

125 Airstrip Lane
P. O. Box 539
Ophelia VA 22530
March 24, 2006

Mark S. Alling
Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen VA 23060

Dear Mark,

It has come to my attention that you stated publicly at a recent TMDL meeting in Lancaster County regarding oyster restrictions, that your analyses of Class B municipal sewage sludge did not detect fecal coliform bacteria. You made a similar statement at one of the earlier TMDL meetings in Northumberland County, which I challenged at the time. Irrespective your few data, here are data (supplied by Mr. Chris Peot) from Blue Plains, the source of most of the sewage sludge spread in Northumberland County in 2004.

<u>Date</u>	<u>coliform/gram</u>	<u>Date</u>	<u>coliform/gram</u>
03/05	395	04/26	374
03/11	342	04/27	324
03/12	318	04/30	392
03/16	311	05/05	349
03/17	674	05/07	406
03/23	354	05/10	391
03/26	372	05/11	340
04/08	371	05/13	312
04/21	7,380	05/19	346
04/22	380	05/28	325
04/23	344	average	723

I suspect that Blue Plains is more responsibly self-regulated than most other wastewater facilities. As you know, State and Federal agencies do not test sewage sludge for bacterial content, but rely on data supplied by the generator. Dr. C. M. Sawyer of VDH informed me in a letter dated 02/28/06 that the concentration of Fecal Coliform Bacteria in alkaline (lime) stabilized Class B sewage sludge ranges from "1 to 3 logs" (10 to 1000) MPN per gram of dry solids. A data sheet he provided from

Chesterfield County presented 60 analyses between 2001 and 2003 and averaged 20,097.

Using 1000 CFU per dry gram as a fair average, at 20 ton (wet weight) truck contains about 4 tons of dry sludge (assuming 80% moisture content), or 4 million grams (ignoring the small difference between metric tons and long tons). At a typical spreading rate of 2 trucks per acre, about 8 billion ($2 * 4 \text{ million} * 1 \text{ thousand}$) Fecal Coliform bacteria are typically deposited on each acre of land. I submit that any qualified microbiologist will confirm that there is a virtual certainty that gulls and other vectors (raccoons, deer, dogs, wind, runoff, etc.) will contaminate waterways, especially if the sludge is spread immediately adjacent to restricted tidal waterways, as I know is happening in Lancaster County.

I formally request that you cease and desist from misinforming the public about the pathogen content of Class B municipal sewage sludge. I recall a TMDL meeting in Northumberland County where Mr. Bigelow appeared to be shocked when I told him that Class B, and not Class A sludge was being land-applied. You and he could, at the very least, have contacted the employees of DEQ responsible for the land-application of municipal sewage sludge generated within Virginia. According to a letter (01/25/05) from Mr. Jon van Soestbergen, DEQ permits cover about 10% of the sewage sludge land-applied within the State. I am sure individuals within DEQ can supply you with the bacterial content of that sludge, as the analyses are required by law.

The land-application of Class B sewage sludge, and all other forms of animal waste, constitutes an obvious source of pathogen contamination of tidal waterways that can be easily eliminated. It is crystal clear to me that the real reason this problem is being dismissed at both the Federal and State levels is the unstated position that "free fertilizer" is more important to farmers and to the economy than is the massive nitrate, phosphate and pathogen pollution that results from the land-application process.

Yours sincerely,

Dr. Lynton S. Land

cc: D. K. Paylor, DEQ; Del. Rob Wittman; Dr. C. M Sawyer, VDH; K. Eades, No. Co.; J. Larson, Lancaster Co.