

Subject: sludge and population growth
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Sludge and population growth

My name is: Pamela Groben, MD and I am a physician and Pathologist at UNC and was formerly Director of the Clinical Laboratory at Alamance Regional Medical Center until 1996. I have lived on Orange/Alamance county line since 1985 and I care about land and people of this area.

I am not a scientist, but have an appreciation of science and the scientific method of study. We don't know much about sludge. The rules were developed in the 80s and 90s and in my opinion the application of sludge is an uncontrolled experiment on the local population (human and animal) and land.

The NC Dept of Health issued a report called "Human Health Risk Evaluation of Land application of sewage sludge/Biosolids" in November of 2005. A few quotes from that report confirm what we don't know and are not reassuring about what we do know.

"It is not known how these setback distances were determined." "...There is some published epidemiologic evidence that suggests these setback distances may not be adequate to eliminate the risk to public health."

"There are no specific restrictions in the state permit rules on frequency of land application at a site."

According to the report, groundwater and private well contamination by nitrates from sludge has occurred and the report goes on to state that the contamination was associated with excessive frequency of application AND can occur when the current rules are followed.

The report states that there are no current requirements for monitoring of wells so we don't know what other types of contamination have occurred.

Proposed DENR (Department of environment and Natural Resources) rules specify criteria to limit the concentration of the nine regulated inorganic compounds: arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, and zinc and to set forth criteria for pathogen reduction, but apparently there are no limitations on the amount of biosolids that can be applied to a particular site. There may be some controversy about the pathogens accumulating over time, but there is no controversy about the accumulation of heavy metals over time. These are elements and once there they are always there. Forensic scientists (and the general public in NC) know that if you murder someone with arsenic you can dig them up many years later and the arsenic is still there. We just read about a park in Greensboro closing at a site of an old wastewater treatment site because of heavy metal contamination. The list of other carcinogens that have been found in sludge is long.

So... the practice of land application of sludge has problems and we can work on making it safer, but is anyone planning for alternative methods of disposing of sludge? With the dramatic population growth expected to this area in the next twenty five years, we are going to have MORE sludge, LESS

land to spread it on and much more opportunity for sludge to affect the quality of life and health of the population. It is going to be harder and harder to justify this wholesale contamination of the environment. Who wants to live in a subdivision where sludge has been spread for 25 years? Where are we going to grow our food? The writing is on the wall. This practice is going to become more and more unacceptable to general public as it gets closer and closer to their homes, school yards and playgrounds. Plans are urgently needed for an alternative method of disposal and the safeguards that BRENL proposes must be implemented until an alternative method of disposal can be found. Thank you for your consideration. Pamela Groben, MD