

## BUFFALO RIVER COALITION

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Governor Asa Hutchinson  
State Capitol  
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Via electronic delivery: [tori.gordon@governor.arkansas.gov](mailto:tori.gordon@governor.arkansas.gov)

June 3, 2016

Governor Hutchinson,

I am writing on behalf of the Buffalo River Coalition to discuss a matter with which I'm sure you are familiar – C&H Hog Farms. In particular, I want to address our concerns regarding recent information which has come to light indicating possible leakage from the C&H waste storage ponds. Related to that is the pending retrofitting of synthetic pond liners, and some mischaracterization of our positions on those matters.

### Pond Leakage, Possible Major fracture

In March, 2015, Oklahoma State University, under contract with the Big Creek Research and Extension team, conducted a geophysical investigation around the C&H ponds using Electrical Resistivity Imaging (ERI) which provided an indication of the subsurface geological characteristics around the ponds to a depth of 100 feet or more. The public was not made aware of this investigation, much less the results, until our organization received documentation pursuant to a Freedom of Information Act request to the USGS in August, 2015. Their response, received by us in early 2016, included an email exchange among BCRET team members stating that the OSU ERI team leader, Dr Todd Halihan, was confident the ERI results indicated a possible “*major fracture and movement of waste*” beneath the ponds and recommended that drilling be done to “ground-truth” or confirm the imaging data. Such follow-up drilling is typical of such studies and he offered to drill at no charge. Neither BCRET nor the owners of C&H followed through on the recommendation and offer. In March, 2016, representatives of our organization travelled to Stillwater, OK and met with Dr Halihan to discuss his findings. He reiterated his opinion that drilling was necessary to confirm the imaging data. He subsequently provided us with copies of his data. We then sought independent opinions from two experts in the field, Arkansas licensed geologist Mr. Tom Aley, and University of Arkansas geophysicist Dr. Christopher Liner, Maurice Storm Endowed Chair and head of the University of Arkansas Department of Geosciences, both of whom agreed that leakage of hog waste was likely and that confirmatory drilling was needed. This information was presented to the Pollution Control and Ecology Commission on April 29, 2016. Neither the Commissioners nor ADEQ were aware of this year-old investigation. The BCRET, which includes no geophysicists, contends that what experts (including Dr. Halihan) interpret as possible waste is simply clay and that drilling is unnecessary. Why would those who are charged with monitoring for the fate and transport of waste at C&H, in the interest of sound science, ignore the advice of geophysical experts and refuse to drill?

BCRET was created in response to ex-Governor Beebe's concern about possible environmental impacts from this swine CAFO placed just six miles upstream from the Buffalo National River. We ask that you, as our current Governor, intervene and require that confirmatory drilling be immediately done by Dr. Halihan or other independent, qualified experts. If it is determined that the ponds are leaking and that groundwater is being impacted, prompt steps should be taken to halt operations and correct the problem, including remediation of any damage to waters of the state.

### Pond Liners

While installing synthetic liners may be a good thing in general, and should probably be a regulatory requirement for all waste storage ponds state-wide, retrofitting them at C&H is altogether different and not a typical scenario. As suggested by the ERI data, the ponds are underlain by a "major fracture" and are actively leaking. Noted geologist, Mr. Tom Aley stated, "*The data strongly suggest that there is appreciable leakage downward out of the manure ponds. Such leakage not only introduces pollutants into the groundwater system but in this karst setting may also lead to subsidence or collapse of the ponds. At a minimum the data indicate that an adequate drilling program is needed prior to the installation of a liner in the ponds.*" In addition, Mr. Aley concluded, "*A thin membrane liner lacks the strength to span even relatively small subsidence or sinkhole features*" The risk of preexisting and ongoing leakage, possibly leading to subsidence or collapse, further emphasizes the need for confirmatory drilling prior to pond liner installation. .

For information on federal guidelines for installing liners in *new* waste storage ponds, see the Agricultural Waste Handling Field Handbook, Chapter 10 appendix D: <http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=31529.wba> Retrofitting liners, something never attempted on swine ponds in Arkansas, is not addressed but will only add to the complexity and expertise required for proper leak-proof installation, even lacking any underlying problems.

### Our Position

In May, 2015, C&H requested a permit modification to retrofit their clay-lined ponds with synthetic membrane liners. While our organization, and many others, opposed this modification for various technical reasons (and on advice of experts), ADEQ nevertheless approved this modification in March, 2016. C&H, as well as Farm Bureau and others, frequently contend that the ponds are "overbuilt" and the existing clay liners are more than adequate and that synthetic liners are not necessary but are being installed solely to satisfy concerns of "environmentalists" who requested they be installed. They have repeatedly said "environmentalists" asked for liners and now oppose them. These inaccurate statements create confusion, are categorically false, and mischaracterize the facts. To our knowledge, no one, environmentalist or otherwise, has requested that liners be installed. Except Cargill, the global food giant with whom C&H contracted previous to their current relationship with JBS.

Our organization met with representatives of Cargill, including the president of their Swine Division, on several occasions. In August 2014 they informed us that Cargill had decided that they would install liners, a cover, and a flare system on the C&H ponds at their own expense. We did not request this modification nor did we approve of it and in fact we expressed misgivings both when it was first proposed and later in our public comments to ADEQ, in part due to the problematic nature of retrofitting liners in existing waste ponds, an untried and experimental procedure atop karst terrain in Arkansas. Perhaps Cargill was concerned about leakage and was taking steps to mitigate damage. After all, their own ponds at their Sandy River farm near Morrilton, constructed years prior to C&H, which are not located atop karst features but are situated in deep Arkansas River bottomland soils, all have synthetic liners, so Cargill

appreciated their value. But for whatever reasons, Cargill originally proposed installation of liners at C&H and we, and others, have consistently opposed them for reasons we have repeatedly made clear.

Our position is that liners should not be installed until confirmatory drilling is done to determine 1) if leakage is occurring; 2) if the risk of subsidence can be ruled out; and 3) if groundwater and waters of the state are being impacted. If drilling confirms that damage has been done, all operations at C&H should cease until remediation can take place and an alternative location for the waste storage ponds can be provided, or the facility itself is relocated to a less sensitive, non-karst location. To do less would amount to negligence.

### BCRET Reluctance to Drill

It is beyond our understanding why BCRET declined the opportunity to drill when it was first freely offered by OSU and why they now contend it is unnecessary when numerous geophysical experts say otherwise. BCRET says of itself, *“Our core values are to collect the best data and provide the best interpretation possible. In this study, we want to find answers that to [sic] ensure the Buffalo River Watershed and other watersheds are protected.”* Further, the independent Peer Review Panel of experts assembled by BCRET stated, *“The Panel recommends that more sophisticated geophysical surveys (such as terrain conductivity and electrical resistivity tomography) be conducted, if feasible, to more fully characterize the subsurface environment in these fields in lieu of further GPR studies. **If these procedures document significant subsurface features that can affect water flow, subsurface investigations (i.e., drilling) should be conducted to confirm these observations.**”*

Governor Hutchinson, we ask that you use your authority to see that BCRET complies with its stated core values and follows the advice of its own advisory group. The Buffalo National River is a treasure of great value to all those who live in and visit the Natural State. Keeping the river free from pollution is an important goal not to be abandoned. Accordingly, please require ground-truthing and confirmatory drilling by independent experts to verify the results of the OSU ERI study. Clearly, red flags are flying which require your attention.

Thank you for your attention to this matter. Representatives of our organization would welcome the opportunity to meet with you and discuss our concerns and what we believe are values of immeasurable worth. Please let us know if that is possible.

On behalf of the Buffalo River Coalition,  
Respectfully,

Gordon Watkins, President  
Buffalo River Watershed Alliance

CC:

**Arkansas Pollution Control and Ecology Commissioners**, via Secretary Patricia Goff

- Randy Young
- Joseph Bates

- John Chamberlin
- Ricky Chastain
- Chris Gardner
- Miles Goggans
- Ann Henry
- Robert Reynolds
- Wesley Stites
- Bekki White
- Lawrence Bengal
- Joe Fox
- Rusty Moss
- Charles Moulton, Administrative Law Judge