

June 1, 2018

Councilman Sigaty and Councilman Fox,

On behalf of the Howard County Farm Bureau, we are asking that at this time, you withdraw CB-21, 2018 (ZRA183).

Maryland at a state level, is looking at how to manage each county's needs, for the proper use of Wood Waste, Compost and Food Waste. This bill CB-21 with amendments is not good for us. So, at this time we are willing to take a loss of a battle, for a war that has just begun. We had looked forward to getting this bill and the whole issue of Mulch and Compost behind us. Unfortunately, there are those that seem to be obsessed with not getting this issue taken care of, for reasons way beyond the realm of reality. We have heard facts as well as false statements and for some reason a small portion of the county seems to be afraid of the truth and has added lies and unproven statements to a story that is long from coming to an end. The lack of compromise and the shameful accusations are just a form of Bullying, that is sadly become the tools certain groups are using to manipulate others that cannot make up their own minds.

For those of us in agriculture, we all know that we do very little the way it was done a generation ago. Homeowners should never be allowed to dictate a farmer's ability to make a living on their own land. This issue has made it evident that we have many more battles to endure. Most of us know that if you

refuse to adapt to modern technology you are quickly left behind. Each generation of every Community needs to embrace technology and combine that with the old, to be able to survive in a world that is spinning faster every day. Every farmer gets on their knees every night and prays that they can make a living with what God has given us, we also pray that we are not the generation that loses the land, that those before us struggled to keep and make better. It's also hard enough to keep the next generation on the farms. What has been done to agriculture in this county has made the next generation of our families, want no parts of farming, and that is an unrepairable travesty.

No matter how small or how large an operation is, it must use all the resources available to it, to make the puzzle pieces align and complete a picture, that will then change in a lifetime or the time of a season or even as little as the next day. Change is inevitable and change for the better is the ultimate goal. So, to those so inclined to stop progress, please embrace life and stop trying to manipulate a world you know nothing about, a world that has got to change if we are going to keep everyone moving forward, in this progressive county, Howard County, our lifetime home, and the home of many more generations to come. We hope!

Sincerely, *Howie Feaga*

Howie Feaga, president of the Ho. Co. Farm Bureau

Sayers, Margery

From: David M Banwarth <dmbanwarth@verizon.net>
Sent: Wednesday, May 30, 2018 6:23 PM
To: CouncilMail
Subject: Opposition to CB21-2018
Attachments: DMB Letter to Council 05 30 2018 re CB21.pdf

Council Members,

Please find the attached correspondence in OPPOSITION to CB 21-2018. I urge Council to vote NO on CB 21, or to withdraw it, due to the documented health hazards it brings to residential communities on well water.

David M Banwarth

Dayton, MD

05/30/2018

County Council
Howard County Maryland

Re: CB 21-2018 poses an imminent threat of water pollution of potable drinking wells/aquifers by toxic metals due to leachates from industrial wood waste manufacturing (NWWR) and Type 2 waste composting facilities

Council Members,

I herein bring to your attention strong health and safety concerns regarding CB 21-2018, which proposes industrial scale (i.e. -trucked in materials) mulch manufacturing and composting facilities in the midst of residential communities. These facilities are proven to leach toxic levels of Manganese from host soils, polluting groundwater aquifers and rendering them permanently non-potable. I ask that you review the materials herein and take immediate actions to prohibit industrial wood mulch manufacturing facilities and Type 2 composting (other than on the farm, for the farm) in areas that are dependent on underground aquifers for well-water.

Research studies of mulch manufacturing sites show that "Natural wood waste recycling/composting operations ... creates an organic discharge that infiltrates the porous ground surface. The discharge water is high in organic content (carbohydrates, organic acids, lignin, humic material, carboxylic, hydroxides and amino acids). When the high organic discharge water infiltrates the ground, multiple geochemical reactions occur that mobilize the existing metals from the soil structure."¹ Canadian studies have shown that leachate from logs and wood waste has the potential to be acidic, nutrient poor, toxic to aquatic life and have very high oxygen demand.²

Western Howard County contains natural manganese concentrations in the soil and rocks. However, they are not naturally soluble in water. Leachates from mulch piles, being high in chemical and biological oxygen demand, create a low Ph condition which frees metal oxides, allowing them to become mobile in a soluble ionic form. In that condition, they can migrate to ground water aquifers in toxic concentrations.

A similar facility in Suffolk County, NY has already contaminated an underground aquifer such that testing of wells yielded extremely high levels of toxic metal concentrations. In fact, due to groundwater impacts, Suffolk County abandoned residential wells and connected numerous residents to municipal supply at public expense. Investigations identified a clear cause and effect of wood waste and organic processing and groundwater supply contamination. "This data in conjunction with the data from the current investigation suggests that compost/vegetative organic waste site operations can cause an elevation of manganese concentrations in groundwater."³

¹ ["Groundwater Metals Contamination from Wood Waste Recycling Facilities", August 2014](#)

² [Journal of Environmental Management 182 \(2016\) 421e428, "Characterization of wood mulch and leachate/runoff from three wood recycling facilities", Sarat Kannepalli, Peter F. Strom*, Uta Krogmann, Vandana Subroy, Daniel Gimenez, Robert Miskewitz ", p. 421](#)

³ ["Impacts to Groundwater Quality from Compost/Vegetative Organic Waste Management Facilities in Suffolk County"³, Suffolk County Department of Health Services, January 22, 2016,](#)

Scientific studies⁴ identify exposure to manganese (via drinking water) causes adverse health effects, such as neurological disorders similar to Parkinson’s disease. They also find correlations between increased manganese levels and the following medical afflictions:

- Neuro-developmental disabilities including autism, attention deficit, hyperactivity, dyslexia and other cognitive impairments,
- Epidemiological studies document manganese as a developmental neuro-toxicant,
- Maternal manganese levels are associated with low birth weight.

A similar study⁵ notes that “Wood waste leachates are commonly characterized by lignin-tannin (measured as tannic acid), oxygen demanding materials, color, and odor. In this study... iron and **manganese** were also shown to increase markedly relative to natural background concentrations.... In August 1972, the area affected by the contaminated ground water (in this study) covered 4 acres and extended nearly 1,000 feet downgradient from the disposal site. By late January 1973 the plume had migrated laterally to affect an area of about 15 acres... **At least eleven existing domestic water-supply wells have been rendered nonpotable by this pollution.**”

Study results of four (4) separate wood waste mulching and composting sites’ water contamination are summarized in the following Table.⁶ Note that one site in Howard County (Bassler Site) exhibits **13,000 µg/L of toxic Manganese levels due to previous wood waste operations (260 times the FDA limit for bottled water, and 13 times the 1-day Child Health Advisory limit for the Agency for Toxic Substances and Disease Registry).**

Manganese

Manganese (µg/L)	FDA Bottled Water Limit	EPA Regional Screening Level (May 2013)	Connecticut Drinking Water Action Level	ATSDR 1-Day Child Health Advisory	Max Conc. (µg/L)
New York	50	320		1,000	43,000
Bassler (MD)	50	320		1,000	13,000*
Oregon (City of Turner)	50	320		1,000	106,000
Connecticut	50	320	500	1,000	

*Manganese background average for Clarksville West- 20 µg/l

Sources of pollution rich in organic matter such as wood compost can increase the release of manganese and other metals from soil and bedrock into groundwater.

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⁴ [“Groundwater Metals Contamination from Wood Waste Recycling Facilities”, August 2014](#)

⁵ [“Ground-Water Pollution by Wood Waste Disposal”, H. R. Sweet, R. H. Fetrow, March 1975](#)

⁶ [“Groundwater Metals Contamination from Wood Waste Recycling Facilities”, August 2014](#)

Additionally, a published study in the Journal of Environmental Management states that **leachates from wood mulch piles "In general, were comparable to those of untreated domestic wastewater (raw sewage) ... with respect to BOD, COD, and TSS concentrations".**⁷

Summary

Based on the proven link between wood waste recycling sites and manganese/metals aquifer contamination, there is great concern to residents regarding health and environmental threats by such industrial operations to our well water. **This legislation represents such a clear and strong public health threat that I strongly urge the County Council withdraw or vote against CB 21-2018.**

Sincerely,

David M Banwarth
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Dayton, MD 21036
dmbanwarth@verizon.net

⁷ [Journal of Environmental Management 182 \(2016\) 421e428, "Characterization of wood mulch and leachate/runoff from three wood recycling facilities", Sarat Kannepalli, Peter F. Strom*, Uta Krogmann, Vandana Subroy, Daniel Gimenez, Robert Miskewitz ", p. 424](#)