

125 Airstrip Lane
P. O. Box 539
Ophelia VA 22530
February 28, 2001

Dr. Robert Stroube, Acting Commissioner, VDH
P. O. Box 2448
Richmond VA 23218

Dear Dr. Stroube:

The **Code of Virginia** states, in part: "B. The Board of Healthshall promulgate regulations to ensure that (iii) the escape of sewage sludge into state waters will be prevented." (my emphasis). I submit that gulls foraging on fields to which sewage sludge has been applied guarantee the escape of bacteria and increase the natural bacterial pollution of state waters. Not only are tidewaters restricted for the harvesting of shellfish as a result of high levels of bacteria, but the waters are also formally designated as "impaired" under the Clean Water Act.

Your two page response of December 21 deals with this specific issue in exactly two sentences. You stated "No information has been reported in the literature that indicates that birds contribute to water pollution through transport of biosolids." There is absolutely no doubt that birds contribute to bacterial pollution of waterways. The article entitled "Coliform Contamination of a Coastal Embayment: Sources and Transport Pathways (Env. Sci. Tech. 1996, v. 30, p. 1872-1881) clearly documents water birds as causing at least 2/3 of the contamination in that Massachusetts Bay, where direct defecation in the water was the cause. There is, in fact, a very large scientific literature on contamination of water by various kinds of birds, especially for *Salmonella* and *Campylobacter* (e.g. "Study of the bacterial content of Ring-bill gull droppings...." 2000 Wat. Res. v. 34, p. 1089-1096). Gulls are known to feed at sewage outfalls and contaminate nearby waterways (e.g. "Abundance, Diet and *Salmonella* contamination of gulls feeding at sewage outfalls" 2000 Wat. Res. v. 34, p. 2653-2660). I seriously doubt that you, or any microbiologist, would dispute, in a court of law, the premise that birds which land in the water contaminate that water after foraging in fields in which trillions of bacteria per truckload had recently been spread. Gulls are known to be highly resourceful and aggressive opportunistic omnivores, and several states such as Massachusetts and New Jersey have gull control programs which attempt to reduce the transmission of disease from landfills.

You also stated "Further, our staff has not observed any significant bird activity on land application sites either during or following these

operations that could result in damage to adjacent water quality." At several VDH meetings in Heathsville, Ms. D. Lopasic led us to believe that because VDH has only two inspectors for the entire state, most of the actual spreading operations are not monitored. If this is incorrect, please correct this misimpression, and tell me what percentage of the actual spreading is directly observed by VDH, and how often follow-up observations are made. As far as birds are concerned, they are such a natural part of the landscape, and so unremarkable on recently tilled fields, as to be hardly worthy of note. At a hearing in Heathsville on Feb. 14, a representative of Milton F. Wright Trucking, Inc. contradicted your statement about bird activity before the Board of Supervisors in response to a direct question. You may rest assured that quantitative observations are easily made to confirm or refute your assertion that bird activity is insignificant after sludge has been spread in tidewater Virginia.

The solution to this problem is both simple and obvious. There are very few counties in Virginia where the Shellfish Division imposes harvesting restrictions and where permits for the land application of sewage sludge are granted. If VDH continues to approve permits in those counties, now that this problem has been articulated, then VDH is clearly in conscious violation of both the Code of Virginia and the Clean Water Act, in my opinion.

I would appreciate your response to two direct questions, which apply specifically to Northumberland County:

- 1) Do you concur with the current scientific consensus that water birds are an important natural vector of bacterial contamination of impaired waterways, and
- 2) Do you concur that there is a near-certain likelihood that gulls foraging in fields to which sewage sludge has recently been applied (say within 30 days) will further contaminate waterways on which they land by both the direct transport of bacteria and in their feces?

I look forward to an official response from the senior administrator of VDH to these two specific questions and to this specific issue.

Yours sincerely,

Dr. Lynton S. Land

cc: Dr. Croonenberghs, VDH; DCR[#]; DEQ[#]; EPA[#]; NAS[#]; Gov. Warner[#]; Del. Pollard; Sen. Chichester; Sen. Bolling[#]; Rep. Davis; Sec. Murphy[#]; Sec. Woods[#]; Northumberland County Board of Supervisors; Doug Jenkins, Milton Wright Trucking[#] (#Includes cover letter).