125 Airstrip Lane P. O. Box 539 Ophelia VA 22530 June 6, 2002

Dr. R. B. Stroube, State Health Commissioner Department of Health P. O. Box 2448 Richmond VA 23218

Dear Dr. Stroube

I am gratified that your letter of March 18, 2002, acknowledges that you accept that birds, especially gulls, are vectors of bacterial contamination of waterways. Attached is a bibliography of peer-reviewed scientific publications, which I am sure is incomplete, supporting that incontrovertible fact. It is obvious, and not requiring scientific "proof", that birds which land in water after foraging on fields to which Class B sewage sludge has been land-applied, will contaminate that water with bacteria from the sludge through simple physical transport, and possibly through their feces.

Enclosed are two photographs taken on March 28, 2002, between 10:30 and 11:30 AM, from VA 653. The field is east of VA 3, between Warsaw and Lyells, in Richmond County. The site is less than 2 miles from Totuskey Creek, an impaired waterway restricted for the harvesting of shellfish. Sludge had been spread on this field the previous day. As incorporation proceeded, Herring Gulls (Larus argentas) landed behind the tractor and foraged actively, while other birds slept in furrows that had been previously disked. I counted more than 400 birds. Photograph A shows a flock of approximately 200 birds "sleeping" in the foreground, while in the background more birds are actively foraging behind the tractor. Photograph B, taken somewhat later, shows the long stream of birds behind the tractor, while the flock of "sleeping" birds remained in the field (upper right). I trust you will retract your previous contention (Dec. 21, 2002) that VDH "... has not observed any significant bird activity on land application sites either during or following these operations..." as being due to VDH's lack of observations, not the absence of birds. As every farmer knows, "Birds follow the plow."

You objected to my assertion of 02/28/01 that "there are very few counties in Virginia where the Division of Shellfish Sanitation imposes harvesting restrictions <u>and</u> where permits for land application of sewage sludge are granted." The following data confirm that assertion. Data for

land application of sludge in 2000 are from the most recent EPA Inspector General's report, which can be found online at (www.epa.gov/owow/tmdl. This second IG report is even more highly critical of EPA's, and by extension, VDH's policies regarding the land application of sewage sludge than was true of the first IG report. Impairments, and restrictions on the harvesting of shellfish, are from www.epa.gov/owow/tmdl.

<u>County</u>	dry tons sludge spread	waterways impaired
Northumberlan	d 0	38
Westmoreland	17185	25
Lancaster	0	24
King George	6203	8
Richmond	1612	4
Essex	5958	3
King William	14744	2

Sewage sludge is not the cause of shellfish closings, which are almost certainly due primarily to bacterial contamination by wildlife. But the land application of sewage sludge unquestionably worsens an already unsatisfactory situation. By granting permits for the land application of sewage sludge in these counties, VDH sanctions the import of exceedingly high numbers of fecal coliform bacteria (as well as other potentially dangerous microbes such as *Salmonella*) into areas where shellfish closures and EPA impairments exist because of high concentrations of those same bacteria. This is not only a violation of common sense, but a clear violation of the Code of Virginia (§ 32.1 164.5), which requires VDH "...to ensure that.....(ii) land application, marketing and distribution of sewage sludge is performed in a manner that will protect public health and the environment, and (iii) the escape, flow or discharge of sewage sludge into state waters, in a manner that would cause pollution of state waters, as those are defined in § 62.1-44.3, will be prevented."

Yours sincerely,

Dr. Lynton S. Land

cc: DEQ[#]; EPA[#]; Gov. Warner; Del. Pollard; Sen. Chichester; Sen. Bolling[#]; Rep. Davis; Sec. Murphy[#]; Sec. Woods[#]; Northumberland County Board of Supervisors; Doug Jenkins.

(*Includes cover letter).