



COMMONWEALTH of VIRGINIA

Office of the Governor

P.O. Box 1475
Richmond, Virginia 23218

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

(804) 786-0044
Fax: (804) 371-8333
TTY: (804) 786-7765

December 23, 2004

Dr. Lynton S. Land
125 Airstrip Lane
P.O. Box 539
Ophelia, VA 22530

Dear Dr. Land:

Thank you for bringing your concerns regarding the potential for nitrogen and phosphorus losses resulting from the land application of sewage sludge and manure. I have shared your concerns with the Department of Conservation and Recreation and department staff believes that several of your technical concerns have merit. Concerning nitrogen in sludge and manure, it is true that significantly less than 100% of the total nitrogen content is credited toward crop requirements. This is because some of the nitrogen is converted to more stable forms in the soil such as humus that is believed to convert to inorganic forms of nitrogen that crops can consume at a very slow rate, with the exact timing and rate of the release being somewhat unpredictable due to weather. Other nitrogen is lost to the atmosphere, and depending on the forms of nitrogen released, some is likely redeposited in the watershed while some is in inert forms of nitrogen gas.

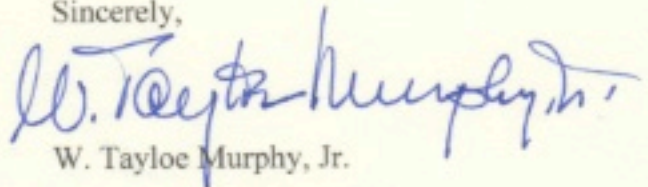
The potential loss of nitrogen from sludge and manure is greater if the materials are land applied far ahead of planting and times when plants will need nitrogen. The Department of Conservation and Recreation is revising its Nutrient Management Training and Certification regulations that will control the technical content of how these plans are written in Virginia. The department intends to tighten the timing requirements for land application relative to times of crop demand for nutrients. Admittedly, this will not fully address the issues you raise relative to nitrogen, but will improve the use efficiency of applied nitrogen and reduce the potential for losses to ground and surface waters.

Regarding the phosphorus issues you raise, the Department of Conservation and Recreation is also proposing phosphorus management requirements for all nutrient management plans. Since a significant quantity of biosolids are imported into Virginia from other jurisdictions, some of which are even from sources outside of the Chesapeake Bay watershed, we need to do a better job of accounting and managing nutrients from biosolids that are land applied in Virginia so that we do not convert some other jurisdiction's point source problem into a Virginia non-point source problem.

Dr. Lynton S. Land
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I am aware that the 2003 Virginia General Assembly placed a requirement that the Board of Health promulgate regulations pertaining to the land application of sewage sludge to require nutrient management plans on all sewage sludge application sites. It is my understanding from Secretary Woods that the Department of Health is working to establish draft regulatory language to fulfill the Department of Health mandate to require nutrient management plans on all sewage sludge application sites. Once these regulations are revised along with the Department of Conservation and Recreation's nutrient management planning regulations, I believe we will have the necessary environmental safeguards in place pertaining to the land application of these materials.

Sincerely,

A handwritten signature in blue ink that reads "W. Tayloe Murphy, Jr." The signature is written in a cursive style with a large initial "W" and a long, sweeping underline.

W. Tayloe Murphy, Jr.