BUFFALO RIVER WATERSHED ALLIANCE
ARKANSAS CANOE CLUB
NATIONAL PARKS CONSERVATION ASSOCIATION
OZARK SOCIETY

January 29, 2016

Via Email
C&H Hog Farms EA
c/o Cardno, Inc.
501 Butler Farm Road, Suite H
Hampton, VA 23666
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Re: Comments on FSA and SBA Final Environmental Assessment and Draft Finding of No Significant Impact, C&H Hog Farms

Dear Administrator Dolcini and Administrator Contreras-Sweet,

The Buffalo River Watershed Alliance, Arkansas Canoe Club, National Parks Conservation Association, and Ozark Society (collectively, "the Coalition") respectfully submit these comments on the Final Environmental Assessment ("EA") and Draft Finding of No Significant Impact ("FONSI") prepared by the U.S. Department of Agriculture Farm Service Agency and the Small Business Administration (jointly, "the Agencies"). The Draft FONSI and Final EA were made available for public comment pursuant to NEPA regulation, 40 C.F.R. § 1501.4(e)(2), and the order of the District Court of the Eastern District of Arkansas in *Buffalo River Watershed Alliance v. Department of Agriculture.*, No. 4:13-cv-450-DPM, 2014 WL 6837005 (Dec. 2, 2014).[1] As explained below, the Draft FONSI and Final EA are unsupportable. The Coalition urges the Agencies to comply with the National Environmental Policy Act ("NEPA") and make the necessary finding pursuant to NEPA that the C&H facility may have significant adverse impacts on the human environment.[2]

[1] The Court found that the C&H concentrated animal feeding operation ("CAFO") for which the Agencies had guaranteed millions in federal loans was unprecedented, necessitating public review of the draft FONSI for thirty days in accordance with 40 C.F.R. § 1501.4(e)(2). *Buffalo River Watershed Alliance,* 2014 WL 6837005 at *4.

[2] These comments are supplemental to and wholly incorporate by reference the Coalition's September 4, 2015 comments on the Agencies' Draft EA, including attached exhibits. The Coalition directs the Agencies to those comments without repeating each of the many issues already raised before the Agencies, nearly all of which have been inadequately considered in the Agencies' Final EA. Here, the Coalition merely highlights several of the key problems with the Agencies' environmental review and identifies additional problems with the Draft FONSI and Final EA.

The EA and FONSI as drafted fail to comply with NEPA, which requires federal agencies to prepare an Environmental Impact Statement ("EIS") for federal actions "significantly affecting the quality of the human environment." 42 U.S.C. 4332(2)(C). Importantly, NEPA regulations define "affecting" to mean "will or *may have* an effect on." 40 C.F.R. § 1508.3 (emphasis added). The facts and science show that the unprecedented 6,500-swine C&H operation located in the watershed of the Buffalo National River indeed may have a significant adverse impact on the environment. The Agencies' conclusion to the contrary is unsupported by the science and will not withstand judicial scrutiny.

I. THE KARST SYSTEM AND ITS IMPLICATIONS FOR C&H'S IMPACTS ON WATER RESOURCES

NEPA is an "environmental full disclosure law," *Monroe Cnty. Conservation Council, Inc. v. Volpe*, 472 F.2d 693, 697 (2d Cir. 1972) (internal citation and quotation marks omitted). It ensures "that environmental information is available to public officials and citizens." 40 C.F.R. § 1500.1(b). An agency cannot comply with its obligations under NEPA by providing incorrect or inaccurate information. Rather, NEPA requires the disclosed information to be "high quality" because "[a]ccurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA." *Id*. Agencies are obligated to "insure the professional integrity, *including scientific integrity*, of the discussions and analyses" in their NEPA review. *Id.* § 1502.24 (emphasis added).

The Agencies' Draft FONSI and Final EA provide inaccurate scientific information and analysis. The glaring inaccuracy that permeates the Agencies' review and discredits all related findings is the Agencies' continued insistence that C&H is not located in a karst system. *See generally* Final EA at 3-10 to 3-13; *see, e.g.*, *id.* at 3-11 ("[T]he C&H Hog Farms site and vicinity do not exhibit strongly developed karst landforms . . . ."). The Final EA repeats the claim that soil borings conducted as part of C&H's permit application were indicative of an absence of karst beneath C&H," *id.* at 3-10—a claim that has been thoroughly discredited by experts in the field[3] and the National Park Service.[4] The conclusion that C&H is not located on

[3] *See, e.g.*, Testimony of Tom Aley, A Technical Assessment of the Adequacy and Accuracy of the Draft Environmental Assessment for C&H Hog Farms, Newton County, Arkansas at 12 (Aug. 27, 2015), http://buffaloriveralliance.org/Resources/Documents/Tom%20Aley%20hog%20farm%20assessment.pdf ("Aley comments") (noting that the three test borings were "done to characterize the sediments encountered and their possible utility for a compacted soil liner" and are "not indicative of an adequate subsurface hydrogeologic investigation"); Katarina Kosic et al., *Proposals for Integrating Karst Aquifer Evaluation Methodologies into National Environmental Legislations,* 1 Sustainable Water Resources Mgmt. 363, 370 (2015), http://link.springer.com/article/10.1007/s40899-015-0032-5/fulltext.html ("Kosic") (attached as Exhibit 1) (noting that "the subsurface investigation . . . conducted as part of the permitting process prior to construction" was "very limited").

karst, and hence that groundwater and surface water contamination via seepage and underground conduits are not a potentially significant impact, flies in the face of the overwhelming consensus of the scientific community.

It is undisputed by scientists that C&H is located in a region dominated by karst.[5] But the Agencies make no mention of the comments submitted by Thomas Aley, a preeminent geologist and hydrogeologist with special expertise in karst, and arbitrarily dismiss the research conducted by University of Arkansas Professor Emeritus and U.S. Geological Survey ("USGS") Research Hydrologist Emeritus John Van Brahana. *See, e.g.*, Final EA at 3-12. Turning a blind eye to the expertise volunteered to the Agencies by established and credible scientists is the antithesis of ensuring the scientific integrity of its analysis. *See* 40 C.F.R. § 1502.24. Indeed, two sister federal agencies—the National Park Service ("NPS") and USGS, both of which have more direct and relevant expertise than the Farm Service Agency and the Small Business Administration on the geology and hydrogeology of the region—concur with the statements of these experts that C&H is located in a karst system dominated by closely interconnected groundwater and surface water flow.

In its comments on the Draft EA, NPS states that "[t]he EA does not take into account the fragile nature of the karst system on Surface Water or Ground Water, which are intimately connected throughout the Buffalo River watershed."[6] NPS accepts as a fact that C&H's waste storage ponds "are built upon karst mantled with the insoluble residue from limestone decomposition" and that it is therefore "reasonable to believe that much if not all of th[e ponds'] leakage is finding its way into the karst groundwater system."[7] Pointing to the Electrical Resistivity Imaging ("ERI") study conducted by Oklahoma State University and its finding of a sinkhole in Field 12, NPS reiterates that "it is reasonable to believe that the facility may be directly discharging contaminants into the Buffalo River and surface streams flowing directly

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[4] *See* Letter from Kevin G. Cheri, Superintendent, Buffalo National River, to C&H Hog Farms EA at 23 (Sept. 4, 2015), http://buffaloriveralliance.org/Resources/Documents/BNR%20Comments%20on%20draft%20EA.pdf ("NPS comments") ("The geotechnical investigations did not indicate there were 'no karst features or topography' in the area of the buildings and waste storage ponds.").

[5] *See* Aley comments; *see also* John Van Brahana, Comments of Professor John Van Brahana on Draft Environmental Assessment for C&H Hog Farm (attached as Exhibit 1 to the Coalition's September 4, 2015 comments and also available at http://buffaloriveralliance.org/Resources/Documents/Ex%201%20-%20FINAL%20Brahana%20statement%20with%20CV.pdf) ("Brahana comments on Draft EA"). These comments also incorporate by reference the comments submitted by Professor Brahana on the Final EA. *See* Letter from John Van Brahana, Professor Emeritus, Univ. of Ark., to U.S. Farm Service Agency and U.S. Small Business Agency (Jan. 27, 2016), http://buffaloriverwatershedalliance.wildapricot.org/resources/Documents/Van Brahana re Final EA.v8.pdf ("Brahana comments on Final EA").

[6] NPS comments at 18-19.

[7] *Id.* at 10.

into the Buffalo River."[8] NPS cites the work of Dr. Brahana in describing "recent groundwater tracing in the area [that] indicates groundwater in the vicinity of spreading field 15 moves directly to the Buffalo River through the karst aquifer system, and comes out in a distributary pattern into the river," and admonishes the Agencies for failing to consider "the data Dr. Brahana has collected over the past two years."[9]

USGS too has corroborated the credibility of Dr. Brahana's findings. Dr. Brahana and his colleagues on the Karst Hydrogeology of the Buffalo National River ("KHBNR") team presented a study and an abstract at the USGS Survey Karst Interest Group Proceedings held from April 29 to May 2, 2014.[10] Notably, the abstract was authored jointly with USGS geoscientist and ground water specialist Dr. Phillip Hays, who is also a member of the Big Creek Research and Extension Team ("BCRET") so frequently referenced in the EA. In the abstract, the authors, including Dr. Brahana and Dr. Hays, note that the C&H CAFO is located in a "region [that] has a *mature karst landscape*, which provides rapid recharge to groundwater" and that "*[g]roundwater and surface-water interaction within the Big Creek watershed is extensive*."[11]

The Final EA thus entirely misses a central point. The key question is not *whether* the swine waste stored in C&H's two storage ponds and the swine waste spread on fields might eventually enter the karst groundwater system, but where that waste and contaminated water will travel. In a document obtained in response to a Freedom of Information Act request, NPS, in commenting on its water resources concerns related to C&H, notes that "[d]ue to the underlying karst geology and heterogeneous and flashy nature of groundwater flow, contamination may be rapidly transported in the subsurface to Big Creek."[12] NPS also noted that "[a] USGS-approved dye tracing study for the pond and barn area would help define subsurface hydrology, including groundwater flow direction, transit rates offsite, and areas of groundwater discharge."[13] In fact,

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[8] *Id.* at 12.

[9] *Id.* at 11, 21.

[10] *See* Nat'l Cave & Karst Res. Inst., USGS, Scientific Investigations Report 2014-5035, U.S. Geological Survey Karst Interest Group Proceedings, Carlsbad, New Mexico, April 29-May 2, 2014 at 4, 6 (Eve L. Kuniansky & Lawrence E. Spangler eds., 2014), http://pubs.usgs.gov/sir/2014/5035/sir2014-5035.pdf; Van Brahana et al., CAFOs on Karst—Meaningful Data Collection to Adequately Define Environmental Risk, with a Specific Application from the Southern Ozarks of Northern Arkansas 87, *in* Nat'l Cave & Karst Res. Inst., U.S. Geological Survey Karst Interest Group Proceeding ("CAFOs on Karst"); Victor L. Roland II et al., An Initial Investigation of Hydrogeology and Water Quality of Big Creek in the Buffalo River Watershed near a Major Concentrated Animal Feeding Operation—Abstract 97, *in* Nat'l Cave & Karst Res. Inst., U.S. Geological Survey Karst Interest Group Proceedings ("Hydrogeology Investigation").

[11] I*d.* at 97 (emphasis added).

[12] NPS, Mitigation and pollutant minimization proposals for C&H Hog Farm, Inc. 2 (preliminary draft, May 9, 2013) (attached as Exhibit 2).

[13] *Id.*

USGS already has funded a study undertaken by Dr. Brahana, USGS's Dr. Hays, and others, which accepts as a known fact that C&H is sited on karst and that the CAFO poses "a potential threat to groundwater and surface-water quality in the Mt. Judea area."[14] The study examines the hydrogeologic connections between groundwater and surface-water in the karst region and seeks to calculate diffuse groundwater flow and quick conduit flow in karst and the contribution of groundwater in the Buffalo River and Big Creek.[15]

In a similar vein, the two authors of the Oklahoma State University electrical resistivity imaging ("ERI") study of three C&H fields presented their findings, entitled "Resistivity imaging of Swine Waste in Mantled Karst," at the Midwest Ground Water Conference.[16] The title of the presentation indicates the undisputed conclusion that C&H is located on karst. The presentation notes that the ERI was conducted not to assess *whether* there was karst underlying the facility and its fields but rather to "[c]haracterize potential groundwater flowpaths in a complex mantled karst."[17] The presentation states that the bedrock underlying the soil and epikarst zones of the three imaged fields showed "[e]vidence for possible flowpaths."[18] In an email among members of the BCRET team about the presentation, USGS water quality specialist Timothy Kresse noted that he spoke with Professor Todd Halihan:

> I did chat with Todd [Halihan] and Jon [Fields] some about the pond results . . . . In short, it would be nice to put a well on the west side in the vicinity of where Todd believed he saw *a major fracture and movement of waste. This could be critical to resolving the interpretation of the*

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[14] State Water Resources Research Institute Program (WRRI), USGS, Hydrogeology and Biogeochemical Evolution of Groundwater in Big Creek and Buffalo River Basins and Implications for Concentrated Animal-Feeding Operations (Abstract), http://water.usgs.gov/wrri/grant-details.php?ProjectID=2014AR355B&Year=2014 (last visited Jan. 28, 2016).

[15] *Id.*

[16] The Final EA references an electrical resistivity imaging analysis of three C&H fields conducted by Oklahoma State University's School of Geology, *see* Final EA at 3-12, which was attached as Exhibit 6 to Coalition's September 4, 2015 Comments and are also available at http://buffaloriveralliance.org/Resources/Documents/Ex.%206%20-%20OSU%20ER%20Report%202015.pdf. The Agencies note that "a second field effort was conducted in May 2015" but claim that "[t]he results of the May surveys are not yet available." Final EA at 3-12. However, the two authors of the ERI study, Professor Todd Halihan and student Jon Fields, presented their findings on C&H as recently as October 2015 at the Midwest Ground Water Conference. *See* 60th Annual Midwest Groundwater Conference, Conference Program at 9 (2015), http://www.irwp.org/assets/PDF/2015-Midwest-Groundwater-ConferenceProgramFINALweb.pdf; *see also* Jon Fields & Todd Halihan, Okla. State Univ., Resistivity Imaging of Swine Waste in Mantled Karst (Powerpoint presentation) (attached as Exhibit 3).

[17] Exhibit 3 at slide 2.

[18] *Id.* at slide 18.

resistivity data . . . . I believe it is a critical component. Todd is fairly confident of his interpretation.[19]

The overwhelming scientific consensus is thus that C&H is located on karst. The Final EA inexcusably misses this significant point entirely. The facts and science ignored by the Agencies rationally lead to a conclusion that, particularly in a karst system, with its closely interconnected groundwater and surface water flow, C&H may have significant impacts on water resources. The Agencies' failure to ensure the scientific integrity of its analysis concerning karst and the related water impacts is a fatal flaw and discredits most of the findings in the EA and FONSI—such as impacts on protected species, on public health, and on the Buffalo National River—which are predicated on the erroneous conclusion that C&H will have no adverse impacts on water resources.

II. ADDITIONAL ERRORS AND FLAWS IN THE FINAL EA

These comments incorporate by reference the comments and attached exhibits submitted by the Coalition on September 4, 2015, with the following additional points:

Karst and Impacts on Water Resources

- The Final EA claims that "the C&H Hog Farms site and vicinity do not exhibit strongly developed karst landforms as demonstrated by a review of the Mt. Judea USGS 7.5 minute topographic quadrangle map and online aerial photograph information." Final EA at 3-11. As Dr. Brahana notes in his comments on the Final EA, however, reviewing the USGS 7.5 minute topographic quadrangle map and online aerial photographs is an insufficient method for determining the presence of karst.[20] Likewise, the NPS has noted that hundreds of sinkholes identified through Light Detection and Ranging ("LiDAR") do not appear on USGS topographic maps.[21]

- The Final EA discounts Dr. Brahana's groundwater characterization, karst inventory, and flourescent dye tracing study because "no published data or results are available." Final EA at 3-12. In fact, though, Dr. Brahana's research on the impacts of C&H in the Big Creek and Buffalo River watersheds has been published[22] and presented.[23] In one peer-reviewed publication, Dr. Brahana and his team note that "based

[19] Email from Timothy Kresse, USGS, to Andrew N. Sharpley, Univ. of Ark. (Oct. 16, 2015) (attached as Exhibit 4). Thus, the Agencies' conclusion from the ERI study that the underlying epikarst might actually "be a beneficial condition to the use of spray application," Final EA, App. B at 23, has no support in the science and directly contradicts the concerns raised by USGS scientists and the authors of the ERI study.

[20] *See* Brahana comments on Final EA at 1-3.

[21] NPS comments at 16.

[22] *See* Kosic (Ex. 1).

[23] *See* CAFOs on Karst; Hydrogeology Investigation.

on the indicated groundwater connections, and known physical and operational site characteristics, contaminant migration may already be occurring, presenting a significant risk for surrounding groundwater bodies, surface waters and natural heritage."[24] The Final EA's failure to acknowledge and consider this credible scientific finding is arbitrary and capricious.

The Final EA also discounts Dr. Brahana's data because the collected water quality data are "not available through the USGS or EPA water quality databases." Final EA at 3-12. The Agencies provide no rationale why availability through the USGS or EPA water quality databases is a necessary condition for the Agencies' consideration of data. Moreover, the Agencies' inconsistent approach of relying heavily on data collected by the BCRET team, which also is not available through the USGS or EPA water quality databases,[25] is further evidence of their arbitrary and capricious approach.

- The premise of the BCRET's comparison of upstream and downstream water quality data is fundamentally flawed, as the Coalition noted in its September 4, 2015 comments on the draft EA and as Mr. Aley noted in his comments.[26] NPS too has flatly stated that the Agencies "appear to lack any understanding of the dynamics of groundwater flow in a karst dominated watershed"[27]:

> They believe that the study Big Creek Research and Extension Team (BCRET) is conducting will determine if there are impacts to water quality as they are taking samples immediately above and below the spreading fields in Big Creek. They have failed to take into account the diverse flow possible in karst, and the long distance transport of groundwater, and contaminants. . . .
> . . .
> . . . Because of the fact that the water from this valley is flowing through the karst aquifers, it is not reasonable to assume that measuring the nutrient levels and bacteria just downstream of the CAFO is an accurate method to determine pollution potential.[28]

Yet, hand in hand with a myopic refusal to acknowledge the karst system, the Final EA continues to rely almost exclusively on the BCRET upstream and downstream data to conclude that C&H will not have adverse impacts on water quality. This "analysis" is scientifically indefensible.

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[24] Kosic at 370 (Ex. 1).

[25] *See* Brahana comments on Final EA at 8.

[26] *See* Aley comments at 4, 6 (noting that monitoring upstream and downstream of C&H will not accurately capture the facility's impacts "since the majority of the water containing contaminants derived from the manure will move downward into the karst groundwater system rather than overland to Big Creek").

[27] NPS comments at 14.

[28] *Id.* at 14, 21.

Dr. Brahana's peer-reviewed and published research shows that dye injected in a dug well in close proximity to three C&H fields was detected upstream of BCRET's "upstream" site,[29] invalidating any interpretation of the BCRET data that higher upstream than downstream values indicate contamination from sources other than C&H. Dr. Brahana's findings call into question the basis for much of the EA that references the BCRET upstream versus downstream data.[30]

- Even setting aside the fundamental flaw that characterizes BCRET's upstream versus downstream approach for assessing water quality impacts, the Agencies' nearly exclusive reliance on the BCRET study indicates a failure to insure the scientific integrity of the Final EA, *see* 40 C.F.R. § 1502.24, because the BCRET study to date does not accurately assess the impacts of C&H. The BCRET has noted of its own study:

> This information will be a short-term assessment . . . . Additional funds would be needed for sample collection and labor to continue monitoring for a minimum of five years. *This time frame is recognizes by NRCS [Natural Resources Conservation Services], EPA [Environmental Protection Agency], and general scientific community to be the minimum required to accurately assess any impacts and overcome annual weather fluctuations.*[31]

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[29] *See* Brahana comments on Final EA at 4; Kosic at 369 (Ex. 1).

[30] In any event, BCRET's quarterly report covering July 1 to September 30, 2015 states that "Nitrate-N concentration in Big Creek below the C&H Farm continue to be greater than those measured at the upstream site" and that "[c]oncentrations of nitrate-N and bacteria collected from the house well, which is . . . adjacent to the manure holding ponds have periodic high values." BCRET, Quarterly Report – July 1 to Sept. 30, 2015, Monitoring the Sustainable Management of Nutrients on C&H Farm in Big Creek Watershed at 2, http://www.bigcreekresearch.org/project_reports/docs/UofA%20BCRET%20Quarterly%20Report%20April%20-%20Sept%202015.pdf. This quarterly report also indicated the continued presence of *E. coli* and total coliform in an ephemeral stream and in the monitoring trenches constructed below the two waste storage ponds specifically to detect pond leakage. *Id.* at 39-44. The trend of higher downstream than upstream Nitrate-N concentrations continues in the most recent BCRET quarterly report covering October 1, 2015 to December 31, 2015. BCRET, Quarterly Report – Oct. 1 to Dec. 31, 2015, Monitoring the Sustainable Management of Nutrients on C&H Farm in Big Creek Watershed at 41-43, http://www.bigcreekresearch.org/project_reports/Quarterly%20Report%20Oct%20-%20Dec%202015.pdf. The most recent report also shows the continued presence of *E. coli* and total coliform in the ephemeral stream and monitoring trenches. *Id.* at 44-49. The Final EA does not consider this data.

[31] BCRET, Quarterly Report – Oct. 2013 to Dec. 2013, Demonstrating and Monitoring the Sustainable Management of Nutrients on C&H Farm in Big Creek Watershed at 10, http://www.bigcreekresearch.org/project_reports/docs/CH%20Quarterly%20Report%20Oct%20-%20Dec%202013%20Sharpley.pdf.

The BCRET study has now been ongoing for just over two years, and therefore, by its authors' own admissions, its data does not accurately assess the impacts of C&H.

The BCRET team plainly is still in an early stage of understanding the quality, reliability, and meaning of the data it is collecting. In an email exchange between members of the BCRET team that was obtained pursuant to the Freedom of Information Act, for instance, a USGS scientist noted:

> There [are] some analyses that don't make sense from several ways of looking at the data. . . . For example, there was one event where TN was 2.2 (upstream; 9/24/13), with NH4 and NO3 concentrations of only 0.03 and 0.44 respectively, and an organic N (which should supply the remainder) of 0. Doesn't add up. . . . There are others like these, which I'll simply highlight so we can discuss them at a later date. I don't want to get into too much minutiae on this point, but we'll want to decide if there is data that should be flagged and not used in further interpretation (hate to throw out data, but if not supported, then we'll at least want to discuss further). It would be nice to isolate these sooner, so the lab could re-run or check some of this older data . . . . Just wanted to give a flavor for what we are seeing, both positive and negative.[32]

The Final EA's assertion that the BCRET data are "considered sufficient to conclude that if the farm's operation over the last 18 months was contributing measureable concentrations of nutrients or bacteria then it would be apparent in the water quality monitoring data collected to date, or be observed in emerging trends," Final EA at 3-23, thus plainly has no support even from the scientists who have collected the data.

- The Final EA notes that a pending application by EC Farms proposes to spread C&H's swine waste on approximately 558 acres of land elsewhere in Newton County, Arkansas. Final EA at 4-3. The EA's facile conclusion that "[t]he addition of these fields for land application of C&H Hog Farms manure would allow for greater flexibility" fails to grasp the magnitude of this reasonably foreseeable change in circumstance on the impacts of C&H. *Id.*

  In July 2015, ADEQ received a request from EC Farms to land apply waste from C&H.[33] The requested permit is pending. EC Farms proposes to take the swine waste from C&H and land apply it on 33 land parcels located in 4 different townships (T13N-R20W, T14N-R21W, T15N-R20W, and T15N-R21W) in Newton County.[34] The vast majority of the 558 acres are located in the watersheds of the Little Buffalo River and

[32] Email from Timothy Kresse, USGS, to Andrew N. Sharpley, Univ. of Ark. (Jan. 21, 2015) (attached as Exhibit 5).

[33] Letter from Monica Hancock, Certified Planner, ANRC, to Ark. Dep't of Envtl. Qual., Water Div., Permits Branch (July 27, 2015), https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/3540-WR-7_Application%20Packet_20150727.pdf.

[34] *Id.* at 28-29.

Left Fork of Big Creek, which are within the Buffalo River watershed. More than one-third of this acreage is located on karst,[35] which can allow the waste to rapidly infiltrate into groundwater and flow unabated into streams, rivers, springs, and wells. The Final EA must consider these impacts[36] and also must consider that if the EC Farms permit is approved and waste from C&H is spread on additional fields in the Buffalo River watershed, the BCRET study that the EA relies upon so heavily, which focuses only on the area immediately surrounding C&H, will be made further unreliable in capturing the true impacts of the facility.

- The Final EA repeatedly references C&H's voluntary proposal to install liners in its two waste storage ponds and claims that this modification "would address concerns about potential seepage of wastes into groundwater, would control odor, and would convert methane into carbon dioxide." Final EA at 2-6. Setting aside the accuracy of these claims, the Final EA fails to note the distinct possibility that C&H actually will not implement this modification. In an email to Arkansas Department of Environmental Quality ("ADEQ"), Jason Henson of C&H asks ADEQ whether in the event that "ADEQ's final decision allow[s] for the installation of Pond liners/cover, C&H Hog Farms may choose not to move forward with the actual installation of said liners/cover and may rather opt to continue utilizing the existing clay liners."[37]

- In light of the inaccurate scientific analyses that pervade the Final EA, it is worth noting that the preparers of the Final EA, identified as consultants to the Agencies, *see* Final EA at 5-1, do not have academic or professional backgrounds that reflect any particular expertise in karst systems or hydrogeology. Their failure to consult with and incorporate the findings of Dr. Brahana and Thomas Aley, both preeminent scientists known as experts in their respective fields, speaks volumes about the Agencies' failure to insure the scientific integrity of their analyses.

Impacts on Other Resources

- The Final EA does not sufficiently consider impacts to threatened and endangered bat species. White nose syndrome ("WNS") caused by the fungus *Pseudogymnoascus*

[35] Letter from Kevin G. Cheri, Superintendent, Buffalo Nat'l River, to Katherine McWilliams, Ark. Dep't of Envtl. Qual. (Sept. 18, 2015), http://buffaloriverwatershedalliance.wildapricot.org/resources/Documents/BNR%20EC%20Hearing%20Request.pdf.

[36] Notably, while the Final EA describes C&H's proposed pond liner in a "Proposed Modifications" section, the Agencies inconsistently omit in this section any references to the proposed modification that would result in C&H's swine waste being spread over an even greater area in the Buffalo River watershed. *See* Final EA at 2-6.

[37] Email from Jason Henson, C&H Hog Farms, Inc., to Water Permit Application, ADEQ (Sept. 29, 2015), https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/ARG590001_Pond%20Liner%20Application%20Inquiry_20150929.pdf.

destructans was confirmed to be present in Arkansas in 2014[38] and according to NPS staff, was discovered in two caves in the Buffalo National River, Newton County, in 2015—including Fitton Cave, which is habitat to the federally protected Indiana Bat (*Myotis sodalis)*, Gray Bat (*Myotis grisescens),* and Northern Long-Eared Bat (*Myotis septentrionali)*, all of which have been shown to forage in and around C&H and on the Left Fork of Big Creek. WNS primarily affects hibernating bats. In affected hibernacula, 78 to 100 percent of bat populations—more than 5.7 million bats in northeastern North America—have died.[39] States where WNS has been present for several years have experienced severe declines in bat populations. Since the introduction of WNS, bat populations in Georgia have declined 82%, for instance, and in New Jersey they have declined 90%.[40] In a published study of WNS invasion dynamics in Midwestern states, researchers found that the first year of WNS invasion caused only small to moderate population declines.[41] In the second year, WNS resulted in "high population declines."[42] In Newton County, the second year of WNS infestation will begin in 2016.

As noted in the Final EA, "the primary threats to gray bat are human disturbance, deforestation, chemical contamination from pesticides, and white-nose syndrome (WNS)." Final EA at 3-38. Yet, in a serious oversight, the Agencies do not indicate that WNS is present in Arkansas nor in caves in Newton County, and do not analyze the impacts of C&H in the context of WNS on the three federally protected bat species in the proximity of C&H. In a failure to "use the best scientific and commercial data available," 16 U.S.C. § 1536(a)(2), the Agencies failed to request data from Dr. Brahana, which would have revealed that dye under high flow conditions traveled from a location near C&H manure spreading fields to John Eddings Cave, a major hibernaculum for gray bats.[43] The special requirements and selectivity of gray bat roosting areas translates to only 5% of available caves being suitable for this endangered species. Final EA at 3-39. Because of the gray bats' unique roosting requirements and the connectivity of C&H land application fields to John Eddings Cave, further investigation is required to better understand the impacts of C&H on John Eddings Cave and on the endangered Gray bat.

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[38] Blake Sasse, Arkansas Game and Fish Commission, Arkansas Bat Monitoring Report October 1, 2014 – September 30, 2015 (Nov. 23, 2015).

[39] U.S. Fish and Wildlife Servs., Regional Issue: White-Nose Syndrome, http://www.fws.gov/northeast/ecologicalservices/ecissues/wns.html (last updated July 20, 2015).

[40] *Fungus Kills 90 Percent of N.J. Bat Population, Scientists* Say, Associated Press, Apr. 30, 20110, http://www.nj.com/news/index.ssf/2010/04/fungus_kills_90_percent_of_nj.html; Grant Blankenship, *Researchers Explore Declining Bat Population in North America*, National Public Radio (Aug. 19, 2015), http://www.npr.org/2015/08/19/432910265/researchers-explore-declining-bat-population-in-north-america.

[41] Kate E. Langwig et al., *Invasion Dynamics of White-Nose Syndrome Fungus, Midwestern United States, 2012-2014,* 21 Emerging Infectious Diseases 1023, 1024 (2015), http://wwwnc.cdc.gov/eid/article/21/6/pdfs/15-0123.pdf. .

[42] *Id.*at 1023.

[43] *See* Brahana comments on Final EA at 8.

The Final EA acknowledges that macroinvertebrate populations could be adversely affected by nutrient runoff and contamination that affect bats by reducing prey availability. *See id.* at 3-31. Over the long term, if water quality is reduced, significant alteration of the prey community could change the aquatic invertebrate ecology.[44] Gray bats forage over large areas up to a 60 km range primarily over water (creeks, rivers, and ponds), requiring management strategies to include waterways and riparian areas beyond roost sites.[45] Given the anticipated impact to bats from WNS, any alteration to prey availability to the local ecosystem could further impact the survivability of these endangered species in Arkansas and must be further examined.

- The Final EA downplays C&H's contribution to odor impacts by noting that agriculture is already common in Newton County, highlighting the existence of four other swine CAFOs. Final EA at 3-44, 3-45. But this analysis fails to consider that the scope of C&H's swine operations is "unprecedented" in the area. *Buffalo River Watershed Alliance,* 2014 WL 6837005, at *4. C&H concentrates into one facility twice as many swine as all other swine CAFOs in Newton County combined. *See* Coalition's September 4, 2015 Comments at 28.

- EPA and the Department of the Interior have determined, under the Clean Air Act, that the Upper Buffalo Wilderness Area is a mandatory Class I federal area where visibility is an important value. 40 C.F.R. § 81.404. Thus, while the Final EA notes that the Northwest Arkansas Intrastate Air Quality Control region is in attainment for all criteria air pollutants, Final EA at 3-2, it should also recognize that the Upper Buffalo, in particular, receives the highest level of visibility protection under the Clean Air Act.

- Tourism is the lifeblood of Newton County and the surrounding area: over 1.3 million people visited the Buffalo National River in 2014 and contributed $65 million to the local economy. *See* Coalition's September 4, 2015 Comments at 32. The Buffalo National River relies on clear waters and a pristine environment to attract tourists to enjoy recreational activities such as swimming, kayaking, and fishing. Notably, the Buffalo River is a blue-ribbon smallmouth bass stream.

  But the Final EA improperly relies on the fact that visitation to the Buffalo National River did not decrease in 2013 or 2014 to dismiss concerns about C&H's potential impacts on the tourism industry. Final EA, App. B at 28-29. Visits to the National Park System overall increased from 2012 to 2014, so increased visitation to the Buffalo National River may simply be reflective of this nationwide trend. In addition, C&H's land application did not begin until late December 2013, Final EA at 2, so

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[44] Erin N. McKinney, Relative Contribution of Water Quality and Habitat to Macroinvertebrate Community Composition in Streams Influenced by Agricultural Land Use in the Cedar Creek Watershed, Indiana at 26 (May 2012) (unpublished Master's thesis, Indiana Univ. – Purdue Univ. Ft. Wayne), http://opus.ipfw.edu/masters_theses/12.

[45] Patrick Moore et al., *Home Range and Habitat Use of Foraging* Myotis grisescens *from Five Maternity Sites in Northern Arkansas Using Aerial Tracking—Abstract*, North American Society for Bat Research at 63 (2015), https://www.nasbr.org/pdfs/2015_Abstracts.pdf.

tourism data cited in the Final EA reflect only one year of C&H's waste management operations. "Both short- and long-term effects are relevant" to a NEPA analysis, 40 C.F.R. § 1508.27(a), and the full extent of the land application's impacts on the Buffalo River's environment and reputation as a tourist destination cannot be reflected in one year of data.

Alternatives

- The Final EA persists in an alternatives "analysis" that offers no actual consideration of alternatives in comparative form that, as required, "sharply defin[es] the issues and provid[es] a clear basis for choice among options by the decisionmaker and the public." 40 C.F.R. § 1502.14. Instead, the Agencies essentially analyze a single alternative: the operation of the C&H facility. Their rationale—that C&H and the lender "are free to continue their financial relationship without Federal guarantees," Final EA at 1-4, and that C&H "provided substantial collateral to secure the loans, including cash and property, which could be lost in the case of default," Final EA at 2-1—ignores relevant facts and disregards the very intent of the NEPA review, at the "heart" of which is the analysis of alternatives, 40 C.F.R. § 1502.14.

  First, in assuming that C&H will simply continue to repay its loans and that the facility's relationship with the lender will remain unchanged by the vacatur of the federal loan guarantees, the Agencies overlook the critical fact that C&H was unqualified to receive any credit without the federal loan guarantees. The Agencies' guarantees thus provided a level of insurance to the lender unmet by C&H's collateral. Moreover, the extent to which C&H is able to continue repaying its loan depends in large part on C&H's ability to retain its contract with Cargill, now JBS Pork—the sole consumer of C&H's product. The record before the agencies indicate that C&H's contract with Cargill is term-limited and also that the "demand" and "sales activity trend" in the relevant market is "below average."[46] The Appraisal Report for C&H noted that "[t]he demand for swine units is weak at the present time due to Tyson Foods shutting down their swine operation and cancelling contracts leaving only one swine integrator (Cargill Inc.) and one swine independent integrator (Coastal Plains Pork Cooperative) in the area. (Coastal Plains filed Bankruptcy 9-09)."[47] Thus, the continued viability of C&H and its ability to fulfill the terms of its loan repayment are not nearly as certain as the Agencies baselessly assume in the Final EA. A proper analysis of the no action alternative must therefore consider the impacts of a scenario in which C&H is not in operation in the Buffalo River watershed.

  The Agencies' failure to consider the impacts of a scenario in which C&H is not operating in the Buffalo River watershed also flies in the face of NEPA. The Final EA quotes from the Council on Environmental Quality (CEQ)'s Forty Most Asked Questions to justify its failure to assess more than a single alternative, *see* Final EA at 1-5, but in doing so, omits relevant language in that CEQ document stating that:

[46] Jim B. Wiedeman, Uniform Agricultural Appraisal Report at P553-P554 (Farm Credit Servs. of W. Ark. 2012) (excerpt attached as Exhibit 6).

[47] *Id.* at 4.

> [T]he [NEPA] regulations require the analysis of the no action alternative even if the agency is under a court order or legislative command to act. This analysis provides a benchmark, enabling decisionmakers to compare the magnitude of environmental effects of the action alternatives. It is also an example of a reasonable alternative outside the jurisdiction of the agency which must be analyzed . . . . Inclusion of such an analysis in the EIS is necessary to inform the Congress, the public, and the President as intended by NEPA.[48]

Contrary to NEPA, the Agencies have not provided an analysis of the no action alternative that actually "provides a benchmark" for comparison of environmental effects.

Cumulative Impacts

- The Final EA's cumulative impacts analysis is inadequate. For all resource areas, the Final EA lists stressors that are negatively affecting the area's environment, but in all instances the Final EA conclusorily states that the Proposed Action will result in "no significant negative cumulative impacts" Final EA at 4-6 to 4-8. The Final EA provides no explanation why the cumulative effect of the many listed negative impacts are considered by the Agencies to be insignificant. Such "conclusory or unsupported suppositions" will not withstand judicial review. *See McDonnell Douglas Corp. v. U.S. Dep't of Air Force*, 375 F.3d 1182, 1187 (D.C. Cir. 2004).

- In particular, the Final EA's assessment of cumulative impacts on water resources is striking in its lack of substance. The Final EA provides a list of purported activities with vague and unsupported suppositions about the activities' impacts. *See* Final EA at 4-6. For instance, the EA speculates that "[c]hanges to agricultural practices and continued downward trends in animal production could result in positive cumulative effects to water quality," *Id.* at 4-6, without identifying these "changes" or providing any evidence of downward trends, much less that these changes and trends are having a positive cumulative impact on water quality in the area. The string of vague and unsubstantiated assertions that constitute the cumulative impact analysis falls far short of a hard look.

- In fact, the Agencies omit a key fact that is highly relevant to an analysis of cumulative impacts. On October 6, 2015, NPS notified ADEQ that three tributaries to the Buffalo River, including Big Creek, should be listed as "impaired" pursuant to Section 303(d) of the Clean Water Act.[49] The letter from NPS documents NPS and

[48] Memorandum from Nicholas C. Yost, General Counsel, CEQ, to Federal, State, and Local Officials and Other Persons Involved in the NEPA Process at 4 (Mar. 16, 1981), http://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf.

[49] Letter from Kevin G. Cheri, Superintendent, Buffalo National River, to Becky Keogh, Dir., ADEQ (Oct. 6, 2015), http://buffaloriveralliance.org/resources/Documents/NPS%20303(d)%20Letter.pdf.

USGS data showing that Big Creek has minimum dissolved oxygen values well below water quality standards. The low dissolved oxygen recorded by the federal agencies in Big Creek is consistent with the eutrophication and thick algal mats that residents and local community members have observed in Big Creek increasingly in recent years. The photo below of the thick algae in Big Creek was taken by a member of Buffalo River Watershed Alliance in September 2015.

Dr. Brahana's comments appropriately note that the NPS and USGS data, together with water quality data collected by the KHBNR team, show that "Big Creek and its ecosystem are being stressed" and that "[i]mpaired water is flowing directly into the Buffalo National River"[50]—facts that must be, but are not, considered in the Final EA.

Mitigation

- In its response to public comments, the Agencies note that "[e]ffectively, the operating requirements [in C&H's NPDES permit] are mitigation measures built in to the Proposed Action." Final EA, App. B at 7. To the extent the Agencies rely on these mitigation measures to reach a FONSI determination, they are required to "sufficiently demonstrate that the mitigation measures adequately address and remediate the adverse impacts so that they will not significantly affect the environment." *O'Reilly v. U.S. Army Corps of Eng'rs*, 477 F.3d 225, 234 (5th Cir. 2007).

  As the Coalition already pointed out in its September 4, 2015 comments, the Agencies have failed to meet this burden—not least because the NPDES permit is issued pursuant to the Clean Water Act and focuses on ascertaining land application rates

[50] Brahana comments on Draft EA at 10.

pursuant to Arkansas' Phosphorus Index. The NPDES permit does not, by its own terms, address all of the impacts of the CAFO. For instance, the NPDES permit requires a buffer zone in the vicinity of sinkholes, but while "buffers may reduce the suspended load reaching streams and will biologically strip some nutrients," they "will have little effect on pathogenic organisms."[51] It is not clear, moreover, that the NPDES permit would have any mitigative impact on any pharmaceuticals, feed additives, and pesticides used to treat the swine and fields as part of the C&H operations.[52]

III. TO COMPLY WITH NEPA'S MANDATE, THE AGENCIES MUST MAKE A FINDING OF POTENTIAL SIGNIFICANT IMPACTS AND PREPARE AN EIS

"An agency's decision not to prepare an EIS will be considered unreasonable if the agency failed to supply a convincing statement of reasons why potential effects are insignificant." *Choate v. U.S. Army Corps of Eng'rs*, No. 4:07-CV01170-WRW, 2008 WL 4833113, at *6 (E.D. Ark. Nov. 5, 2008) (quoting *Save the Yaak Comm. v. Block*, 840 F.2d 714, 717 (9th Cir. 1988)). Here, the FONSI, based as it is on a deeply flawed and scientifically inaccurate EA, does not provide the convincing statement of reasons required to meet NEPA's standard.

Significance under NEPA "requires considerations of both context and intensity." 40 C.F.R. § 1508.27. Context reflects the fact that "[s]ignificance varies with the setting of the proposed action," and NEPA regulations note that "[b]oth short- and long-term effects are relevant." *Id.* § 1508.27(a). "Intensity" reflects "the severity of impact," and the NEPA regulations identify ten factors that are to be considered in evaluating intensity. In this case, the context—the unprecedented siting of the C&H CAFO in the watershed of the Buffalo National River, which is a national park unit, a beloved state treasure, and a significant driving force behind the local economy—weighs in favor of a finding of significance. When the "intensity" factors are considered in these contexts, it is clear that a finding of potentially significant impacts is warranted and that an EIS must be prepared.

Each of the twelve points in the FONSI, which loosely maps to the intensity factors set forth in the NEPA regulations, are refuted by the Coalition's September 4, 2015 comments and the additional comments above. Numerous intensity factors ignored or wrongly assessed by the Agencies warrant a finding of significant impacts. First, the "[u]nique characteristics of the geographic area," *Id.* § C.F.R. 1508.27(b)(3), including C&H's proximity to a national park unit and a river listed in NPS's Nationwide Rivers Inventory of rivers that potentially qualify as wild, scenic, or recreational river areas,[53] weigh in favor of a finding of significance.

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[51] Kosic at 370 (Ex. 1)

[52] *See* NPS at 2 (Ex. 2) (NPS document proposing a Big Creek monitoring regime that would test for the presence of these chemicals and "provide an early warning system for primary contact and help determine effects on aquatic organisms").

[53] NPS, Conservation and Outdoor Recreation, Nationwide Rivers Inventory, Arkansas Segments, http://www.nps.gov/ncrc/programs/rtca/nri/states/ar.html (last modified Nov. 23, 2004).

Additionally, the highly controversial nature of C&H and the federal government's financial assistance to this CAFO weigh in favor of a finding of significance. *See id.* § 1508.27(b)(4). A federal action is controversial if "a substantial dispute exists as to [its] size, nature or *effect*." *LaFlamme v. Fed Energy Regulatory Comm'n*, 852 F.2d 389, 401-402 (9th Cir. 1988) (internal citations and marks omitted) (emphasis in original). A substantial dispute exists, as here, "when evidence, raised prior to the preparation of an EIS or FONSI, casts serious doubt upon the reasonableness of an agency's conclusions." *Nat'l Parks & Conservation Ass'n v. Babbit*, 241 F.3d 722, 736 (9th Cir. 2001) (internal citation omitted). Expert evidence introduced during the public comment period—including statements presented by hydrogeologist Thomas Aley, President of the Ozark Underground Laboratory; Dr. John Van Brahana, Ph.D., Professor Emeritus of Geosciences at University of Arkansas; Dr. JoAnn Burkholder, Ph.D., William Newal Reynolds Distinguished Professor and Director of Center for Applied Aquatic Ecology at North Carolina State University; Dr. Michael Smolen, Ph.D., retired Professor of Biosystems and Agricultural Engineering at Oklahoma State University; and Dr. Steve Wing, Ph.D., Associate Professor of Epidemiology at University of North Carolina Gillings School of Global Public Health—all seriously call into question the reasonableness of the Agencies' FONSI. Notably, NPS also has identified "[s]ignificant factual errors" and "[m]isrepresentation of data and facts" in the Agencies' analysis.[54] Disagreement by other agencies, together with "responses from conservationists, biologists, and other knowledgeable individuals, all highly critical of the EA and all disputing the EA's conclusion" is "precisely the type of 'controversial' action for which an EIS must be prepared." *Found. for N. Am. Wild Sheep v. U.S. Dep't of Agric.*, 681 F.2d 1172, 1182 (9th Cir. 1982). Because the Agencies have "apparently ignored the conflicting views of other agencies having pertinent expertise," a court "may properly be skeptical as to whether [the EA's] conclusions have a substantial basis . . . ." *Sierra Club v. U.S. Army Corps of Eng'rs*, 701 F.2d 1011, 1030 (2d Cir. 1983).

Further, the degree to which C&H's possible effects on the human environment "involve unique or unknown risks" weighs in favor of a finding of significance. 40 C.F.R. § 1508.27(b)(5). Although it is well-known that C&H is sited in a karst system and Dr. Brahana's dye tracing research has shown that groundwater from an area near three of C&H's fields travel to various caves, springs, and streams, including to the Left Fork of Big Creek,[55] the precise delineation of underground water flow in and around the C&H site have not yet been ascertained. Thus, while the "indicated groundwater connections, and known physical and operational site characteristics" indicate that "contaminant migration may already be occurring, presenting a significant risk for surrounding groundwater bodies [and] surface waters," "[o]nly through additional evaluation such as a determination of groundwater discharges, and a more complete delineation of groundwater divides can the real hazards to private water sources, and the [Buffalo National River] be determined."[56] USGS scientist Timothy Kresse on the BCRET team corroborates this assessment, noting that "Van [Brahana] shows different directions of groundwater flow (bringing into question changes in baseflow between measuring points)" and

[54] Cover letter transmitting NPS comments.

[55] Kosic. at 369-70 (Ex. 1); Brahana Comments on Final EA at 8.

[56] Kosic at 370 (Ex. 1).

that "we don't have perfect delineations of the watershed."[57] NPS too has called for a "dye tracing study for the pond and barn area would help define subsurface hydrology, including groundwater flow direction, transit rates offsite, and areas of groundwater discharge."[58] Mr. Aley concurs, noting that apart from the research undertaken by Dr. Brahana, "no groundwater tracing has been done to determine which local and/or regional springs will receive water and contaminants from the C&H Hog Farm operation. This is basic data essential for an adequate environmental assessment."[59] Where uncertainty such as that about the precise delineation of the subsurface hydrological boundaries "may be resolved by further collection of data, . . . or where the collection of such data may prevent speculation on potential . . . effects," an agency must prepare an EIS. *Nat'l Parks & Conservation Ass'n*, 241 F.3d at 732–33 (internal quotation marks and citations omitted).

In addition, the precedent-setting nature of a decision to provide financial support for a large CAFO in the watershed of an Extraordinary Resource Water and national park unit weighs in favor of a finding of significance. 40 C.F.R. § 1508.27(b)(5). The District Court unequivocally found that the C&H CAFO is "unprecedented." *Buffalo River Watershed Alliance,* 2014 WL 6837005 at *4. It would seem to follow necessarily that the federal government's financial support enabling the construction and operation of this unprecedented facility will set a precedent for future such CAFOs and future such federal financial support. The FONSI, which conclusorily asserts that "[t]he proposed action does not set precedent for FSA or SBA," provides no evidence to the contrary.

Finally, the potentially cumulatively significant impacts of C&H; the degree to which it might affects public health through the infiltration of untreated swine waste into surface waters in which people swim, fish, and paddle, and well water that they drink; and the degree to which C&H may adversely affect endangered or threatened species also favor the preparation of an EIS. *See* 40 C.F.R. §§ 1508.27(b)(2), (7), (9). Consideration of each of these three intensity factors turns largely on C&H's impacts on water quality. Here, it is simply worth reiterating that the conclusion that C&H will not have an adverse impact on water quality squarely contradicts the overwhelming scientific consensus. The Agencies have irrationally disregarded credible and highly-regarded scientific experts who have voiced their expert opinion to the Agencies that C&H—sited as it is on karst and spreading swine waste on fields adjacent to a tributary to the Buffalo River—will or may have significant adverse impacts on water quality. If the Agencies issue a FONSI based on the Final EA as drafted, they will have "entirely failed to consider an important aspect of the problem," in violation of their legal obligations. *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

On remand, the Agencies have undertaken a new assessment, but NEPA requires more than just a larger word count and more pages in an environmental review. It requires an actual hard look at environmental impacts. *Friends of Boundary Waters Wilderness v. Dombeck*, 164

[57] Email from Timothy Kresse, USGS, to Andrew Sharpley, Univ. of Ark. (Oct. 9, 2015) (attached as Exhibit 7).

[58] Ex. 2 at 2.

[59] Aley comments at 6.

F.3d 1115, 1128 (8th Cir. 1999). The Agencies' determination must be "founded on a reasoned evaluation of the relevant factors." *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 378 (1989) (internal quotation marks omitted). For all the reasons set forth by the Coalition in this letter and its earlier comments and attached exhibits, the Agencies have failed to meet their obligations under the law. The Coalition urges the Agencies to re-assess its FONSI and to determine, as the facts and science show, that C&H may have significant impacts warranting an EIS.

Sincerely,

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National Parks Conservation Association
Ozark Society