



Public Appeal and Comments by Susan Dayton - Jan 16, 2008
Spraying of sewage sludge on lands in CASWELL, ALAMANCE, ORANGE, CHATHAM, AND RANDOLPH counties. Please request a public hearing!

Attention Caswell, Alamance, Orange, Chatham, and Randolph county residents! Each year the City of Burlington spreads millions of gallons of sewage sludge on our land. Alamance County, by far, receives the greatest volumes of sludges at 11,154,000 gallons. Others are: Chatham County (5,382,000 gallons); Randolph (5,356,000 gallons); Caswell (3,952,000 gallons), and Orange County (3,250,000 gallons). Thus, in 2006, the City of Burlington dumped 29,094,000 gallons of sewage sludge on 5 counties in NC. These numbers are based on 2006 field applications recorded by Synagro (the applier) and filed with the DENR/DWQ.

The City of Burlington's permit for spraying sewage sludge in 5 counties is up for renewal and there are several issues that need to be addressed. These issues include: Applying sludge for years on an expired permit; Non-compliance with the new 2T rules that outline new guidelines and requirements for sludge applications; Adding additional acreage to an existing permit for sludge applications without filing for a new permit; Lack of state oversight and enforcement re: sludge applications; Lack of a clear communication plan with counties receiving sludge; Lack of an effective mechanism for public comment and public oversight regarding health concerns and other issues related to sludge applications.

Ocean dumping of sewage sludge was banned by EPA in 1988 (after a failed attempt in 1977) due to the devastation of marine ecosystems. Today, the majority of sludge is applied to land. Many people have experienced unexplained illnesses which they attribute to sludge applications. Many people have not. We know there are thousands of toxic chemicals and compounds in sludge that are not removed by current, conventional methods at wastewater treatment plants, and research has shown that many of these toxic compounds are detrimental to wildlife and ecosystems. However, we do not know the full implications of sludge on public health.

Our concerns include the environmental impacts of land application on surface water, ground water, and wildlife ecosystems; potential risks to public health; and the general lack of oversight and enforcement of North Carolina's regulations concerning land application of sewage sludge.

Sludge is a problem that belongs to all of us. There have been NO PUBLIC



HEARINGS since the spreading of sewage sludge began on NC lands. If we cannot stop the land application of sludge and replace it with a safer, better method of disposal, perhaps in the meantime we can make land application safer and provide a mechanism for citizen input as a part of the process.

Please consider writing a letter to the NCDENR/Division of Water Quality (DWQ) requesting a public hearing re: the City of Burlington's permit renewal for land application of sludge. There has never been a state-sponsored public hearing on land applications of sewage sludge in the history of NC. Your letter needn't be long. Please feel free to identify one of the issues outlined above as a reason for a hearing. Or you may add more of your own.

Please send or email your letter NO LATER THAN January 31, 2008, to:
Ms. Coleen Sullins, Director
NCDENR/DWQ
1617 Mail Service Center
Raleigh, NC 27699
Email:

Also consider calling your state representatives and county commissioners or your county managers and ask them to write a letter requesting a hearing as well. It is IMPORTANT that we educate our county commissioners about sludge and the important role that counties play in regulation and oversight of sludge applications. If you have any questions, please feel free to call or email me. Thank you, all!

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Environmental group will challenge renewal of city permit

May 12, 2008 - 6:07 PM

Michael D. Abernethy / Times-News Burlington, NC

A local environmental group will challenge the city of Burlington's permit renewal for the land application of sewage solids Tuesday.

Representatives of the state Division of Water Quality will hold a public hearing for Burlington's land application of spreading treated sewage solids, or bio-solids, in Alamance and five neighboring counties at Alamance Community College's auditorium at 7 p.m. Tuesday. Registration for the public hearing begins at 6:30 p.m. Tuesday.

Solids are removed from waste water during the treatment process. Water is released back into streams and rivers, and solids are currently spread on land as fertilizer.

Burlington contracts with Synagro to land apply the solids.

The Blue Ridge Environmental Defense League will challenge this process during the state's first public hearing on land application of sewage solids. Members claim that spreading bio-solids, or what they call sewage sludge, on land has harmful effects on the health of residents and the environment through heavy metals, hormones, pharmaceuticals and other untreated substances in human waste.

The group wants more information given to the public about when, where and how much bio-solids are applied to areas, and wants notification given to neighbors in areas where bio-solids are land-applied.

"This is an opportunity to work with the system to change the system for people in rural communities and the environment," said BREDL spokesperson Sue Dayton on Monday. "Being the first state-held public hearing on a municipality's permit renewal for land application ... I think it's long overdue. In my opinion, the whole process needs an overhaul for the public's right to know.

"We're asking for additional procedures until a better method (of solid waste disposal) is found," she said. "But we do need to get it off the land."

But Steve Shoaf, Burlington's utilities director, says spreading bio-solids is an accepted practice by the Environmental Protection Agency and state environmental regulators. Land application is also considered one of the best methods - along with incineration and land filling - waste water facilities have to get rid of sewage solids.



"I think we're running a very conscientious and responsible program," Shoaf said. "If they (BREDL) are wanting to talk about a referendum on land application at large, that's a different issue. They'll use our permit as a way to do that: to broaden the discussion. All the other land application projects nationwide ... have been very successful, with very few problems when done under a responsible program with accepted technology for regulators."

Shoaf expects the city's permit will be renewed.

Before speaking at the meeting, BREDL will hold a press conference about land application at 6 p.m. Tuesday. There, community members affected by land application will describe their experiences living near Burlington's bio-solid spreading in Alamance, Chatham, Caswell, Guilford, Orange and Randolph counties.

The DWQ permit places restrictions on the amounts of metals - such as zinc, mercury and lead - that can be land-applied and how near water sources, property lines and residences the city can spread bio-solids. The permit also requires soil testing where bio-solids are spread.

Land application permits go up for renewal every five years by the Land Application Unit of the Aquifer Protection Section of the North Carolina Division of Water Quality.

The DWQ will accept public comment for the hearing through May 30. Comments may be mailed to the N.C. Department of Environment and Natural Resources, 1636 Mail Service Center, Raleigh, NC 27399-1636



Burlington waits on permit decision, has no alternative to land-spreading sewage sludge

May 16, 2008 - 6:43 PM

Michael D. Abernethy / Times-News Burlington, NC

A closer look: Burlington's permit for land-applying sewage sludge, or bio-solids, is up for renewal this year. The state's Environmental Management Commission will review the permit later this year before it decides to renew or deny the permit.

- The Department of Environment and Natural Resources' Division of Water Quality will take public comment on the permit process through May 30. Written comment can be mailed to: N.C. Department of Environment and Natural Resources, 1636 Mail Service Center, Raleigh, NC 27399-1636

- The five-year permit would allow Burlington's three waste water facilities to spread a total of 7,996 dry tons of bio-solids each year in Alamance, Chatham, Caswell, Guilford, Orange and Randolph counties

- Soil and sample testing must be completed at least once a quarter and as much as six times a year for heavy metals and as many as 40 other chemical substances including arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium and zinc.

The Orange County woman who initiated this week's public hearing on Burlington's spreading of sewage sludge in 2004 says her concerns have only grown in the four years it took the state to begin the city's permit renewal process.

Nancy Holt applied for the public hearing in January 2004, citing illnesses she says began after sewage sludge began being spread on nearby farmland in 1991. Since then, neighbors and pets have gotten staph infections and skin and respiratory irritations. She attributes a neighbor's brain tumor to the sewage sludge, or bio-solids.

"The problem is not with Burlington," Holt said Friday. "Burlington is as compliant as every other municipality in the state. In fact, they're probably more compliant. This is not about beating up on Burlington. It's about trying to get the state of North Carolina to make more protective regulations."

Tuesday's hearing by the state's Division of Water Quality - which attracted about 70 people, both for and against land-applying sewage sludge - was the first public hearing over land-applying sewage sludge in state history.



Burlington has land-applied bio-solids in Alamance and five surrounding counties since 1986. The process is approved by the Environmental Protection Agency and under five-year permits by the DWQ. Solids are removed from waste water during the treatment process. Water is released back into streams and rivers, and solids are currently spread on land as fertilizer.

Burlington reapplied for its permit in 2003. That permit technically expired in 2006 but departmental changes and bureaucratic delays in the DWQ kept the state from renewing the permit on schedule. Because of those delays, Burlington's expired permit is good until the state decides to renew or decline it later this year.

The DWQ will take public comment on the permit through May 30.

There were few surprises at Tuesday's hearing, said Burlington Utilities Director Steve Shoaf.

"I think I knew where the people who were opposing this stood. Certainly we tried to show ... the responsible way we go about our jobs," he said.

Shoaf expects Burlington's permit to be renewed by the state. Land application is also considered one of the best methods - along with incineration and land filling - for disposing of sewage solids.

"If by chance the permit is not renewed, I think this would be the shot heard around the world. If they refuse to renew the permit, we've got a whole other set of problems. State government would be broken at that point," Shoaf said. "If the land-application permit wasn't renewed, it would be such a monumental change that it would require some time to even contemplate (what we would do with bio-solids in that case). We would probably have to get some sort of court injunction and continue."

Tuesday's attendees came from Alamance, Chatham, Caswell, Guilford, Orange and Randolph counties, where Burlington has permits to land apply bio-solids.

Since members of the local Blue Ridge Environmental Defense League began rattling the upcoming public hearings at regional municipal meetings - convincing the Orange County Board of Commissioners to pass a resolution for further investigation into spreading sewage sludge and the Chatham County Board of Commissioners to write a letter requesting a public hearing - local attention to spreading bio-solids has grown.

BREDL is calling for better public notification systems to be used and more thorough testing of land and water around where sewage spreading is done.



"There's so many things that we don't know and the municipality doesn't know. We need to all think of alternatives," Holt said. "North Carolina has the ability to have more stringent testing. We have to be smarter than we've been. Let's be smarter in this state than the EPA."



Burlington in middle of sludge debate

July 21, 2008 - 4:50 PM

Staff and wire report – Times-News Burlington, NC

It happens.

Tons of it, accumulating with every toilet flush.

But agreement on waste water residuals - what's left of sewage after treated water is discharged back into rivers and streams - pretty much stops there.

There isn't even agreement on what to call it. Environmentalists and some researchers call it sewage sludge. The industry term is "biosolids."

Some farmers swear by it, saying the free nutrients keep them in business as the costs of oil-dependent fertilizer continue to rise.

But some people living near the farms where it's spread say the heavy metals, chemicals and pharmaceuticals found in some sludge make them sick.

Now, the city of Burlington finds itself in the middle of a debate over the safety of using waste water residuals.

The Environmental Protection Agency says the practice is safe if standards are followed.

Researchers say there isn't enough science to know for sure, but two studies have been launched recently, including one that will track the health woes of people living near sludge-spreading sites in North Carolina and Virginia.

Environmentalists are asking for greater oversight and more science. This year they successfully requested the state's first public hearing on an application permit, Burlington's request for renewed permission to spread sludge in Orange, Chatham and other counties.

Waste water treatment plants around the country face the same challenge of disposing of residuals, mixtures of human waste, industrial discharges and whatever else goes down drains.

They typically have three options: Burn it, bury it or spread it on land.



Much of the nutrient-rich material goes to farmers as free fertilizer. Raleigh, Durham and the Orange Water and Sewer Authority all spread sludge on farmland.

Biosolids are a cheap, effective fertilizer - less expensive than chemical fertilizers, said Karen McAdams, a farm agent for the cooperative extension service.

Burlington has spread biosolids in surrounding counties since 1986.

Burlington reapplied for its five-year permit in 2003. That permit technically expired in 2006 but departmental changes and bureaucratic delays in the Division of Water Quality kept the state from renewing the permit on schedule. Because of those delays, Burlington's expired permit is good until the state decides to renew or decline it later this year.

Chatham County farmer Gary Moon has had biosolids applied to his pastures since 1995.

"I think it's just as safe, if not safer than chemical fertilizer," he said. "Also, it makes the grass grow better than anything we've ever tried."

Moon said he and his family live on the farm and that they've never had any health problems. Nor have the beef cattle he grazes on the fields, he said. Moon said opponents' claims are unproven and that he's satisfied with the federal oversight of the practice.

Lower fertilizer costs mean lower food costs, Moon said. Without sludge, he added, "There'd be a whole lot of farmers going out of business."

Humans have put their waste and animal manure on fields probably as long as there have been farms.

But industrial society - and its waste - is different, says Steve Wing, an epidemiologist at UNC-Chapel Hill.

"A lot of waste, the human waste, is mixed with chemical waste," said Wing. "There are metals. There are bacteria and viruses and parasites. There are other types of chemicals that are used in industrial processes."

But sludge contents can vary widely from city to city and, potentially, from truckload to truckload.



"We like not to talk about sludge, but sludges ... because you can't make these generalizations," said Murray McBride, director of the Waste Management Institute at Cornell University.

"You can't really say for sure what's going to be there," said McBride, a soil chemist.

The EPA sets standards for sludge contents and application and how soon fields can be grazed or harvested after spreading.

The agency regulates levels of metals and other toxins such as arsenic, lead and mercury. It sets standards for reducing pathogens such as viruses, bacteria and parasites during sewage treatment.

There are also state rules for how close biosolids can be spread near water sources and adjoining properties.

Much of the biosolids spread on farms are "Class B" biosolids and have less-stringent requirements for pathogen content. More processed "Class A" biosolids, which contain no detectable pathogens, can be given or sold to the public.

The state Division of Water Quality issues permits to waste water treatment plants for biosolid application and regulates the practice at the state level.

Environmentalists are asking the state for increased testing, wider buffers, and written public notification when biosolids are applied.

NANCY HOLT HAS campaigned for years against land application.

Holt says she has an inoperable brain tumor and attributes it to toxins in biosolids spread on two nearby farms.

Holt, who lives in the Bradshaw Quarry Road area of western Orange County, keeps a long list of her neighbors' health problems, and she persuaded Orange County to fund a study to investigate surface water and air quality at applications.

"Human health has got to have more value," she said. "Right now, we're collateral damage to the chemical industry, to the sludge industry."

There's a lot of anecdotal information about health problems related to land application, said McBride, the director of the Cornell institute.



"We get calls all the time about people exposed near sludge application sites and getting quite sick," he said. But there are few peer-reviewed studies, he said.

Wing, the epidemiologist at UNC, is beginning a multiyear study of lung function and symptoms of people living near application sites in North Carolina and Virginia.

But it would be extremely difficult to verify claims of cancer clusters, Wing said.

"If people around these sludge sites are getting cancer because of the sludge, if that were true, I don't think we'd be able to figure it out ... because we don't have enough measurements."

Besides Wing, another UNC researcher is beginning a project involving biosolids. Chip Simmons, an environmental microbiologist, has money from Orange County to study whether and how certain microorganisms move away from application sites.

But he cautions that his work will be only a preliminary study. "We probably will not be able to generate enough data to make heads or tails out of it," Simmons said. His hope is to learn more about how to study application sites and attract more money.

Simmons, whose work is being funded by a \$10,000 contract with the Orange County Health Department, said he has had trouble finding a site to study since the money was approved in 2006.

Landowners, he said, have been wary of the research project because of media attention to biosolids issues.

McBride, the soil chemist, said he doesn't think more research is the answer.

"There are so many chemicals in sludges," he said, and more being constantly developed. "I don't think the research can ever catch up."

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