From: Grant Scarsdale
To: Reg-Comment
Cc: buffalowatershed@gmail.com
Subject: Support for Permanent Moratorium of CAFOs on the Buffalo National River
Date: Friday, September 20, 2019 8:33:18 AM

I fully support the changes proposed by ADEQ to Rule 5 and Rule 6 that would institute a permanent moratorium on issuance of permits for medium and large swine CAFOs in the Buffalo National River watershed.

My support is based upon sound science, and includes the following reasons why this protection should be made permanent.

1. The Buffalo River Watershed is underlain by karst geology, making it highly vulnerable to pollutants from CAFO operations

The bluffs, springs, and caves that make the Buffalo so spectacular and valuable as a nationally-recognized tourism destination also highlight its sensitivity to pollutants. Karst geology is characterized by dissolved and fractured limestone formations, with caves, sinkholes and irregular underground pathways for liquids. Karst geology in the Buffalo River watershed has long been scientifically recognized, but was not considered in the requirements for the NPDES General Permit for CAFOs under Regulation 6, under which the C&H Hog Farm was originally permitted, and which has since lapsed.

Studies that were developed by some of the country's leading geologists and hydrologists during the recent litigation over the C&H Hog Farm have demonstrated the unsuitability of karst geology as a location for a confined animal feeding operation – particularly a swine CAFO, due to the volumes of waste produced and the land-application of those liquid wastes – and the dangers they present to the Buffalo River watershed. ADEQ's staff of highly–qualified scientists also agreed with those conclusions.

2. Rule 5's requirements include considerations for siting and design contained in the Agricultural Waste Management Field Handbook (AWMFH) that disqualify areas underlain with karst geology.

Chapter 4 of the Commission's Regulation (Rule) 5 states that "designs and waste management plans" of CAFOs shall be in compliance with, not only the requirements contained in Rule 5, but also the Field Office Technical Guide and the Agricultural Waste Management Field Handbook (AWMFH). The

AWMFH is very explicit in stating that karst geology underlying a proposed CAFO facility may disqualify a site for a waste storage pond, treatment lagoons, and other means of animal waste storage and application.

3. CAFO waste is applied to pastures using the Arkansas Phosphorus Index (API), which allows build-up of phosphorus in soils and fails to account for groundwater pathways to contaminate the river.

A significant weakness of the API is its failure to consider karst, gravel bars, or any subsurface geological risk factors when determining the risk of waste applications to waters of the state. As the API fails to account for groundwater or karst, this presents undue risks relative to CAFOs in the Buffalo River watershed.

Even aside from the problem of land-application of swine wastes in a karst area, there is the issue of the over-application of wastes to fields pursuant to the API formula used in CAFO nutrient management planning, which allows an operator to distribute phosphorus in excess of crop removal. Such over-application can not only result in the discharge of excess phosphorus through rain events into surface water, but also the leaching of phosphorus ("legacy phosphorus") from the plants and soils over extended periods of time into surface waters.

4. Soils in many waste-application fields in the Buffalo River watershed are too thin to accommodate industrial level applications of CAFO waste

The AWMFH states (651.0504(d) *Soil Characteristics, depth to bedrock*) that a shallow depth of topsoil to bedrock or cemented pan often does not allow for sufficient filtration or retention of agricultural wastes or agricultural waste mineralization by-products. A top soil depth of less than 40 inches limits plant growth and root penetration and reduces soil agricultural waste adsorptive capacity.

Thus, agricultural wastes that are continually applied to thin soils over karst geology, such as those in the Buffalo River watershed, can overload the soil retention capacity. This allows waste and mineralization byproducts to accumulate at the rock interface, or, where karst geology is present, to pass through the karst to ground water, aquifers, and downgradient surface waters.

5. Avoidance of repeating future public payouts

It is difficult to believe that, after the events of the past five years, any other persons or organizations would apply for a permit for another CAFO in the Buffalo River watershed, or that such a permit would be granted. Nevertheless, memories fade, and the possibility that could occur will become greater as the years go by in the absence of a moratorium. The State and others are investing considerable sums of money to resolve the conflict that arose from the C&H permit, and we do not want to see the conflict repeat itself. But, without a moratorium, that investment could be for naught.

I also do not want the C&H settlement to incentivize future permit applicants to acquire another CAFO permit in the Buffalo River watershed with the mistaken understanding that this could lead to another buy-out. This landmark agreement should not be mistakenly considered as a way to turn a profit at the expense of the taxpayer.

I urge the Commission to adopt the proposed modifications to Rule 5 and 6, permanently prohibiting the development of swine medium-and-large CAFOs in the Buffalo River watershed.

I incorporate and adopt all other comments supportive of a permanent moratorium on medium and large CAFOs in the Buffalo River watershed, and reserve the right to submit additional, more detailed comments in writing.

Respectfully submitted,

Grant Scarsdale