
North Little Rock, Arkansas 72118
Fax: Number: 501-682-0880

Re: Official Request and Public Comment pertaining to
ADEQ's 2012 Impaired Waterbodies List- (303 (d) List).
And also pertaining to the Public Listening Session for Revisions to Reg. 2 WQS

Thank you for your recent withdrawal from EPA of ADEQ's proposes TMDL for
Crooked Creek watershed.

1. Please initiate the Use Attainability Analysis of Crooked Creek as provided for by Section 101 (a) (2) of the Clean Water Act, so that the standards can be revised for the purpose of "creating a sub-category use requiring less stringent criteria" in order to more accurately label the stream and thereby accept the naturally occurring causes as being a valuable part of the health and characteristics of the stream, rather than using unscientific procedures to accomplish unjustified programs and unnecessary upgrades. (See also Reg.2.302 and the Arkansas State's Continuing Planning Process (CPP).
2. Please make special notation in the 2012 Impaired Water body (303(d) List that Crooked Creek and all other waterbodies, which are listed for "unknown" causes are "pending being de-listed" upon completion of specific Use Attainability Analysis. Also note that the counting of the 13-years time limit for TMDL of other remedial action is put on hold until de-listing is completed. Make sure that all these notations appear beside each applicable listing in the 2012 proposed 303 (d) listing and all subsequent Impaired Waterbody Lists.
3. When ADEQ shall begin to conduct the Use Attainability Analysis for Crooked Creek and prepare a sub-category use for it which requires less stringent criteria, I request that

all monitoring of the stream and all discussions and decisions by ADEQ shall be noticed to my office and/or to my appointed designee prior to initiation of the data gathering/monitoring, discussions, or decisions so that we may have local monitors present for the processes of the Use Attainability Analysis throughout and until completion of the conducting of the Analysis, if we so choose. Please provide a 7-day notification to us of each action of the UAA process and also copies of all records produced for the Analysis as they are generated.

Please enter this comment into the record in its entirety without editing or summarizing of it in any way.
Respectfully,


Newton County Judge
Warren Campbell

ADEQ Response:

Thank you for your comments, Judge Campbell.

1. ADEQ acknowledges this comment; however, this comment ("...that ADEQ perform a long overdue Use Attainability Analysis on Crooked Creek...") refers to a procedural method as established by the Environmental Protection Agency (EPA) to allow use variations to the State's water quality standards. Arkansas law allows third-parties to petition the Arkansas Pollution Control and Ecology Commission to adopt these use variations. [code cite, APC&CE Regulations No. 2 and 8.]

Pursuant to 40 C.F.R. § 131.10(g), States may remove a designated use which is *not* an existing use, as defined in § 131.3, or establish sub-categories of a use if the State can demonstrate that attaining the designated use is not feasible. However, States may *not* remove designated uses if: (1) They are existing uses, as defined in § 131.3, unless a use requiring more stringent criteria is added, or (2) Such uses will be attained by implementing effluent limits required under sections 301(b) and 306 of the Clean Water Act and by implementing cost-effective and reasonable best management practices for nonpoint source control.

Crooked Creek is currently meeting all of its designated uses. In addition, while the commenter referenced both the 2012 Impaired Waterbodies List and the public listening sessions for

Regulation No. 2, with his specific comments, the only document that was formally opened for public comment was the 2012 Impaired Waterbodies List. Comment No.1 does not specifically pertain to the 2012 Impaired Waterbodies List which was public noticed for public comment.

2. ADEQ acknowledges this comment (that “a special notation in the 2012 Impaired Water body (303(d) List that Crooked Creek and other waterbodies which are listed for “unknown” causes...” “... Also note that counting of the 13-year time limit for TMDL or other remedial action must be put on hold until listing or de-listing is completed...”). Pursuant to 40 C.F.R. § 130.7(b)(6) “Each state shall provide documentation to the Regional Administrator to support the State’s determination to list or not list its waters as required by §§130.7(b)(1) and 130.7(b)(2) and shall include at a minimum: (i) a description of the methodology used to develop the list; and (ii) a description of the data and information used to identify waters, including a description of the data and information used by the State as required by § 130.7(b)(5); and (iii) a rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters described in §130.7(b)(5); and (iv) any other reasonable information requested by the Regional Administrator...” ADEQ has had monitoring stations established on Crooked Creek for a number of years. In keeping with the Assessment Methodology and the requirements of 40 C.F.R. § 130.7(b)(6), ADEQ has evaluated all data collected at our monitoring stations and all other existing and readily available data for Crooked Creek and has determined the stream has been impaired for minerals since 2004. No new information has been collected or submitted to ADEQ that would justify a decision to remove Crooked Creek from the list of impaired waters. EPA policy and guidance suggests that TMDLs must be completed for impaired waters within 8 – 13 years from the first listing of the water body. In keeping with EPA policy and guidance, a TMDL should be completed for Crooked Creek by 2017. Unless new information becomes available to support the removal of Crooked Creek from the impaired water bodies list or until such time a third party petitions the APC&EC to establish new criteria (and if that new criteria is adopted by the APC&EC and approved by EPA), ADEQ has to meet the requirements of 40 C.F.R. § 130.7(b)(6) as described above and continue its listing decision as it pertains to Crooked Creek.

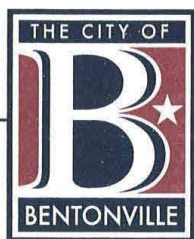
Pursuant to 40 C.F.R. § 130.7(d)(2), “The Regional Administrator shall either approve or disapprove such listing and loadings not later than 30 days after the date of submission. The Regional Administrator shall approve a list developed under § 130.7(b) that is submitted after the effective date of this rule only if it meets the requirements of § 130.7(b). If the Regional Administrator approves such listing and loadings, the State shall incorporate them into its current WQM Plan. If the Regional Administrator disapproves such listing and loadings, he shall, not later than 30 days after the date of such disapproval, identify such waters in such State and establish such loads for such waters as determined necessary to implement applicable WQS...” There is no provision in the Code of Federal regulations that allows for listing a water body as “pending.”

3. ADEQ acknowledges the comment. ADEQ recently (January 2012) collected water samples in Crooked Creek a few miles above the City of Harrison. The results of the mineral analysis were as follows: Chlorides were 6.14 mg/L, well below the standard in Regulation No.2 of 20 mg/L; Sulfates were 6.85 mg/L, well below the standard in Regulation No. 2 of 20 mg/L; and total dissolved solids were 142 mg/L, well below the standard in Regulation No. 2 of 200 mg/L.

These results indicate that Crooked Creek's current water quality standard for minerals are appropriate and attainable. Based on this recent analysis of the mineral criteria in Crooked Creek and the limited resources available to ADEQ, we do not anticipate that we will carry out the request to conduct a Use Attainability Analysis (UAA) or develop a sub-category of a use for Crooked Creek. As stated above, Crooked Creek is currently meeting all of its designated uses. If a third party seeks to perform a UAA or develop a sub-category of a use for Crooked Creek, it will need to petition the APC&EC to carry out this rulemaking activity. If the Commission allows the third party to initiate rulemaking for Crooked Creek, a public notice will be issued and public participation will be provided at that time.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.

17. The following comments were received from Mike Bender representing the City of Bentonville.



RECEIVED
By Jim Wise at 3:15 pm, Feb 16, 2012

February 16, 2012

via electronic delivery
ImpairedWater-Comments@adeq.state.ar.us

Mr. Jim Wise
Arkansas Department of Environmental Quality
Water Division
5301 Northshore Drive
North Little Rock, Arkansas 72118

RE: City of Bentonville Response to Public Notice
Draft ADEQ 2012 Impaired Waterbodies List (303(d) List)

Dear Mr. Wise:

The City of Bentonville (Bentonville) greatly appreciates the opportunity to provide comments regarding the Arkansas Department of Environmental Quality's (ADEQ) draft 2012 Impaired Waterbodies List [303(d) List]. Bentonville commends ADEQ on its efforts to protect invaluable water resources; however, Bentonville respectfully objects to the inclusion of Town Branch Creek in Category 5 on the above referenced 303(d) List.

- **ADEQ's rationale for assigning the Low Priority, Category 5 listing is unclear.** According to ADEQ, Low Priority, Category 5 waters are those in which 1) all uses are supported but one or more water quality standards are not being attained, 2) data are insufficient to make an impairment decision, or 3) ADEQ has determined the waters to be unimpaired but EPA has not. None of these criteria apply to Town Branch Creek. The United States Environmental Protection Agency, Region 6 (EPA) completed a Total Maximum Daily Load (TMDL) for Town Branch Creek in July 2010, which is within the period of record indicated for this 303(d) List. Since a TMDL has been completed by EPA, Category 5 is inappropriate and Town Branch Creek should be listed under Category 4a to be consistent with descriptions of the listing categories. Given ADEQ's recent position regarding the impairment status of Town Branch Creek, Bentonville requests ADEQ clarify their reasons for including Town Branch Creek as a Low Priority, Category 5 water.
- **ADEQ has already determined that Town Branch is not impaired.** While the above comment is a basic formality to correct the listing per descriptions of listing categories based on the completion of the EPA TMDL, listing the stream in Category 4a is still inaccurate.

Town Branch Creek should be a Category 1 waterbody in that all water quality standards are being met and no designated use is threatened.

Bentonville concedes that in the 1990's and early 2000's, Town Branch Creek exhibited slight impairment due to excess nutrients; however, improvements have been made to the City's wastewater treatment plant (WWTP) to reduce nutrients in the plant's effluent to eliminate any impairment due to the nutrients identified. Arkansas Pollution Control and Ecology Commission Regulation Number 2 (Reg. 2) includes narrative criteria for nutrients. Reg. 2 states that "materials stimulating growth shall not be present in concentrations sufficient to cause objectionable algal densities or other nuisance aquatic vegetation or otherwise impair any designated use of the waterbody". No algal blooms or substantial algal growth have been recorded, observed or otherwise noted within the period of record (or thereafter) for this listing. Water quality data from ADEQ's fixed ambient water quality monitoring station ARK0056 also clearly demonstrates the dramatic reduction in phosphorus loading in Town Branch Creek since 2006.

Further, and most importantly, ADEQ has stated in writing on several recent occasions (including comment letters to the EPA) that all water quality standards are being met and designated uses are supported in Town Branch Creek. Two of these letters are attached for reference and provide detailed insight regarding the listing history and current status of Town Branch Creek. They are included as part of these comments to minimize repetition and paraphrasing.

The first letter, dated April 26, 2010, is addressed to Mr. Miguel Flores, Director of the Water Quality Protection Division EPA Region 6. Within this referenced letter, ADEQ includes rationale to move Town Branch Creek to Category 4b and further states that ADEQ believes all designated uses in Town Branch Creek are currently being met. The second letter, dated May 19, 2010, is addressed to Diane Smith of the same division of EPA noted above. This letter further explains the impairment decision history of Town Branch Creek and details reasons why ADEQ determined that the stream is not impaired. Both letters also note improvements made by Bentonville in reducing phosphorus in the WWTP effluent that address the impairments noted in the listings as well as supporting ADEQ's stance that all uses are being met. Graphic illustrations of the reduction in phosphorus loading recorded at monitoring station ARK0056, noted in the paragraph above, are also included in both attached letters.

Within the last two years, ADEQ has conducted an intensive monitoring program to evaluate water quality and the aquatic communities of Town Branch Creek and is expected to finalize their written report early this year. In addition, Bentonville hired Geosyntec Consultants to provide supplemental water quality studies in conjunction with ADEQ's efforts. Geosyntec Consultants will also complete a written report on their findings early this year. ADEQ and Bentonville are planning to meet with EPA once both reports are completed to review data and determine the status of Town Branch Creek. This study of emphatically recent data specific to current conditions should be the basis for categorizing Town Branch Creek. Previous data collected by ADEQ has lead ADEQ to the conclusion that Town Branch Creek is not impaired, and ADEQ's most recent data tentatively confirms this. If ADEQ is fully satisfied that all water quality standards are being met and all designated uses are supported in Town Branch Creek, the stream should be listed in Category 1 as this is

consistent with the listing category definitions. To list this creek as proposed is erroneous and contrary to ADEQ's published opinions.

- **Town Branch is a small, urban headwater losing stream.** The 2012 Town Branch Creek listing indicates the fisheries use as being the impairment. The losing stream status and physical barriers in Town Branch Creek impose far greater restrictions on fishery population volume and diversity than any nutrient or natural or man-made point source. Town Branch Creek is a small, headwater stream (watershed less than 7 square miles) that should not be expected to support the same fish communities as larger, downstream reaches. In addition, due to the fact it is a losing stream, Town Branch Creek only connects to downstream receiving waters (McKissic Creek) during wet periods following significant rains further reducing opportunity for expanding diversity or further developing populations of existing biota. Even with this physical limitation, data suggests the aquatic populations that do exist are healthy.

The City appreciates this opportunity to provide the above comments and sincerely hopes the ADEQ will act reasonably and responsibly in its review of the 2012 Impaired Waterbodies List. Please feel free to contact me at 479-271-6720 or mbender@bentonvillear.com if you have any questions or wish to further discuss any comments.

Respectfully,



Mike Bender, PE
Public Works Director

Attachments:

ADEQ letter dated April 26, 2010 addressed to Mr. Miguel Flores, EPA (4b rationale letter)
ADEQ letter dated May 19, 2010 addressed to Ms. Diane Smith, EPA (TMDL comments)

Cc: Honorable Bob McCaslin, Mayor, City of Bentonville
Honorable John Boozman, US Senate
Honorable Steve Womack, US Congress
Teresa Marks, Director, ADEQ
George Spence, City Attorney, City of Bentonville
Camille Thompson, Staff Attorney, City of Bentonville
Linda Martin, Doerner, Saunders, Daniel & Anderson, LLP
Tom Wallace, Geosyntec Consultants

ADEQ Response:

Thank you for your comments, Mr. Bender.

1) We acknowledge the comment and agree that Town Branch should not be placed in Category 5. The categorization of Town Branch has been reviewed and revised by ADEQ as a result of this comment and has been placed in Category 4a.

2) We acknowledge your comment “that Town Branch should be a Category 1 waterbody in that all water quality standards are being met and no designated use is threatened”. While we agree in theory that your comment is correct, ADEQ does not currently have the requisite data to change the listing. We also acknowledge that ADEQ provided a letter to Mr. Miguel Flores, Water Protection Division Director at Region 6 EPA, with our rationale for placing Town Branch into Category 4b. In addition, we acknowledge that we sent a letter to Ms. Dianne Smith concerning the impairment listing decision history. However, in both cases, EPA did not approve that rationale or agree that Town Branch should be classified in Category 4b, nor did they consider the impairment listing decision history information when they finalized their TMDL.

3) It is correct in that it is ADEQ’s position that Town Branch Creek is no longer impaired. It is also correct that ADEQ initiated a two-year, chemical, physical, and biological study on Town Branch Creek to develop scientifically defensible data to support ADEQ’s position. In addition, we acknowledge the efforts by the City of Bentonville, through its consultant, Geosyntec to further refine these additional data. However, these studies were ongoing at the time of the assessment (the actual field work was completed during the fall of 2011) and were completed after the period of record cutoff date. The data generated from these surveys and the conclusions from the surveys will be used to help develop the 2014 list of impaired waterbodies.

ADEQ proposes the following changes to the 2012 303(d) list as a result of these comments:

- 1) Removal of Town Branch from Category 5 and placing the stream in Category 4a.

18. The following comments were received from GBM^c and Associates:

219 Brown Lane

Bryant, AR 72022

(501) 847-7077

(501) 847-7943 fax



February 14, 2012

RECEIVED

By Jim Wise at 3:17 pm, Feb 16, 2012

Mr. Jim Wise
Arkansas Department of Environmental Quality
Water Division
5301 Northshore Drive
North Little Rock, AR 72118

Re: 2012 Draft 303d List
GBMc No. 2042-99-010

Dear Mr. Wise:

Pursuant to the public notice of January 17, 2012 we have reviewed the proposed 2012 303d List and offer the following comments on behalf of El Dorado Chemical Company (EDCC).

Category 5 – Listings for ELCC Tributary and Flat Creek

Under this category the ELCC tributary is listed for an impaired fishery use caused by pH, Copper and Nitrate with Industrial Point Source as the source of the impairment. Flat Creek is listed for an impaired fishery use caused by pH with Industrial Point Source as the source of the impairment. For all three of the parameters listed as causes, we request a copy of the data and the calculations which resulted in the determination of the aquatic life impairment and which identified the listed source. According to the 303d protocols published with the list, the data was to be obtained between April 1, 2008 – March 31, 2011 (Copper) and April 1, 2006 - March 31, 2011 (pH and Nitrate). If the source of the data for Copper is ADEQ ambient monitoring, we would like a copy of the quality assurance plan documenting that clean techniques were used in the collection of the data.

As you may be aware, EDCC has water quality based effluent limitations under NPDES permit AR000752 for both Copper and pH in its NPDES permit and have a history of consistent compliance with those effluent limitations. Pending the receipt of documentation which shows a clear correlation between EDCC's permitted discharges to the ELCC and subsequently Flat Creek, we request that those listings be removed in the finalization of the 2012 303d List.

And while the protocols for screening pH and metals are clear in the documentation provided with the draft 303d list, we did not find a procedure for screening Nitrate. As you are aware, there is no Nitrate criterion in Regulation No. 2. Consequently we request the removal from the list of any reference to Nitrate in regards to the fishery use in the ELCC tributary.

Category 4A – Listings for ELCC Tributary, Flat Creek and Salt Creek

Under this category, ELCC Tributary, Flat Creek and Salt Creek are listed. For the ELCC Tributary, a fishery use impairment is listed because of Ammonia. Additionally the drinking water use is listed as impaired with dissolved minerals (Chloride, TDS and Sulfate) as the cause with the source being an industrial point source.

GBM^c & Associates
Strategic Environmental Services

Mr. Jim Wise
Page 2

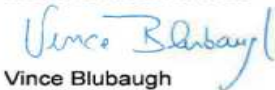
For the ELCC tributary we are requesting the documentation that determined that an industrial point source was the cause of the listed fishery use impairment due to Ammonia. We are unaware of any instream data collected between the April 1, 2008 – March 31, 2011 dates which would support such a determination and would like to review it and give technical comments prior to the finalization of the 2012 303d list.

For Flat and Salt Creeks, fishery and drinking water uses are listed as impaired due to dissolved minerals caused by nonpoint sources. We believe the drinking water use impairments for these water bodies (along with the ELCC Tributary) are erroneous as that use was removed for all three water bodies as documented on Page A-30 of Appendix A of Regulation No. 2. It is our understanding that USEPA Region 6 approved the Commission's removal of the drinking water uses for those water bodies years ago. Therefore the drinking water use is no longer applicable and those water bodies should be delisted in regards to drinking water use impairment in the final 2012 303d list.

In addition, we request a copy of the documentation regarding the fishery impairments for Flat and Salt Creeks due to dissolved minerals from nonpoint sources. We would like to review that documentation and give our technical comments before finalization of the 2012 303d list.

We appreciate the opportunity to comment on the 2012 303d list and look forward to reviewing the data prior to its finalization. If you have any questions, do not hesitate to contact me or Roland McDaniel at 501-847-707.

Sincerely,
GBMc & ASSOCIATES



Vince Blubaugh
Principal

cc: Greg Withrow, EDCC
John Carver, LSB Industries
Kyle Wimsett, EDCC

GBMc & Associates
Strategic Environmental Services

ADEQ Response:

Thank you for your specific comments, Mr. Blubaugh. As you are aware, ADEQ utilized monitoring data from four water quality monitoring sites to evaluate the water quality and designated use attainment of the aforementioned water bodies:

OUA0137A – unnamed tributary (ELCC) below EDCC effluent ditch confluence

OUA0137B – unnamed tributary (ELCC) above Flat Creek confluence

OUA0137C – Flat Creek below unnamed tributary

OUA0137D – Salt Creek above Haynes Creek

The data and calculations which resulted in the determination of the aquatic life impairment and which identified the listed source, as well as a copy of the quality assurance plan, will be mailed separately. Additionally, the water quality data utilized for the evaluation of water quality standards attainment are stored in the EPA STORET data base and can be accessed via the EPA web site (www.epa.gov/storet/). The calculations were based on the formulas and water quality standards established in Regulation No. 2, which is accessible at the ADEQ web site (www.adeg.state.ar.us/regs/default.htm).

The commenter requested data or calculations which identified the listed source. No other industrial point sources are present in the 21 sq. mi. ELCC tributary watershed. This indicates that the probable source is from the industrial point source discharge above OUA0137A. Additionally, the discharger on Flat Creek above OUA137C is a municipal point source. The 303(d) list will be revised to reflect the source of impairment. If the commenter has additional information concerning other industrial or municipal point source discharges, the Department will consider this in the 2014 listing cycle.

The commenter requested listings be removed prior to finalization of the 303(d) list until a clear correlation between EDCC's discharges to the ELCC tributary and subsequent Flat Creek can be made. ADEQ identified sources of impairments by following EPA's "Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act, July 29, 2005". This guidance indicates that States should include state-level summaries of causes and sources of impaired waters including industrial point sources etc. As stated above, after reviewing locations of industrial point source dischargers in the ELCC Tributary, no other industrial point sources are present. Also, the source of impairment for Flat Creek will be revised to municipal point source. Furthermore, ADEQ cannot delist a pollutant pair based on the compliance history of a permitted facility; therefore, the ELCC Tributary will remain on the list as impaired for copper and pH. ADEQ must rely on instream data from or near the location the original data was collected that previously placed the pollutant pair on the list. In addition, there have been no new data collected to support removal of the pH listing on Flat Creek, thus it will remain on the list.

Concerning the nitrate listing, ADEQ agrees and the nitrate listing will be removed.

Category 4a Listings

Category 4a is simply a tabulation of water bodies with completed total maximum daily load reports and is not the list of impaired waterbodies (Category 5). The tabulation lists the

constituents, water body designated uses, and water quality standards addressed in the reports. All TMDL's in this category were subject to public participation and any comments concerning the appropriate designated use impairment could have been addressed at that time.

ADEQ is proposing the following changes to the 2012 303(d) list as a result of these comments:

- 1) Removal of the nitrates as the cause of impairment for ELCC Tributary
- 2) Change the source of impairment for Flat Creek from Industrial Point Source to Municipal Point Source

19. The following comments were received from FTN Associates Ltd.



3 Innwood Circle, Suite 220 • Little Rock, AR 72211-2449 • (501) 225-7779 • Fax (501) 225-6738

February 17, 2012
ImpairedWater-Comments@adeq.state.ar.us

Mr. Jim Wise
Arkansas Department of Environmental Quality
Water Division
5301 Northshore Drive
North Little Rock, AR 72118-5317

RE: Comments on 2012 draft 303(d) list
FTN No. 6750-100

Dear Mr. Wise:

On behalf of Halliburton Energy Services, Inc., we offer the comments below concerning the 2012 draft 303(d) list. These comments relate to streams in the Cove Creek watershed in Hot Spring County, Arkansas.

Our data and calculations indicate that Chamberlain Creek (reach 08040102-971) is not impaired for cadmium as shown on the 2012 draft 303(d) list. Our data and calculations, in Table 1 (attached to this letter), indicate no exceedances of dissolved cadmium criteria during the assessment period for metals (April 1, 2008 through March 31, 2011) at any of the three ADEQ stations along Chamberlain Creek (OUA0171A, OUA0101, and OUA0104). Each measured concentration of dissolved cadmium was compared to a criterion that was calculated based on the hardness for that sample, except that the hardness value used in the calculation was not allowed to be below 25 mg/L or above 400 mg/L (in accordance with 40 CFR 131.36). Based on these calculations, we request that ADEQ remove the impairment for cadmium in Chamberlain Creek. If ADEQ is basing this impairment on different data and/or calculations, we request that ADEQ provide their data and calculations to us.

Our data and calculations indicate that Cove Creek downstream of Chamberlain Creek (reach 08040102-970) is not impaired for copper as indicated on the 2012 draft 303(d) list. Our data and calculations for this reach are shown in Table 2 (attached to this letter). These calculations follow the same procedure as described above for Chamberlain Creek, and indicate no exceedances of dissolved copper criteria during the assessment period at any of the three ADEQ stations along Cove Creek downstream of Chamberlain Creek (OUA0100, OUA0159, and OUA0103B). Based on these calculations, we request that ADEQ remove the impairment for copper in Cove Creek downstream of Chamberlain Creek. If ADEQ is basing this impairment on different data and/or calculations, we request that ADEQ provide their data and calculations to us.

Regional Offices: Fayetteville, AR; Baton Rouge, LA; and Jackson, MS • www.ftn-assoc.com • ftn@ftn-assoc.com

Mr. Jim Wise
February 17, 2012
Page 2

We appreciate the opportunity to review the 2012 draft 303(d) list and provide these comments. If ADEQ has any questions or requires additional information regarding these comments, please do not hesitate to contact Mr. Jim McGinty with Halliburton Energy Services, Inc. at (281) 575-4428.

Respectfully submitted,
FTN ASSOCIATES, LTD.



Jim Malcolm
Vice President

JTM/skj

CC: Jim McGinty, Halliburton Energy Services, Inc.

R:\WP_FILES\6750-100\CORRESPONDENCE\L-J WISE 2012-02-17 COMMENTS ON 2012 DRAFT 303(D) LIST.DOCX



ADEQ Response:

Thank you, Mr. Malcolm, for your comments. The elevated hardness values observed in Chamberlain and lower Cove Creeks are not representative of Ouachita Mountain streams. The average hardness in a tributary of Cove Creek, Basin Creek, is <20 mg CaCO₃/L. Basin Creek is unaffected by mining activity in the watershed. The average hardness in Chamberlain Creek is 696 mg/L, which is dominated by Halliburton Energy Services, Inc. treated wastewater and does not reflect hardness representative of the watershed. The hardness of Basin Creek was used to determine metals impairment; therefore, the listing for Chamberlain Creek will remain.

The listing of Cove Creek has been reviewed and revised by ADEQ as a result of identifying questionable analysis of the samples for the period of record.

ADEQ is also adding Chamberlain Creek and a reach of Cove Creek to the 303(d) list. The cause of the impairment is toxicity. Water toxicity was tested for Chamberlain Creek and for Cove Creek below the confluence with Chamberlain Creek. Toxicity was tested using the larvae of the fathead minnow (*Pimephales promelas*) and the water flea (*Ceriodaphnia dubia*) which were exposed to water collected from both streams for 96-hours using standardized test methods. The endpoint of the tests was mortality. Of 14 water samples collected from Chamberlain Creek, all showed toxicity. Of 11 water samples collected from Cove Creek, downstream of Chamberlain Creek, 45% showed toxicity to minnow larvae and 73% to water fleas. APC&EC Regs. 2.409 and 2.508 state that “toxic substances shall not be present in receiving waters, after mixing, in such quantities as to be toxic to human, animal, plant or aquatic life or to interfere

with the normal propagation, growth and survival of the indigenous aquatic biota.” Therefore, ADEQ will remove the copper listing for Cove Creek; the cadmium listing for Chamberlain Creek will remain as the hardness is starkly non-representative of Cove Creek watershed hardness; and reaches 08040102-971 and 08040102-970 will be added with the cause of impairment as toxicity.

ADEQ. 2009. Physical, Chemical, and Biological Survey of Cove Creek Watershed.
Publication Number WQ09-10-01

20. The following comments were received by American Electrical Power.



American Electric Power
P O Box 30016
Dallas, TX 75386-0166
AEP.com

February 14, 2012

E-mailed to: ImpairedWater-Comments@adeq.state.ar.us
And Also Sent via Certified Mail- Return Receipt Requested 7009 2250 0004 0730 4388

Jim Wise
Arkansas Department of Environmental Quality
Water Division, 5301 Northshore Drive
North Little Rock, Arkansas 72118

RE: Formal comments: ADEQ Draft 2012 Impaired Waterbodies 303(d) list

Dear Mr. Wise:

American Electric Power (AEP) on behalf of the Southwestern Electric Power Company (SWEPCO) Flint Creek Power Station hereby submits formal comments concerning the aforementioned Draft 2012 Impaired Waterbodies 303(d) list recently prepared by ADEQ. AEP respectfully requests that these comments be considered by ADEQ prior to approval and issuance of the final 303(d) list. Our comments regarding the draft 2012 303(d) list are as follows:

1. AEP requests to have SWEPCO Lake (HUC 11110103) delisted from the Draft 2012 303(d) list. As both the cause of impairment and the source of the impairment are still listed as unknown, and have been listed as unknown since the 2006 303(d) list, AEP requests to have SWEPCO Lake removed from the 303(d) list. There are insufficient data to make a scientifically defensible decision concerning the impairment for a designated fisheries use. No new data have been generated in the past four or more years, and Section 2.0 of the ADEQ Assessment Methodology document addresses that "there has not been a significant quantity of data recently collected from any of the State's lakes."

It currently remains unknown if the exceedance of the standard in question is a Naturally Occurring Excursion (NOE) or a Natural Background condition without reference or adequate historical data. As this determination will be needed on a case-by-case basis, AEP requests SWEPCO Lake be delisted until further data can be collected for a defensible decision. Without water quality standards, assessment

criteria, and monitoring strategies currently available for State lakes, a re-evaluation of the listing of SWEPCO Lake is necessary before a relisting should be carried forward from previous decisions. Lastly, without more data it remains unclear how such water quality standards can be improved upon to attain a higher quality.

This concludes the comments we have for the ADEQ Draft 2012 Impaired Waterbodies 303(d) list. AEP appreciates the opportunity to submit comments and participate in the development and inclusion of the final 303(d) list. Thank you for your work on this 303(d) list and consideration of the formal comments provided. Please feel free to contact Emily McCord (214) 777-1381 or Cathleen Grossman of my staff at (214) 777-1373 if you have any questions concerning the information contained in this letter.

Sincerely,



David B. Hall, Ph.D., Manager
Water & Ecological Resource Services
American Electric Power

C: Carl Handley
Scott Carney
Ivaunna Neigler
Randy Solomon
Emily McCord
Cathleen Grossman

ADEQ Response:

Thank you, Mr. Hall, for your comments. ADEQ recognizes that the dataset from Lake SWEPCO is very limited and outdated. Due to very limited resources, ADEQ has not been able to perform in-lake water quality monitoring in recent years. However, this does not preclude American Electric Power (AEP) from performing an assessment of Lake SWEPCO. Due to the limited data and pursuant to the requirements of 40 C.F.R. § 130.7, a water body can only be delisted from the list of impaired waterbodies when either new data indicates attainment of water quality standards or designated uses, water quality standards revisions result in the attainment of water quality standards or designated uses, or a total maximum daily load has been completed and approved for the water body. As stated in your comment, ADEQ does not have any recent data that would support a “de-listing” decision. ADEQ would invite AEP to submit any biological data for consideration during the development of the 2014 listing cycle of impaired waterbodies.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.

21. The following comments were received by the Oklahoma Department of Environmental Quality



STEVEN A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

MARY FALLIN
Governor

February 17, 2012

Mr. Jim Wise
Water Division
Arkansas Department of Environmental Quality (ADEQ)
5301 Northshore Drive
North Little Rock, AR 72118

Re: Arkansas 2012 List of Impaired Waterbodies (303(d) List)

Dear Mr. Wise:

On behalf of the State of Oklahoma, DEQ is submitting the enclosed comments on the proposed Arkansas 2012 List of Impaired Waterbodies (303(d) List). The State of Oklahoma is concerned that the proposed list is deficient and incorrect, specifically regarding several major streams and rivers entering Oklahoma from Arkansas.

In review of the State of Arkansas proposed 2012 List of Impaired Waterbodies we offer the following comments.

1. The proposed 2012 303(d) List does not contain the waterbodies listed below that were included in the 2008 List. No rationale was provided in the document which would indicate why these waterbodies have not been included in the 2012 List. 40 CFR 130.7(b)(6)(iv) requires the state to demonstrate good cause for not including previously listed segments on their 303(d) lists. We request that the causes for delisting are provided for each of the segments proposed for removal. If good cause cannot be provided for delisting, the segments should remain on the list of impaired waters for 2012.

Stream Name	HUC	Reach	Planning Segment	Cause
Baron Fork	11110103	013	3J	Pathogens
Illinois River	11110103	020	3J	Siltation/Turbidity
Illinois River	11110103	028	3J	Pathogens
Osage Creek	11110103	030	3J	Total Phosphorus, Pathogens
Osage Creek	11110103	930	3J	Total Phosphorus


Spring Creek	11110103	931	3J	Total Phosphorus, Pathogens
Little Osage Creek	11110103	933	3J	Pathogens

2. There are other shared streams and rivers that are contained in Oklahoma's 2008 303(d) list that are not found on the 2012 Arkansas list. Of particular concern to the State of Oklahoma are the Illinois River, Baron Fork River and Lee Creek. These waters are listed as Category 5 waters in Oklahoma and it is becoming more apparent that the State of Arkansas has not conscientiously assessed the degraded condition of these waters. Although two segments of the Illinois River are included in the 2012 Arkansas List, neither segment is listed as impaired for total phosphorus.

We would appreciate your consideration in this matter. If you have any questions or need any additional information, please contact Joe Long at (405)702-8198 or by e-mail at joe.long@deq.ok.gov.

Sincerely,



 Shellie Chard-McClary, Director
Water Quality Division
Oklahoma Department of Environmental Quality

copy: J.D. Strong, Oklahoma Water Resources Board
Mike Thralls, Oklahoma Conservation Commission
Dan Parrish, Oklahoma Department of Agriculture, Food, and Forestry
Ed Fite, Oklahoma Scenic Rivers Commission
Jane Watson, Associate Director, Ecosystems Protection Branch, EPA Region 6

ADEQ Response:

Thank you, Mr. Parrott, for your specific comments.

1. The ADEQ has determined that the above listed segments of the Baron Fork, Illinois River, Osage Creek, Little Osage Creek, and Spring Creek are currently meeting their designated uses and water quality criteria, with the exception of Illinois River, segment 020 for turbidity which is included in Arkansas's 2012 Impaired Waterbodies List. Justifications for removing a water body from the list are not required under the Clean Water Act or its associated federal regulations as part of the List of Impaired Waters.

Furthermore, States are required to public notice the List of Impaired Waters and to respond to comments concerning the list. The List of Impaired Waters are those waters that are classified as Category 5 waters, or those water bodies “not currently meeting water quality standards” (EPA “Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act”).

40 C.F.R. § 130.7(b)(6)(iv) states that “upon request by the *Regional Administrator*, each State must demonstrate good cause for not including a water or waters on the list. Good cause includes, but is not limited to, more recent or accurate data”(emphasis added). Osage Creek and Spring Creek have never been listed on any previous 303(d) list through an independent action of ADEQ. These streams segments were previous listed by EPA based on EPA’s interpretation that they exceeded a range of average phosphorus values derived from least-disturbed, Ecoregion reference streams. These values have not been legally adopted as water quality standards nor were they established as criteria in the Assessment Methodology. Arkansas currently does not have a specific promulgated water quality standard for total phosphorus (either narrative or numeric); therefore, these waterbodies are not now, nor have they ever been, assessed as impaired for total phosphorus by an independent action of ADEQ. These waterbodies have in the past, and are currently meeting all of their designated uses. In addition, these waterbodies have in the past, and are currently meeting the State of Arkansas narrative water quality standard for nutrients. ADEQ has fully complied with the federal requirements.

2. ADEQ has determined that the Illinois River, Baron Fork River, and Lee Creek are currently meeting Arkansas’ designated uses and water quality standards and, therefore, were not included on the 2012 303(d) list. Since the signing of the Statement of Joint Principles and Action agreement in 2003 and through the re-evaluation process of the .037 mg/l TP standard, the Illinois River has been the subject of extensive in-stream monitoring including water quality and biology response relationship studies. Arkansas currently does not have a specific promulgated water quality standard for total phosphorus (either narrative or numeric); therefore, the Illinois River is not now, nor has it ever been, assessed as impaired for total phosphorus by an independent action of ADEQ.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.

22. The following comments were received from Mr. Ed Brocksmith and Ms. Denise Deason-Toyne, Save the Illinois River:

Save the Illinois River, Inc., STIR, submits the following comments on Arkansas’ draft 2012 listing of impaired waters (303(d) listing):

Some streams and stream segments listed as impaired on Arkansas’ 2008 303(d) list are apparently not included in the Arkansas 2012 draft list of impaired waters. STIR requests that the Arkansas Department of Environmental Quality explain what chemical, physical, or other scientific reasons exist for failing to include these streams.

Specifically, we request an explanation as to why the segment of the Illinois River above the Arkansas-Oklahoma state border and why Osage Creek are not included in the Arkansas' draft 303(d) report to the USEPA?

Also, the draft 2012 list omits streams and stream segments that had been included in the 2008 Arkansas 303(d) list. Those omitted are: Barren Fork Creek, Spring Creek, Little Osage Creek, and segments of the Illinois River. Please explain why these stream segments are no longer impaired for factors including pathogens, siltation/turbidity, and total phosphorus.

ADEQ Response:

Thank you, Mr. Brocksmith and Ms. Denason-Toyne, for your comments.

1. The ADEQ has determined that the above listed segments of the Baron Fork, Illinois River, Osage Creek, Little Osage Creek, and Spring Creek are currently meeting their designated uses and water quality criteria, with the exception of Illinois River, segment 020 for turbidity which is included in Arkansas' 2012 Impaired Waterbodies List. Therefore, there is no reason to list these stream segments.

Justifications for removing a water body from the list are not required, under the Clean Water Act or its associated federal regulations as part of the List of Impaired Waters. Furthermore, States are required to public notice the List of Impaired Waters and to respond to comments concerning the list. The List of Impaired Waters are those waters that are classified as Category 5 waters, or those water bodies "not currently meeting water quality standards" (EPA "Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act"). 40 C.F.R. § 130.7(b)(6)(iv) states that "upon request by the *Regional Administrator*, each State must demonstrate good cause for not including a water or waters on the list. Good cause includes, but is not limited to, more recent or accurate data" (emphasis added).

Arkansas currently does not have a specific promulgated water quality standard for total phosphorus (either narrative or numeric); therefore, these water bodies are not now, nor have they ever been, assessed as impaired for total phosphorus by an independent action of ADEQ.

ADEQ is proposing no changes to the 2012 303(d) list as a result of these comments.