Landowners concerned about dumping of D.C. sewage in Albemarle written by Newspack Team | January 30, 2011

¥ By Sean Tubbs

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On Jan. 12, trucks carrying sewage from Washington's main wastewater treatment plant arrived at Agnes Fotta's farm on Reas Ford Road, less than half a mile from the South Fork Rivanna Reservoir.

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Sludge being applied on a field in Campbell County (Daily Progress file photo)

They began spraying treated human waste, also known as biosolids or sludge, as a way to both fertilize land and dispose of the waste.

Since 2001, Recyc Systems of Culpeper has held a permit to apply the material on land in Albemarle County. Last October, the Virginia Department of Environmental Quality approved a permit modification allowing the firm to apply sludge to an additional 590 acres, bringing the total in Albemarle to 6,438 acres.

No money is exchanged between the landowner and Recyc Systems. Recyc is paid by the wastewater treatment plant to haul the material away, and the landowner benefits by getting free fertilizer.

Some county landowners are growing concerned about the use of biosolids and the growth of its application.

"Sewage sludge was previously dumped in the ocean but this practice was banned in 1988," said Earlysville resident Vincent Lytle. "Now that same sludge is being dumped in our backyards."

Lytle first learned about sludge when he received a notification from the DEQ about the permit modification that was sent to the Loftlands Glen Homeowners' Association. He contends biosolids are filled with heavy metals, pathogens and pharmaceutical waste.

He is seeking a public forum to evaluate whether the practice is safe.

However, Lytle was told a public hearing was not needed because DEQ rules only require one if the permit holder seeks to double the amount of land.

At least one member of the

Board of Supervisors

is concerned about the issue.

"We're starting to see more and more problems with biosolids being directly delivered onto the fields," said Supervisor

Ann H. Mallek

. "It's starting to creep up against neighborhoods now and it's something we're going to have to deal with."

An industry spokesman defends the practice as environmentally sound.

"We hear those concerns expressed and they are legitimate, but they have been addressed in research and in the regulatory process," said Ned Beecher, executive director of the North East Biosolids and Residuals Association.

Beecher acknowledged that heavy metals are present in biosolids, but only in trace amounts that pose no threat if applications are controlled.

"Research continues but the risk is not considered to be significant," Beecher said.

Officials with Recyc Systems declined a request for an interview, but the

company's website

claims the practice is safe.

"The good news about biosolids is that they are totally recyclable," states the website. "Because they are organic, they can (and should) be returned to the earth as fertilizer for plants. ... Field research has shown that biosolid nutrients work better than chemical fertilizers for plants, and increase crop yields."

In a section on safety, Recyc's website points to a 1992 EPA study that claimed there had been no documentation of biosolids causing illness or disease.

But since then, the U.S. Environmental Protection Agency has conducted more research to better understand the chemical composition of treated human waste.

In January 2009, the EPA

released a study

that found there were 145 known pollutants, including steroids, hormones and heavy metals. Research is ongoing, but not fast enough, according to one critic of sludge.

"What has not been determined is what the safe limit is for the contaminants in the environment," said Ed Kondis, a retired landowner from Fauquier County who became involved in the campaign to stop sludge after he learned a nearby farmer had agreed to accept it.

Kondis said the government's approach has been to approve permits before demonstrating that the application of sludge is safe. Instead, he said they should have sought to do no harm.

"There have been no scientific studies done that prove it is safe for public health," Kondis said.

In 2007, the General Assembly commissioned an expert panel to review the application of biosolids to see if they are safe and if they affect property values.

"The panel uncovered no evidence or literature verifying a causal link between biosolids and illness, recognizing current gaps in the science and knowledge surrounding this issue," states the executive summary.

"While the current scientific evidence does not establish a specific chemical or biological agent causeand-effect link between citizen health complaints and the land application of biosolids, the panel does recognize that some individuals residing in close proximity to biosolids land application sites have reported varied adverse health impacts."

The

Rivanna Water & Sewer Authority

takes no position on the practice, according to Executive Director Thomas L. Frederick. He said the RWSA pays McGill Environmental Systems \$43 per ton shipped to their facility in Waverly.

Until recently, biosolids were regulated by the Virginia Department of Health, but the General Assembly handed the approval process to the Department of Environmental Quality in 2007.

"I would say that biosolids are probably the most regulated organic material, tighter than fertilizer and animal residuals," said Gary Flory, water compliance officer for the DEQ's Shenandoah Valley office, and the man responsible for granting the permit.

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Download DEQ's October 2010 permit modification for Recyc Systems in Albemarle County

The terms of the permit require Recyc to notify localities 100 days before application.

The firm must notify the DEQ 14 days before application, but Flory said it often happens that they are notified on the day of application.

The permit restricts what agricultural activities can occur on the land after application. For instance, livestock are not allowed to graze for 30 days after application to ensure that any pathogens that are present will have died.

To be granted a permit, operators must develop a plan to ensure nitrogen and phosphorous do not enter the watershed and buffer zones must be established.

Flory said Recyc Systems has never been cited for improperly discharging sludge in Albemarle.

"We have a field presence to make sure that doesn't happen," Flory said. "We do some inspections to make sure they're flagging the buffers so you don't have impact to groundwater."

However, he said Recyc is currently being cited for two applications of sludge that occurred before the 100-day notification period to the county was up. Neither was on Fotta's land.

Recyc's permit has an expiration date of June 30, 2019, but Flory said it can be revoked "if there is a change in the science or current knowledge."

It is unclear what, if anything, the county can do to regulate the practice.

"The county has limited authority related to the land application of sewage sludge under state law," said Deputy County Attorney Greg Kamptner in an e-mail to Supervisor Dennis S. Rooker, who asked for the information in response to a request from Lytle.

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Blanton v. Amelia County

, the Virginia Supreme Court ruled that local zoning regulations banning the practice are pre-empted by state law, according to Kamptner.

"DEQ finds out about a planned application of sewage sludge the day before a land application will occur and if it can free up an inspector, it does so," Kamptner said.

Sludge has not yet been applied to Lytle's neighbor's land, and he remains concerned about the possibility of his family's health being affected after it is.

"Why should I be subjected to the risk that my neighbors are willing to take?" Lytle asked.

Mallek sounds the same note.

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Daily Progress file photo showing sludge being applied in Albemarle County

"The unknowns in the biosolids are what alarms me," Mallek said. "I predict that in another decade a decision will be made that these are not healthy behaviors and we should stop."

However, Beecher said he does not think alternatives to using sludge as fertilizer are as attractive.

"The other options are to incinerate or put it in a landfill, both of which do not take advantage of the nutrients," Beecher said. "However, it should be done with the understanding of the community."

He said the benefits of returning organic material to soil outweighed the risks.

"Our soils have been depleted of organic matter," Beecher said. "Nutrients provide additional support for better plant growth than can be attained with commercial fertilizer."