

Health Hazards of Industrial Wood Waste and Composting

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Health Hazards

**Industrial mulch processing and composting
results in increased health risks**

- **Mulch infectious agents – fungi and bacteria**
- **Wood dust – allergic and mucosal effects**
- **Wood dust – cancer**
- **Composting – volatile compounds, organic dust, infectious agents**
- **Exposure and risk**

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Infectious agents example: acute fungal pneumonia

At presentation

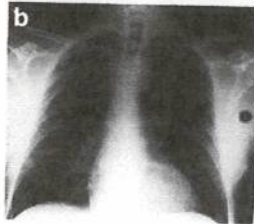


A 69 year old retired man with no significant medical history. Developed acute pneumonia after spreading tree bark mulch.

Hospitalized, developed kidney injury and failure. Remained dialysis dependent and housebound.

Died of sepsis 10 months later.

2 months later

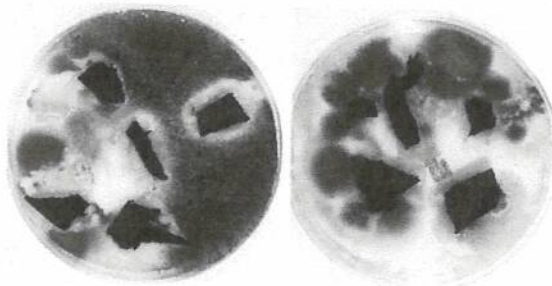


Inhalation of fungal spores from mulch was determined be the likely route of infection.

Medical MycologyCaseReports2(2013)125-127

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Infectious agents example: acute fungal pneumonia



Mulch culture showing growth of microorganisms
(*Aspergillus fumigatus*, *Rhizopus* spp., *Sporobolomyces* spp. and bacteria)

Medical MycologyCaseReports2(2013)125-127

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Studies of mulch related infections in medical literature

1: Ameratunga R, Woon ST, Vyas J, Roberts S. Fulminant mulch pneumonitis in undiagnosed chronic granulomatous disease: a medical emergency. Clin Pediatr (Phila). 2010 Dec;49(12):1143-6. doi: 10.1177/0009922810370057. Epub 2010 Aug 19.

2: Siddiqui S, Anderson VL, Hilligoss DM, Abinun M, Kuijpers TW, Masur H, Witebsky FG, Shea YR, Gallin JI, Malech HL, Holland SM. Fulminant mulch pneumonitis: an emergency presentation of chronic granulomatous disease. Clin Infect Dis. 2007 Sep 15;45(6):673-81. Epub 2007 Aug 8.

3: Veillette M, Cormier Y, Israeli-Assayag E, Meriaux A, Duchaine C. Hypersensitivity pneumonitis in a hardwood processing plant related to heavy mold exposure. J Occup Environ Hyg. 2008 Jun;3(6):301-7.

4: Nagai K, Sukoh N, Yamamoto H, Suzuki A, Inoue M, Watanabe N, Kuroda R, Yamaguchi E. [Pulmonary disease after massive inhalation of Aspergillus niger]. Nihon Kokyuki Gakkai Zasshi. 1998 Jun;36(6):551-5. Japanese.

5: Weber S, Kullman G, Patsenk E, Jones WG, Olenchock S, Sorenson W, Parker, Marcelo-Baciu R, Frazer D, Castranova V. Organic dust exposures from compost handling: case presentation and respiratory exposure assessment. Am J Ind Med. 1993 Oct;24(4):365-74.

6: Johnson CL, Bernstein IL, Gallagher JS, Bonventre PF, Brooks SM. Familial hypersensitivity pneumonitis induced by Bacillus subtilis. Am Rev Respir Dis. 1980 Aug;122(2):339-48. PubMed PMID: 6774642.

Dozens of examples of scientific articles from throughout the world related to infectious agents in mulch.

Particularly important and dangerous for immune compromised individuals.

Recent study found that of patients with fulminant mulch pneumonitis, half of those died of due to infection and underlying kidney disease.

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Health Effects of Wood Dust

From Centers for Disease Control and Prevention:

"Exposure to wood dust has long been associated with a variety of adverse health effects, including dermatitis, allergic respiratory effects, mucosal and nonallergic respiratory effects, and cancer. The toxicity data in animals are limited, particularly with regard to exposure to wood dust alone; there are, however, a large number of studies in humans."

1988 CDC OSHA PEL Documentation

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Health Effects of Wood Dust

From *Ann Agric Environ Med* 2010, 17, 29-44.

- **Abstract:** This paper reviews the literature on associations between dry wood dust exposure and non-malignant respiratory diseases ... The results support an association between dry wood dust exposure and asthma, asthma symptoms, coughing, bronchitis, and acute and chronic impairment of lung function. In addition, an association between wood dust exposure and rhino-conjunctivitis is seen across the studies."

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Dermatitis

- "Dermatitis. There are a large number of case reports, epidemiological studies, and other data on the health effects of wood dust exposure in humans. Dermatitis caused by exposure to wood dusts is common, and can be caused either by chemical irritation, sensitization (allergic reaction), or both of these together. As many as 300 species of trees have been implicated in wood-caused dermatitis."

1988 CDC OSHA PEL Documentation

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Asthma

- "Allergic respiratory effects. Allergic respiratory responses are mediated by the immune system, as is also the case with allergic dermatitis. Many authors have reported cases of allergic reactions in workers exposed to wood dust ... Asthma is the most common response to wood dust exposure"

1988 CDC OSHA PEL Documentation

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Other Lung Effects

- "Mucosal and nonallergic respiratory effects (changes in the structure and function of the nasal mucosa and respiratory tract that are caused by exposure to wood dust). These changes include nasal dryness, irritation, bleeding, and obstruction; coughing, wheezing, and sneezing; sinusitis; and prolonged colds."

1988 CDC OSHA PEL Documentation

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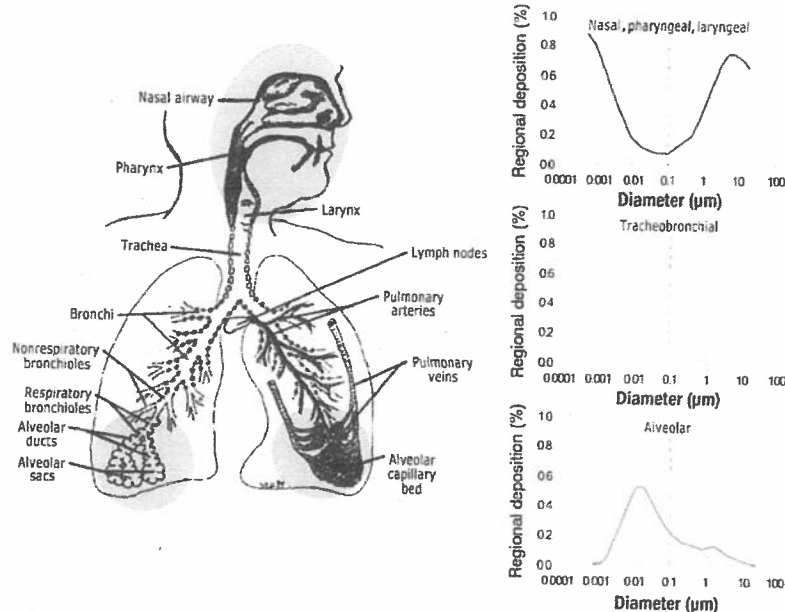
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Cancer

- "The association between occupational exposure to wood dust and various forms of cancer has been explored in many studies and in many countries." (CDC)
- "There is *sufficient evidence* in humans for the carcinogenicity of wood dust. Wood dust causes cancer of the nasal cavity and paranasal sinuses and of the nasopharynx. Wood dust is *carcinogenic to humans (Group 1)*." (WHO, IARC)

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Fig. 4.1 Deposition of inhaled particles in the human respiratory tract during nasal breathing



From _____ Drawing courtesy of Harkema. Reproduced with permission from Environmental Health Perspectives

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Nasal Cancer

- "Summary of evidence for nasal and sinus cavity cancers. The literature clearly demonstrates an association between wood dust exposure and nasal cancer. "
- English studies first identified this link by showing a 10- to 100 times-greater incidence of nasal adenocarcinoma among those exposed to wood dust than in the general population.
- "In the United States, three studies have reported a fourfold risk of nasal cancer or adenocarcinoma ... and wood dust exposure."

1988 CDC OSHA PEL Documentation

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Lung Cancer

- "Pulmonary cancer. A number of studies investigating the association between wood dust exposure and the development of lung cancer have been conducted."
- Milham (1974/Ex. 1-943) found a significant excess of malignant tumors of the bronchus and lung in workers who exposed to wood dust.

1988 CDC OSHA PEL Documentation

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Hodgkin Lymphoma

- "Hodgkin's disease. Milham and Hesser concluded, on the basis of a case-cohort study of 1,549 white males dying of this disease ... that there was an association between Hodgkin's disease and exposure to wood dust."
- Other studies concluded that men working in the wood industries in the eastern United States as well as Washington state were at special risk for Hodgkin's disease.

1988 CDC OSHA PEL Documentation

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Other Cancers

- "Other cancers. NIOSH (1987a/Ex. 1-1005) concluded that the data on the relationship between occupational exposure to wood dust and the development of cancers other than nasal, Hodgkin's disease, or lung cancers are insufficient and inconclusive."
- Emerging evidence that risks of oral cancer increase with exposure to wood dust.

1988 CDC OSHA PEL Documentation

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Composting

A commonly used method of waste management involving aerobic, biological process of degradation of biodegradable organic matter

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Composting Health Effects – VOC's

- Composting generates volatile organic compounds (VOCs)
- VOCs can comprise hundreds of compounds including benzene, toluene, m,p-xylene, o-xylene, styrene, formaldehyde, chloroform, ethylbenzene among others.
- High levels of VOC's observed in many studies at variety of composting sites

Environ. Sci. Technol. 1995, 29, 896-902
J.L. Domingo, M. Nadal / Environment International 35 (2009) 382-389

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Composting Health Effects – VOC's

VOC's comprise substances that are

- **Carcinogenic:** examples include benzene, a risk factor for leukemia, and formaldehyde, associated with nasal carcinoma
- **Toxic:** includes many VOC's that may lead to renal, hematological, neurological and hepatic damage as well as mucosal irritation.

J.L. Domingo, M. Nadal / Environment International 35 (2009) 382-389

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Composting Health Effects – Biologic Agents

Composting sites due to their contents comprise infectious, allergenic, toxic, and carcinogenic agents including

- Fungi such as *Aspergillus fumigatus* (*A. fumigatus*), gram negative bacteria, and parasitic protozoa, all involved in a variety of infectious conditions
- Endotoxins produced by bacteria and fungi, including aflatoxins which are known to be associated with liver cancer

J.L. Domingo, M. Nadal / Environment International 35 (2009) 382–389

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Composting Health Effects – Biologic Agents

Composting sites due to their contents comprise infectious, allergenic, toxic, and carcinogenic agents including

- Organic dusts that can lead to pulmonary inflammation (acute inflammation, hypersensitive pneumonitis), occupational asthma, chronic bronchitis, gastrointestinal disturbances, fevers, and irritation of eyes, ear and skin.

J.L. Domingo, M. Nadal / Environment International 35 (2009) 382–389

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Composting Health Effects – Animal Mortality and Leachate

- Composting process can lead to increases in solubility of hazardous metals and organic substances in contaminated water (leachate)
- Burial of animal carcasses can lead to significant contamination of soil and groundwater with antimicrobials, steroid hormones, other veterinary pharmaceuticals

Q. Yuan et al. / Science of the Total Environment 456–457 (2013) 246–253

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Composting Health Effects – Food Wastes and Pathogens

- “There have been numerous studies on pathogen content in the composting process.”
- “In San Jose, California literally hundreds of people were affected by a nearby composting yard. This case illustrates the importance of carefully siting compost facilities with adequate setbacks from residential areas. One study, presented at a BioCycle conference recommended two miles isolation distance from residential and high travel areas.”

Cronin, C. Pathogens and Public Health Concerns with Composting
Vermont Department of Environmental Conservation

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Local Example – MDE and Recycled Green Industries

- "A Woodbine company that had been processing food scraps into composted materials with commercial applications ... has ceased those operations after hearing concerns about pollution from the Maryland Department of the Environment... Food scraps present different environmental concerns than yard waste, the spokesman said. Namely, food contains "nutrients and potential pathogens" not found in yard waste, and are harmful to the environment when washed into surface and ground water, said Jay Apperson, the spokesman, in an email... The letter said water samples taken by the department on or near the company's property "confirm that the operation is generating polluted leachate and storm water and is discharging pollutants without a permit in violation of state law."

Rector, K. Baltimore Sun, Feb 6, 2012

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Real World Example of Composting Health Effects on Nearby Residents

- Health effects to a residential area from environmental outdoor pollution hundreds of meters from a composting site (Occup Environ Med 2003;60:336–342)

Reported health complaints§	SSE	Biogerosol pollution in residential air‡ up to >10 ⁶ CFU m ⁻³ air		Duration of present residency >5 years	
		OR**	95% CI††	OR	95% CI
Respiratory tract					
Frequency of colds >5-/year	209	1.94	0.65 to 6.78	4.72	1.19 to 31.83
Bronchitis	210	3.02	1.35 to 7.06	2.91	1.29 to 7.03
Waking up due to coughing	202	2.70	1.23 to 6.10	2.51	1.19 to 5.53
Wheezing	207	1.96	0.84 to 4.82	2.95	1.22 to 7.99
Shortness of breath at rest	203	3.99	1.31 to 15.19	1.50	0.56 to 4.49
Coughing on rising or during the day‡‡	210	2.67	1.17 to 6.10	1.51	0.69 to 3.29
Shortness of breath after exertion	205	4.23	1.74 to 11.34	2.03	0.90 to 4.91
Eyes and general health					
Itching eyes >10-/year	206	1.35	0.61 to 3.05	2.85	1.31 to 6.50
Smarting eyes >10-/year	205	2.44	1.02 to 6.22	2.42	1.06 to 5.86
Nausea or vomiting >5-/year	204	2.65	0.87 to 9.97	4.10	1.28 to 18.44
Excessive tiredness >5-/year	200	2.80	1.22 to 6.72	1.83	0.84 to 4.11
Shivering	210	4.63	1.44 to 20.85	3.67	1.32 to 12.20
Joint trouble >10-/year	207	1.27	0.54 to 3.07	1.52	0.65 to 3.71
Muscular complaints >10-/year	201	1.17	0.47 to 2.99	1.39	0.55 to 3.86

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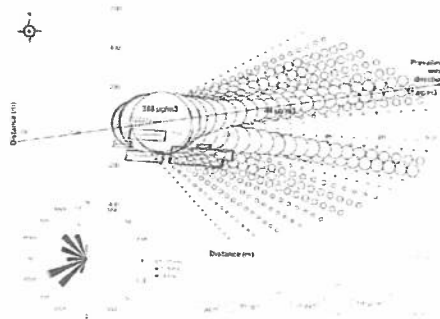
Significant Medical Literature of Effects of Emissions from Waste Facilities

- Chalvatzaki E, Aleksandropoulou V, Glytsos T, Lazaridis M. The effect of dust emissions from open storage piles to particle ambient concentration and human exposure. *Waste Manag.* 2012 Dec;32(12):2456-68
- Nadal M, Inza I, Schuhmacher M, Figueras MJ, Domingo JL. Health risks of the occupational exposure to microbiological and chemical pollutants in a municipal waste organic fraction treatment plant. *Int J Hyg Environ Health.* 2009 Nov;212(6):661-9.
- Domingo JL, Nadal M. Domestic waste composting facilities: a review of human health risks. *Environ Int.* 2009 Feb;35(2):382-9.
- Herr CE, Nieden Az Az, Stilianakis NI, Eikmann TF. Health effects associated with exposure to residential organic dust. *Am J Ind Med.* 2004 Oct;46(4):381-5.
- Herr CE, zur Nieden A, Stilianakis NI, Gieler U, Eikmann TF. Health effects associated with indoor storage of organic waste. *Int Arch Occup Environ Health.*
- Herr CE, Zur Nieden A, Jankofsky M, Stilianakis NI, Boedeker RH, Eikmann TF. Effects of bioaerosol polluted outdoor air on airways of residents: a cross sectional study. *Occup Environ Med.* 2003 May;60(5):336-42.

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Dust Emissions and Distance

- Dust emissions from open piles of mulch / organic waste can be measured at distances >500 m (>1500 feet) (Waste Management 32 (2012) 2456–2468)



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Microorganisms and VOC's - Dispersion Distance

- High levels of molds, fungi, thermophilic fungi, bacteria and other microorganisms (concentrations of $>10^4$ colony forming units) could be measured >300 m (>1000 feet) in residential air neighboring outdoor organic waste (Am. J. Ind. Med. 46:381–385, 2004)
- Volatile organic compounds can be detected at distances of up to 800 meters (Environment International 35 (2009) 382–389) and others

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Dispersion of infectious agents – worst case scenario

- Infectious agents have been shown to be dispersed at larger distances. Prominent example includes outbreak of Legionnaires disease in a radius of 6km through release from an elevated water tower
- Dispersion led to 86 infected cases of which 18 (21%) were fatal

J Infect Dis. 2006 Jan 1;193(1):102-11

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Summary

- **Mulch and composting sites can pose risks for human health due to increased exposure of infectious agents, toxic substances, and VOC's. These include**
 - infections due to fungal spores and bacteria
 - **Increased risk of dermatitis, allergic respiratory effects, and mucosal and nonallergic respiratory effects**
 - Increased risk of cancer, including nasal, lung, and Hodgkin lymphoma
- Exposure risks can occur at significant distances from waste processing area
- Numerous examples of exposure risks have been document in affected populations world-wide

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ORIGINAL ARTICLE

Effects of bioaerosol polluted outdoor air on airways of residents: a cross sectional study

C E W Herr, A zur Nieden, M Jankofsky, N I Stilianakis, R-H Boedeker, T F Eikmann

Occup Environ Med 2003;**60**:336-342

Background: Bioaerosol pollution of workplace and home environments mainly affects airways and mucous membranes. The effect of environmental outdoor residential bioaerosol pollution, for example, livestock holdings, farming, and waste disposal plants, is unclear.

Aims: To investigate the perceived health of residents living in areas with measurable outdoor bioaerosol pollution (for example, spores of *Aspergillus fumigatus* and actinomycetes), and effects of accompanying odours.

Methods: In a cross sectional study, double blinded to ongoing microbial measurements, doctors collected 356 questionnaires from residents near a large scale composting site, and from unexposed controls in 1997. Self reported prevalence of health complaints during the past year, doctors' diagnoses, as well as residential odour annoyance were assessed. Microbiological pollution was measured simultaneously in residential outdoor air.

Results: Concentrations of $>10^5$ colony forming units of thermophilic actinomycetes, moulds, and total bacteria/m³ air were measured 200 m from the site, dropping to near background concentrations within 300 m. Positive adjusted associations were observed for residency within 150-200 m from the site versus unexposed controls for self reported health complaints: "waking up due to coughing", odds ratio (OR) 6.59 (95% confidence interval (CI) 2.57 to 17.73); "coughing on rising or during the day", OR 3.18 (95% CI 1.24 to 8.36); "bronchitis", OR 3.59 (95% CI 1.40 to 9.4); and "excessive tiredness", OR 4.27 (95% CI 1.56 to 12.15). Reports of irritative airway complaints were associated with residency in the highest bioaerosol exposure, 150-200 m (versus residency >400 -500 m) from the site, and period of residency more than five years, but not residential odour annoyance. Lifetime prevalence of self reported diseases did not differ with exposure.

Conclusions: Bioaerosol pollution of residential outdoor air can occur in concentrations found in occupational environments. For the first time residents exposed to bioaerosol pollution were shown to report irritative respiratory complaints similar to mucous membrane irritation independently of perceived odours.

See end of article for authors' affiliations

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Accepted 3 September 2002

Bioaerosols occur ubiquitously as inhalable mixtures of air and microorganisms, parts of microorganisms, or organic substances of microbial and plant origin.¹ In the outdoor air, exposure bioaerosols (for example, containing *Aspergillus fumigatus*) can occur from natural or anthropogenic sources.²⁻⁴

When evaluating health effects of bioaerosols (organic dusts), their composition, concentration, and measurement methods applied must be considered.⁵ Individual susceptibility, for example, atopy, allergic sensitisation, or immunodeficiency, also plays an important role in the risk assessment. Health based threshold levels for microorganisms for outdoor, indoor, or workplace air have not been established.⁴ It is, however, known that infectious, allergic, or toxic disturbances triggered by bioaerosols originate mostly in moulds, thermophilic actinomycetes, Gram negative bacteria, and viruses.^{3 6-10}

Besides livestock breeding and farming, the increasing number of large scale composting facilities for sewage sludge, and yard and solid waste being established within the scope of modern disposal concepts can release bioaerosols. Health relevant moulds (*Aspergillus fumigatus*) and actinomycetes accumulated in compost material become airborne as vegetative cells or spores through movement of the material.¹⁴ Workers on composting sites have higher rates of airway related mucous membrane complaints and diseases. In these workers, specific antibodies against actinomycetes, as well as airway inflammation (or mucous membrane irritation (MMI)) have been reported.^{2 11 12} Severe cases of general disease, for example, hypersensitivity pneumonia or severe toxic reactions

(toxic pneumonitis or organic dust toxic syndrome (ODTS)) were reported in workers and one private person following direct contact with compost.^{3 13-15}

Worldwide several thousand of these often malodorous sites are operating. However, their health effects on nearby residents have not been investigated sufficiently. A study in residents living within 500 m of a site showed no clear evidence of health changes.¹⁶ In a case report, an asthmatic, living 80 m from a composting site (52% of the year in the wind direction), was found to have an allergic bronchopulmonary aspergillosis (ABPA).¹⁷

There is an urgent need to evaluate pollution due to bioaerosols (organic dusts), which can also occur in indoor air,¹⁸⁻²² as far as the general public health is concerned. This is particularly important as an increasing fraction of the general population in industrialised countries must be classified as a risk group (for example, atopics) in the context of bioaerosol pollution.²³

This cross sectional study aimed to relate self reported health to measurable bioaerosol pollution in the residential outdoor air. Prevalence of perceived complaints and self

Abbreviations: ABPA, allergic bronchopulmonary aspergillosis; CFU, colony forming units; CI, confidence interval; ISAAC, International Study on Allergy and Asthma in Childhood; MMI, mucous membrane irritation; N, north; ND, not detected; NW, northwest; ODTS, organic dust toxic syndrome; OR, odds ratio; WHO, World Health Organisation; SS, sample size; SE, southeast; WNW, west-northwest

reported doctors' diagnoses of residents living very close (150–200 m) to a composting site were compared to those in the same neighbourhood living further away (>400–500 m), and to a corresponding unexposed control group without a residential source of bioaerosols. Measurements of viable airborne microorganisms in residential air were performed during the ongoing epidemiological study and were known neither to interviewees nor to the study subjects at that time. Reports of annoying residential odours were also assessed, as they are known to be of relevance to reported health.^{24–26}

METHODS

Assessment of exposure to cultivable microorganisms in the outdoor air of the residential area

The aim of the measurements was to assess location specific "worst case" conditions with regard to released bioaerosols into the neighbourhood. This concerned periods of intense microorganism releasing work activity, previously defined meteorological conditions at the time of measurement, as well as topographical aspects. Because of the ubiquity of the microorganisms under research, especially the thermophilic organisms, comparative quantitative measurements of background concentrations were taken upwind of the site.

The concentrations of three fractions of culturable microorganisms were determined in three repeated measurements. These were collected with filter based samplers (MD 8 Sartorius, Goettingen, Germany, flow rate $8 \text{ m}^3 \text{ h}^{-1}$, collection time 10 min) 1.5 m above ground level, with subsequent indirect plating method after filtration and precipitation on gelatine filters.^{27, 28;}

- Total bacteria (R2A agar (oxid), 25°C)
- Moulds (dichlorane-glycerine-(DG18)-(oxid), 25°C)
- Thermophilic and thermotolerant actinomycetes (glycerine-arginine-agar, 50°C).²⁹

As results of single microbial measurements are known to vary considerably, results of the three consecutive measure-

ments are given as maximum and minimum concentrations in table 2 and not mean values.

Epidemiological investigation

Study population

A team of doctors, process engineers, microbiologists, and meteorologists selected a composting site which had been in operation for five years and had led to distress in the neighbouring residents due to odour annoyance and fear of allergies and infection. Considering topographical and meteorological (for example, wind direction) as well as technical aspects (site not completely closed off, processing of yard trimmings and organic waste, a turnover of approximately 12 500 Mg per year), discharge of bioaerosols from the site into the neighbouring residential area was presumed prior to the study. Other sources of bioaerosol exposure (sewage plants, etc) did not exist in the proximity of the residential area. Together with the local health authority, an unexposed control area was selected in the same governmental district. Criteria for the selection were: similarity of population pattern, residential area (size of households, road traffic, petrol stations, and industrial sites) and the lack of sources of microorganisms in the residential outdoor air.

The residential area next to the composting plant was located at a distance from 150 to 500 m downwind. All persons living there ($n = 310$) and 411 unexposed inhabitants in the control area were invited to participate in the study. Addresses were collected from the municipal registration of address office.

Questionnaires concerning perceived health and odour annoyance

An environmental health questionnaire was used for the assessment of self reported health: complaints and symptoms as well as lifetime prevalence of doctors' diagnoses. The questionnaire was developed with items validated and applied in several national and international studies, for example,

Table 1 Characteristics of 356 participants of the cross sectional study: unexposed controls and residents of a neighbourhood with bioaerosol pollution in outdoor air classified according to the distance between home and emitting composting site

	Study population		Unexposed controls		Residents of a neighbourhood with bioaerosol pollution of outdoor air							
	n=356	n=142	n=142	n=142	Total	Classified						
Distance from the emitting site	–	–	–	–	150–500 m	150–200 m	>200–400 m	>400–500 m				
Bioaerosol pollution in residential air	–	–	Not measured	–	Up to $>10^5$ CFU m^{-3}	Up to $>10^5$ CFU m^{-3}	Up to $<10^5$ CFU m^{-3}	Near background				
Participants	n=356	n=142	n=142	n=142	n=214	n=82	n=76	n=56				
	SS†	Yes [%]	SS	Yes [%]	SS	Yes [%]	SS	Yes [%]	SS	Yes [%]	SS	Yes [%]
Female	356	56.7	142	52.8	214	59.3	82	59.8	76	60.5	56	57.1
Age >50 years	356	43.0	142	36.6	214	47.2	82	46.3	76	50.0	56	44.6
Duration of present residency >5 years	350	71.7	137	70.8	213	72.3	82	73.2	75	76.0	56	66.1
Odour annoyance in the residential area	344	59.3	132	25.8	212	80.2	82	95.1	74	75.7	56	64.3
Type of odour annoyance, disgusting	199	7.5	37	0.0	162	9.3	74	5.4	52	17.3	36	5.6
Separate collection of organic household waste	348	55.5	136	75.0	212	42.9	82	32.9	75	45.3	55	54.5
Composting in own garden	350	67.4	137	65.7	213	68.5	82	76.8	75	61.3	56	66.1
Occupation at a composting site	337	0.6	136	0.0	201	1.0	76	1.3	71	1.4	54	0.0
Smoking status (smoker and non-smoker <5 years)	324	26.5	132	25.0	192	27.6	73	17.8	69	39.1	50	26.0
Environmental tobacco smoke (at home/in the workplace)	283	39.6	111	39.6	172	39.5	65	41.5	63	38.1	44	38.6
Use of inhalers at home	343	9.9	140	7.1	203	11.8	78	10.3	73	6.8	52	21.2
Bedroom equipment‡	355	97.5	142	99.3	213	96.2	81	90.1	76	100	56	100
Exposure in the workplace§	349	22.3	136	28.7	213	18.3	82	23.2	75	16.0	56	14.3
Home <50 m from busy street	356	30.6	142	17.6	214	39.3	82	39.0	76	35.5	56	44.6

*CFU, colony forming units.

†SS, sample size.

‡Bedroom furnishings include one of the following: carpet, furs, eiderdown, horsehair or innerspring mattress, furniture made of chipboard.

§Vapours, gases, dusts, heat, cold, dampness.

Table 2 Concentrations of culturable microorganisms [minimum/maximum]* in residential air neighbouring a bioaerosol releasing composting site

Sample points (by distance and direction to composting site†)	Total bacteria [CFU‡ m ⁻³ air]		Moulds [CFU m ⁻³ air]		Thermophilic actinomycetes [CFU m ⁻³ air]	
	Min	Max	Min	Max	Min	Max
Upwind						
500 m SE§	8.4×10 ²	1.8×10 ³	1.9×10 ³	3.6×10 ³	[ND]¶	[ND]
Downwind						
200 m NW**	2.2×10 ⁴	5.1×10 ⁵	7.7×10 ³	1.3×10 ⁵	2.3×10 ⁴	5.5×10 ⁵
250 m WNW††	3.9×10 ⁴	1.7×10 ⁵	1.3×10 ⁴	4.6×10 ⁴	1.9×10 ⁴	1.1×10 ⁵
300 m N‡‡	4.4×10 ³	8.3×10 ⁴	4.3×10 ³	1.7×10 ⁴	2.8×10 ³	6.0×10 ⁴
320 m NW	6.8×10 ³	5.9×10 ⁴	3.9×10 ³	1.9×10 ⁴	1.3×10 ³	5.0×10 ⁴
550 m N	8.3×10 ²	4.3×10 ³	2.3×10 ³	4.1×10 ³	<5	9.9×10 ²
Sampling conditions						
Samplers	Filter based MD 8 Sartorius, (Goettingen, Germany), flow rate 8 m ³ h ⁻¹					
Collection time	10 min at 1.5 m above ground level with subsequent indirect plating method after filtration and precipitation on gelatine filters					
Detection limit	40 CFU					
Date and time	07.08.1997; 00:00–02:15§§					

*Minimum (Min) and maximum (Max) values of three repeated measurements. †"Kompostwerk Langes Feld", Kassel, Germany. ‡CFU, colony forming units. §SE, southeast. ¶ND, not detected. **NW, northwest. ††WNW, west-northwest. ‡‡N, north. §§Although there was a cold air flow from the composting site towards the studied neighbouring residential area "worst case" conditions.

ISAAC.²³ It was designed in particular to record health impairments and diseases of the respiratory tract from air pollution.

Prevalence of respiratory (12 items), eye related (two items), and general (eight items) health complaints, as well as current intake of medicine during the past 12 months were recorded (table 1). Subjects were also asked to state lifetime prevalence of diseases found by their own doctors in 18 categories. Interviewing doctors checked allergic conditions and current medicine intake by inspecting documents stating allergies and medicine supply during the study related house call.

Lifestyle factors and individual exposure to microorganisms from household sources (contact with compost, organic waste collection in the home,³⁰ inhalers, soft furnishings) were determined (see table 1). Further questions concerned the occurrence and quality of annoying odours in the residential area.

Epidemiological survey

The survey was carried out after consultation with the state data protection officer. It took place on all seven days of one week in July 1997, not during school holidays. A press conference, information by mail, and public event had previously taken place. The selected sample was mailed the questionnaire accompanied by additional information stating, for example, that their participation was voluntary. They were then phoned up to three times in order to arrange appointments for the doctor supported medical history interviews. These interviews took place in their homes and lasted for about an hour per person.

Statistical analysis

Using the LOGISTIC procedure of the SAS/STAT software, version 8.0, a logistic regression modelling approach was employed to analyse the health data of the 356 respondents studied. The model associated odds ratios (OR) and the corresponding 95% confidence intervals (CI) were determined. A *p* value of 0.05 or less was judged relevant. First a core model in which residents living at different distances (150–200 m, >200–400 m, >400–500 m) from the site were compared to unexposed controls living in the residential area without an adjoining compost site. The model included age, odour annoyance, and period of residence in the current home >5 years as fixed covariables. Additional confounders were gender, composting in own garden, collection of organic waste in the home, distance of home from a busy street <50 m, smoking, and exposure to passive smoke.

In a second stage the model was calculated for those 214 residents living near the composting site only. Those living in the two distance groups nearest to the site (150–200 m, >200–400 m) were compared to those living at >400–500 m. Fixed covariables were age, odour annoyance, and period of residence in the current home >5 years.

RESULTS

Exposure to culturable microorganisms in the outdoor air of the residential area

In the residential air of the residential area 200 m from the plant, concentrations of up to >10⁵ CFU m⁻³ air were recorded for total bacteria, moulds, and thermophilic actinomycetes. Even 320 m from the site differences in concentrations of total bacteria and moulds which were 100 times background levels (10³–10⁴ CFU m⁻³ air) were detected. Furthermore, the site characteristic thermophilic actinomycetes which were not found in upwind—background measurements—were still detectable 550 m downwind from the site at a concentration of <10³ CFU m⁻³ air.²⁷

These high concentrations of culturable microorganisms close to the plant came down quickly to near background concentrations within 550 m from the plant (table 2). Based on this observation, the exposed population was divided into three groups, dependent on the linear distance of the respective home from the site (150–200 m, >200–400 m, >400–500 m).

Epidemiological investigation

Study population

A total of 356 people took part in the study (see table 1). The response rate in the residential area with bioaerosol pollution was 69%. Selection bias due to low participation rate (35%) in the unexposed group would be characterised by stronger weighing of health concerned subjects perceiving health impairment.

More females and subjects >50 years took part in the exposed group. As stated above an adjustment was made for both parameters in the core model.

In the neighbourhood of the site, residential odour annoyance was reported by 80%, increasing to 95% in residents living 150–200 m from the site. When asked to characterise this odour annoyance, 10% described it as "disgusting". None of the unexposed controls reporting odours from other possible environmental sources stated this kind of odour annoyance. This underlines the specific odour annoyance of the exposed group.

Table 3 Prevalence of reported health complaints in residents in the neighbourhood of a composting site stratified according to the distance between home and composting site respectively, increasing concentration of bioaerosol exposure in residential air and unexposed controls

	Study population	Unexposed controls	Residents in the neighbourhood of a composting site with bioaerosol pollution of outdoor air								
			Total		Classified		Classified		Classified		
Distance of home from composting site	-	-	150–500 m		150–200 m		>200–400 m		>400–500 m		
Bioaerosol pollution in residential air	-	Not measured	Up to >10 ⁵ CFU m ⁻³		Up to >10 ³ CFU m ⁻³		Up to <10 ² CFU m ⁻³		Near		
Participants	n=356	n=142	n=214		n=82		n=76		n=56		
Reported health complaints†	SS‡	SS	Yes [%]	SS	Yes [%]	SS	Yes [%]	SS	Yes [%]	SS	Yes [%]
Respiratory tract											
Frequency of colds >5x/year	352	142	6.3	210	11.4	81	21.0	73	2.7	56	8.9
Hay fever	355	142	16.2	213	19.7	81	18.5	76	19.7	56	21.4
Sinusitis	354	141	14.2	213	17.4	82	26.8	75	10.7	56	12.5
Bronchitis	355	142	26.8	213	33.3	81	54.3	76	17.1	56	25.0
Pneumonia	348	139	1.4	209	3.3	80	6.3	75	1.3	54	1.9
Shortness of breath at rest	343	137	5.1	206	18.4	82	24.4	68	20.6	56	7.1
Shortness of breath following exertion	344	136	16.2	208	31.3	82	43.9	70	30.0	56	14.3
Waking up with chest tightness	338	135	11.9	203	22.2	79	26.6	69	26.1	55	10.9
Waking up due to shortness of breath	341	136	3.7	205	9.3	82	7.3	67	13.4	56	7.1
Waking up due to coughing	343	138	25.4	205	41.5	82	57.3	67	31.3	56	30.4
Wheezing	349	139	15.8	210	28.1	79	38.0	76	23.7	55	20.0
Cough on rising/during the day§	355	142	19.0	213	35.2	82	47.6	75	28.0	56	26.8
Eyes and general health											
Itching eyes >10x/year	340	131	20.6	209	40.2	80	47.5	74	40.5	55	29.1
Smarting eyes >10x/year	344	136	15.4	208	35.6	80	43.8	74	40.5	54	16.7
Loss of appetite	347	140	5.0	207	10.1	76	10.5	76	10.5	55	9.1
Nausea or vomiting >5x/year	343	136	5.9	207	16.9	81	23.5	73	16.4	53	7.5
Diarrhoea >5x/year	349	138	3.6	211	9.5	81	21.0	76	2.6	54	1.9
Excessive tiredness >5x/year	341	138	13.0	203	40.4	76	53.9	76	36.8	51	25.5
Shivering	353	140	13.6	213	19.7	82	29.3	75	20.0	56	5.4
Fever >5x/year	356	142	1.4	214	2.3	82	2.4	76	3.9	56	0.0
Joint trouble >10x/year	346	136	19.1	210	37.1	80	41.3	75	36.0	55	32.7
Muscular complaints >10x/year	339	135	11.1	204	25.0	77	26.0	72	26.4	55	21.8
Current intake of medicine/vitamins	355	142	41.5	213	56.8	82	54.9	76	59.2	55	56.4

*CFU, colony forming units.

†Frequency or occurrence in the past 12 months. If not otherwise stated, rates are for a single occurrence.

‡SS, sample size.

§Criteria of the World Health Organisation for chronic bronchitis.

Regarding exposure to airborne microorganisms from domestic sources, residents near the composting site reported less separate collection of organic household waste. This rate was lowest in those living closest to the site. From this observation, as well as from reports on composting in own gardens, there was no indication of a higher exposure of the residents in the neighbourhood of the site to bioaerosols from domestic waste sources.

Smoking status and exposure to environmental tobacco smoke, occupational exposure, personal use of inhalers, as well as bedroom equipment, also gave no indication of a higher burden on the airways of the exposed group. The same applied to the statements on mould or dampness in homes (9% in unexposed controls, 3% in exposed).

Differences were observed for the proximity of the home to a busy street (<50 m), which indicated a higher exposure to car traffic related pollutants close to the site. For this reason an adjustment was made in the logistic regression.

Health effects in a residential area with bioaerosol pollution

Residents living in the neighbourhood of the composting site reported health complaints, medicine intake, and 11 of the 18 self reported illnesses ever diagnosed by a doctor more frequently than unexposed controls without a neighbouring composting site. Stratification showed the highest prevalence of complaints in those living closest to the site who were respectively exposed to the highest concentration of bioaerosols measured. Nevertheless, the exposed group living furthest

away from the site at a distance of >400–500 m still reported higher rates of health complaints (but not self perceived diseases) compared to unexposed controls (table 3).

In the core model the unexposed residents without an adjacent composting site were compared with exposed residents in the neighbourhood of the site. For this the exposed group was stratified according to distance between home and composting site, and nine confounders were taken into consideration. Adjusted associations were found between close residency to the site (150–200 m)—highest concentration of airborne microorganisms (up to >10⁵ CFU m⁻³ residential air)—and three of 12 airway related complaints, as well as excessive tiredness and intake of medicine (table 4). For those living further away from the site (>200–400 m), these associations were not observed.

In this core model, duration of present residency (>5 years), respectively duration of exposure was positively associated with “waking up due to coughing” (OR 2.29; 95% CI 1.13 to 4.79) and “bronchitis” (OR 2.37; 95% CI 1.65 to 5.06) during the past 12 months.

In a second step only those living in the neighbourhood of the composting site were studied. This allowed the effects of the bioaerosols (measured concentrations and duration of exposure) and the possible bias due to the specific, in part disgusting, residential odour annoyance near the composting site to be analysed more precisely. This comparison of the most highly exposed (up to >10⁵ CFU m⁻³ residential air) with the least exposed (near background concentrations of airborne

Table 4 Health effects* of bioaerosol pollution in residential outdoor air highly exposed ($>10^5$ CFU \uparrow m^{-3} air) in the neighbourhood of a composting site compared to unexposed controls without a neighbouring composting site

Reported health complaints‡	Residents with bioaerosol pollution of up to $>10^5$ CFU m^{-3} residential air living 150–200 m from the composting site		
	SS§	OR¶	95%CI**
Bronchitis	262	3.59	1.40 to 9.47
Waking up due to coughing	255	6.59	2.57 to 17.73
Coughing on rising or during the day††	263	3.18	1.24 to 8.36
Excessive tiredness	251	4.27	1.56 to 12.15
Current medication intake	263	2.64	1.08 to 6.60

*Only the significant positive associations from table 3 are listed.

†CFU, colony forming units.

‡Frequency of occurrence in the past 12 months; if not otherwise stated, rates are for a single occurrence.

§SS, sample size.

¶OR, adjusted odds ratio comparing the group nearest to the composting site (150–220 m) with the control group in a residential area without a neighbouring composting site adjusted for residential odour annoyance, duration present residency >5 years, composting in own garden, separate collection of organic household waste, distance of home to busy road <50 m, age, gender, smoking, and passive smoke exposure.

**CI, confidence interval.

††Criteria of the World Health Organisation for chronic bronchitis.

Table 5 Health effects* of highest ($>10^5$ CFU \uparrow m^{-3} air) versus near background concentrations of outdoor bioaerosol, pollution, duration of present residency, and odour annoyance in a residential area with a neighbouring composting site

Reported health complaints§	SS¶	Bioaerosol pollution in residential air \uparrow up to $>10^5$ CFU m^{-3} air			Duration of present residency >5 years		Odour annoyance in the residential area	
		OR**	95% CI††	OR	95% CI	OR	95% CI	
Respiratory tract								
Frequency of colds >5 ×/year	209	1.94	0.65 to 6.78	4.72	1.19 to 31.83	3.09	0.50 to 60.14	
Bronchitis	210	3.02	1.35 to 7.06	2.91	1.29 to 7.03	1.86	0.71 to 5.54	
Waking up due to coughing	202	2.70	1.23 to 6.10	2.51	1.19 to 5.53	1.95	0.81 to 5.08	
Wheezing	207	1.96	0.84 to 4.82	2.95	1.22 to 7.99	1.97	0.72 to 6.35	
Shortness of breath at rest	203	3.99	1.31 to 15.19	1.50	0.56 to 4.49	1.97	0.59 to 9.02	
Coughing on rising or during the day††	210	2.67	1.17 to 6.10	1.51	0.69 to 3.29	1.51	0.61 to 3.75	
Shortness of breath after exertion	205	4.23	1.74 to 11.34	2.03	0.90 to 4.91	2.15	0.79 to 6.90	
Eyes and general health								
Itching eyes >10 ×/year	206	1.35	0.61 to 3.05	2.85	1.31 to 6.50	4.97	1.89 to 15.67	
Smarting eyes >10 ×/year	205	2.44	1.02 to 6.22	2.42	1.06 to 5.86	10.40	2.87 to 66.96	
Nausea or vomiting >5 ×/year	204	2.65	0.87 to 9.97	4.10	1.28 to 18.44	§§	§§	
Excessive tiredness >5 ×/year	200	2.80	1.22 to 6.72	1.83	0.84 to 4.11	§§	§§	
Shivering	210	4.63	1.44 to 20.85	3.67	1.32 to 12.20	§§	§§	
Joint trouble >10 ×/year	207	1.27	0.54 to 3.07	1.52	0.65 to 3.71	4.30	1.55 to 14.17	
Muscular complaints >10 ×/year	201	1.17	0.47 to 2.99	1.39	0.55 to 3.86	2.99	1.02 to 11.03	

*Only the significantly increased complaints from table 3 are listed and printed in bold type.

†CFU, colony forming units.

‡Distance of home to the emitting site 150–200 m.

§Frequency of occurrence in the past 12 months. If not otherwise stated, rates are for a single occurrence.

¶SS, sample size.

**OR, odds ratio of those living the stated distance from site compared to those living >400 m from the site adjusted for odour annoyance in the residential area, period of residence in the present home >5 years, and age.

††CI, confidence interval.

‡‡Criteria of the World Health Organisation for chronic bronchitis.

§§Due to the small number of subjects of this complaint reliable odds ratio could not be determined.

microorganisms) population of the same neighbourhood was positively associated with eight items of reported health (table 5).

“Shortness of breath” (“following exertion” and “while at rest”) was most strongly associated with residential exposure to highest concentrations ($>10^5$ CFU m^{-3}) bioaerosols. Frequency of perceived bronchitis in the past 12 months and two symptoms associated with cough all had positive adjusted OR above 2.5. Sore eyes as well as diarrhoea, excessive tiredness, and shivering were also positively associated with the close proximity of home to the composting site (table 5).

Duration of present residency (>5 years), defining those individuals exposed to residential bioaerosol since the commencement of operations at the site, was positively associated with an increased frequency of one third of the airway complaints, eye complaints, as well as nausea or vomiting and

shivering. Specific odour annoyance did not confound any of the airway related complaints in the neighbourhood of the composting site (table 5).

In this analysis, distance of the home from the site, and duration of residency, as well as residential odour annoyance were not associated with increased reporting of lifetime prevalence of 18 self reported doctor diagnosed illnesses.

DISCUSSION

Concentrations of culturable airborne microorganisms, including moulds, measured in the residential air during the study (table 2) at 150 to 320 m from the composting site were 100–1000 times higher than those concentrations generally reported as natural background concentrations. Background concentrations for total bacteria and moulds are given as $<10^3$

CFU m⁻³ air and <10² CFU m⁻³ air for actinomycetes.² As a result of this, and particularly because of the detection of site typical actinomycetes, a distance dependent influence of the composting site on the residential air could be demonstrated up to 550 m (table 2). In a study conducted in Islip, New York,¹⁶ the bioaerosol related influence of a large scale composting site on a residential area 500 m away could not be excluded. However, this study has methodological shortcomings as far as exposure measurements and health effects are concerned. In other studies, the bioaerosol pollution due to sites could only be demonstrated up to a distance of 200 m.⁴

The highest concentrations of total bacteria and actinomycetes (>10⁷ CFU m⁻³ air) measured, were within the range of those reported in occupational studies of composting sites.^{2 11} For total bacteria, the measured concentrations of 10⁴ or 5×10³ CFU m⁻³ air also exceeded occupational threshold levels recommended in Denmark and Sweden.³¹ Health effects have been observed in the studies on workplace or indoor environment in association with concentration levels recorded here for total bacteria and moulds (*Aspergillus fumigatus*).^{11 22}

These microbiological measurements were performed under meteorological conditions which occur on 50% of the days in a year. Desired "worst case" conditions were not achieved completely during these measurements. Considering this the exposure to airborne culturable microorganisms in the residential area could at times have been even higher. The additional health burden from non-culturable microorganisms or allergenic and toxic parts of microorganisms, which also occur in bioaerosols, was not even assessable in the scope of the measurements.⁷

An association could be demonstrated in the present study between residential bioaerosol pollution (<200 m from the plant) and irritative airway complaints. This association was found when comparing with less exposed subjects living in the same neighbourhood further away from the same site (>400–500 m) and also, to a greater extent, when comparing with unexposed controls. Furthermore, an association of these complaints with the duration of bioaerosol exposure (>5 years) could also in part be demonstrated. If at least two irritative mucous membrane symptoms are reported in association with chronic exposure to bioaerosols, this is suggestive of airway inflammation.⁹

Complaints of airway inflammation are to be expected after frequent exposure to microorganisms in the range of concentration of 10⁴–10⁷ CFU m⁻³ air.⁴ These concentrations are similar to those measured 200 m from the site in this study (table 2). Furthermore, due to the meteorological and topographical conditions, this exposure is likely to have existed frequently.

Irritative airway complaints (increased frequency of coughing, shortness of breath, and self diagnosed bronchitis) have already been reported in health studies concerning exposure to microorganisms: At workplaces with handling of garbage and compost, increased frequencies of airway related mucous membrane irritation, coughing, and tracheobronchitis, among others, have been reported^{2 11}; similarly, airway symptoms have been reported in residents of mouldy or damp homes.^{20–22}

The high OR found in both analyses, comparing highest exposed to unexposed controls as well as least exposed are not considered to be due to unrecognised bias. They are considered to result from high measurable concentrations of airborne microorganisms in residential air (200 m from the site), dropping sharply within 300 m and reaching near background concentrations at 550 m.

It could be shown that perceived odour annoyance, considered to be a strong bias on self reported complaints, had no influence on these irritative airway complaints (table 5). Odour annoyance was only associated with general complaints. This could have been expected on the basis of previous reports.^{24–26} Comparable results were found when studying odour annoyed (90%) neighbours of another composting site. Rates of health complaints showed no association (versus

controls in a neighbourhood without a composting site) with residency near the composting site (data not shown).

Examiners and study population were blinded to the results of microbiological measurements during the field work as samples for these measurements were obtained during the ongoing survey. Further aspects speak against a reporting bias, based on prejudices regarding the plant: self reported lifetime diagnoses of illnesses were not associated with exposure, although occurrence of some diseases (for example, infections and allergies) had been feared by the residents beforehand. They had stated this during the public event which took place prior to the survey. Furthermore, respondents knew interviewers would not be able to prove or disprove during the house calls whether reported illnesses actually existed.

Additional aspects speak against general over reporting of all health complaints in the neighbourhood of the composting site. Skin irritation (data not shown), occurring when in close occupational contact with waste,² was not reported more often, for instance. The same applies for perceived hay fever. It was reported least very close to the site (table 3).

Bioaerosol exposure from other everyday sources or exposure to respiratory irritants also cannot explain the findings of this study, as they were reported the same or less frequently by the group near the site than by the unexposed control group (table 1). Addressing a possible bias due to the low participation rate in the unexposed group, the following should be considered. In a sample with a low participation rate, those more health conscious or health impaired would be more likely to participate in this unexposed sample. This in turn would then lead to higher rates of health complaints in these controls compared to the exposed population, and underestimate the true health effects.

Specific allergic and infectious diseases are reported in subjects exposed to various bioaerosols working at composting sites, indoors, and in the environment.^{3 4 13–15 17 19} Severe toxic-irritative reactions (ODTS, pulmonary mycotoxicosis, or toxic pneumonitis), occurring after a single inhalation of very high levels of spores (10⁶–10⁹ spores m⁻³ air),^{3 6 8} and pulmonary haemorrhage²¹ have also been described concerning occupational settings and in case reports of indoor environmental exposure. Actinomycetes and mould spores, as well as endotoxins and glucanes,²² are discussed as their causes. There was no indication in the presented study that the exposure detected in the scope of this study led to any of the above illnesses in the five years since the composting site started operating. However, in this context the limitations of relying on self reported health status have to be taken under consideration.

In the present study, as claimed by others,^{4 18} the health related problems of environmental bioaerosols were assessed by measuring microbiological pollution in the residential environment and simultaneously collecting medical histories. Odour annoyance, always associated with bioaerosols, was taken into consideration. To the authors' knowledge it was found for the first time that there can be a demonstrable bioaerosol pollution of the residential environment, which is in part still detectable at a distance of 550 m. This bioaerosol exposure in turn could be associated, as far as concentrations of bioaerosols and duration of exposure were concerned, with symptoms suggestive of airway inflammation also reported at respective workplaces.

Due to methodological shortcomings, cross sectional studies are not able to prove or disprove a causal relationship. Nevertheless it is believed that on the basis of this study irritative airway complaints pointing at MMI-like airway inflammation can be seen as associated with measurable residential bioaerosol pollution.

The health complaints found here in association with residential bioaerosol exposure were not accompanied by increased self reports of diseases diagnosed by a doctor. This

might have been anticipated, as on the one hand diagnosing airway irritation related to environmental exposure is not common by general physicians. On the other hand, higher rates of diseases with clear laboratory findings or organ impairment could not have been expected. Nevertheless, several considerations should be made when considering their relevance as far as public health is concerned. For airway inflammation related to bioaerosol exposure, a toxic or non-specific genesis is hypothesised. It can be accompanied by an increase in bronchial reactivity as a sign of an inflammatory process as well as possibly being the onset of chronic bronchitis.^{2,7,9} An effect of the bioaerosol concentration in the residential air with regard to excessive tiredness and shivering (table 5) was also detected in the present study. At workplaces with garbage or compost handling, and in homes containing mould, single general complaints of general disturbances, for example, toxic pneumonitis, including shivering and tiredness, are often observed.¹¹

This study forms the basis for further studies using more sophisticated designs (for example, prospective panel study) to study the clinical relevance of these irritative airway symptoms. Clinical parameters, for example, lung function examinations could be included, particularly since connections have been found in the workplace between symptoms of airway inflammation and changes in lung function.⁹ Risk groups for airway effects (for example, children) could be particularly looked at. Due to the small sample of children this was not possible in the present study.

Furthermore, mucous membrane lavage could be carried out to document inflammatory changes and evidence of specific antibodies in the sense of exposure manifestation.^{2,12} As the amount of time spent outdoors in the residential area is relatively small, and therefore exposure to outdoor air only represents a small part of the day, the possible accumulation in interior rooms of airborne microorganisms from emission sources should be measured in the future.

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Effects of bioaerosol polluted outdoor air on airways of residents: a cross sectional study

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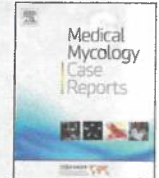
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Acute Aspergillus pneumonia associated with mouldy tree bark-chippings, complicated by anti-glomerular basement membrane disease causing permanent renal failure

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ABSTRACT

A non-immunocompromised man developed acute Aspergillus pneumonia after spreading mouldy tree bark mulch. Despite normal renal function at presentation, he developed rapidly progressive glomerulonephritis with acute kidney injury due to anti-glomerular basement membrane antibodies (anti-GBM) 4 weeks later. He remained dialysis dependent and died of sepsis 10 months later. We hypothesise that he contracted invasive pulmonary Aspergillosis from heavy exposure to fungal spores, leading to epitope exposure in the alveoli with subsequent development of GBM auto-antibodies.

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1. Introduction

Goodpasture's Syndrome has been widely described in the medical literature. It is characterised by a rapidly progressive glomerulonephritis due to circulating anti-glomerular basement membrane (anti-GBM) antibodies. The subject of this report developed acute pulmonary Aspergillosis following exposure to fungal spores in mouldy tree bark whilst gardening and this led to Goodpasture's Syndrome. We believe that this is the first presentation of Aspergillosis induced Goodpasture's Syndrome to be reported in the medical literature.

2. Case

A 69 year old retired man with no significant medical history was admitted to hospital with a 5 week history of increasing

dyspnoea and intermittent haemoptysis. He had worked in a metal foundry and cardboard works. Antibiotics in the community had not improved his symptoms. He was a lifelong smoker of 30 cigarettes per day.

On admission (day 0), his temperature was 37.2 °C, his pulse was 72, his respiratory rate 22 per minute and his blood pressure was 120/69 mmHg. His oxygen saturation on air was 90%, falling to 84% on walking. Bilateral crackles were present at the lung bases. Chest radiograph on day 0 revealed bilateral patchy infiltrates (Fig. 1a).

Initial blood tests revealed raised inflammatory markers (CRP 225 mg/L and leucocyte count $19.5 \times 10^9/L$ with a neutrophilia). Creatinine was 70 $\mu\text{mol/L}$. Initial urine dipstick was unremarkable. He was treated with amoxicillin and clarithromycin for community acquired pneumonia. Spirometry on day+5 was as follows: FEV1 1.69 L (55% predicted); forced vital capacity 2.59 L (65% predicted); FEV1/FVC ratio 65%.

On day+6, a high resolution CT of his thorax revealed widespread fine nodularity, maximal in the midzones and ill-defined peribronchial inflammatory shadowing. There was bronchiectasis (which had improved on a follow-up scan 2 months later) and patchy "tree-in-bud" change, but no radiological features of pulmonary haemorrhage. At bronchoscopy on day+7, endobronchial biopsies showed non-specific inflammatory changes, with no granulomata seen. Trans-bronchial biopsy was not possible as the patient's oxygen levels fell and so the procedure was abandoned. Serum ANA was weakly

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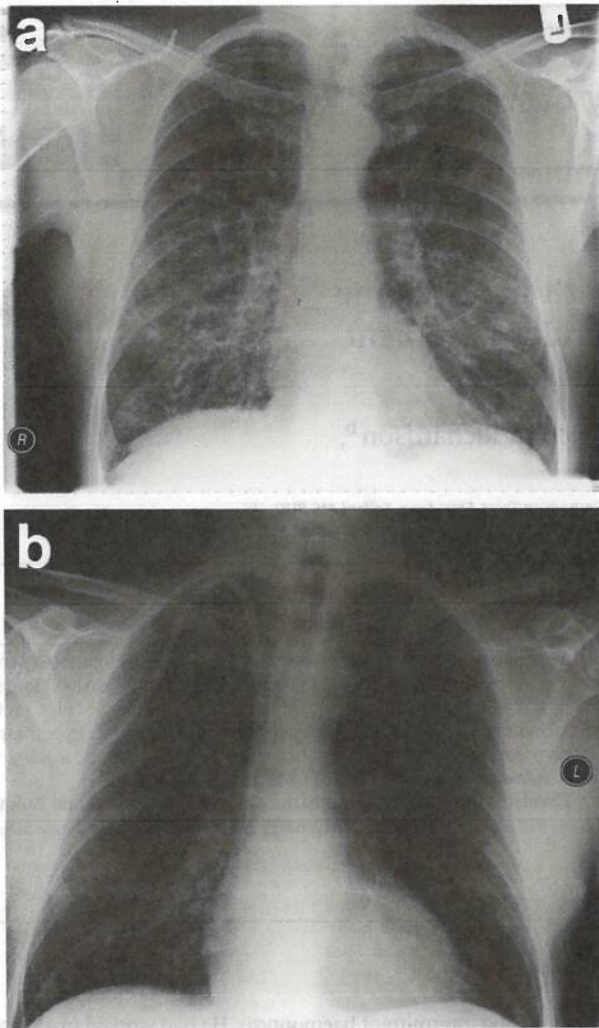


Fig. 1. Chest radiograph at presentation (a) and 2 months later (b).

positive at 1/100 (speckled pattern) with negative ENA and ANCA. Blood levels of IgG and IgA were borderline elevated. Serum IgE was elevated at 1049 ku/L. He had elevated IgG to *Aspergillus fumigatus* of 47 mgA/L (reference range up to 40 mgA/L) but his *A. fumigatus* IgE level was normal. Galactomannan assay was not available at the time of this case report. A diagnosis of acute invasive pulmonary Aspergillosis (IPA) was made and he was discharged home on day+13, on oral Itraconazole, 200 mg twice daily. His discharge creatinine was 80 μ mol/L.

At clinic on day+27, his respiratory symptoms had improved substantially following treatment. His oxygen saturation was 95% at rest. He was able to climb 20 steps and the saturation did not fall below 90%. Spirometry was greatly improved at 2.4/3.9 (FEV1 78% predicted, vital capacity 90% predicted, FEV1/FVC ratio 61%). The chest radiograph showed substantial improvement (Fig. 1b). Direct questioning revealed that his symptoms had developed about 2 weeks after spreading eight, 40 L bags of foul smelling mouldy tree bark on the garden. This material was subsequently cultured in the National Aspergillosis Centre and it grew *A. fumigatus*, *Rhizopus* spp., *Sporobolomyces* spp. and bacteria (Fig. 2).

Blood results from clinic showed his renal function had dramatically deteriorated. His urea was 39.6 mmol/L and creatinine was 851 μ mol/L. He was readmitted urgently and itraconazole was stopped. Renal ultrasound revealed no urinary tract obstruction.

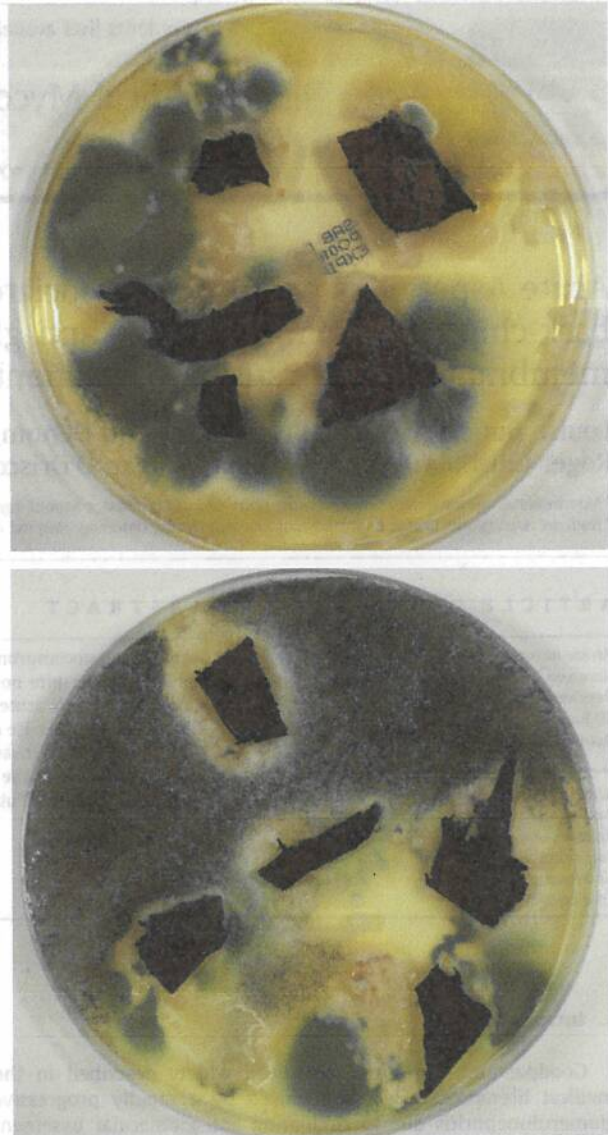


Fig. 2. Tree bark particles on fungal culture plates.

A renal immunology screen showed positive anti-glomerular basement membrane (anti-GBM) antibodies with a titre of 111 U/ml (ELISA assay) (reference range < 15 U/ml). Retrospective analysis of a blood sample from day 3 of his first hospital admission showed an anti-GBM titre of 67 U/ml at that time. Renal biopsy demonstrated necrotising crescentic glomerulonephritis with linear deposition of IgG along the basement membrane, consistent with anti-GBM disease.

On day+28, he was commenced on haemodialysis, pulsed methylprednisolone 500 mg once daily for 3 days, cyclophosphamide 750 mg (once monthly dose) and plasma exchange. Itraconazole was restarted due to the risk of reactivation of Aspergillosis. Despite these measures, he remained anuric. Subsequent anti-GBM antibody titres were significantly lower (20 U/ml 6 weeks post-presentation, 8 U/ml at 8 weeks and < 7 U/ml at 5 months post-presentation). *Aspergillus* IgG 6 weeks after his acute respiratory presentation had fallen to 7 mgA/L, and after 3 months total IgE was normal. Unfortunately the patient remained frail and

housebound despite haemodialysis and he died from severe sepsis and acute pneumonia 10 months after his first presentation.

3. Discussion

Invasive pulmonary Aspergillosis has specifically been reported in healthy individuals after spreading rotting tree bark whilst gardening [1–3]. In previous cases, massive inhalation of spores was thought to be the likely route of infection [3]. There is diagnostic difficulty in these cases and diagnosis is often made at post-mortem, because blood and sputum cultures have poor sensitivity [1,3]. Serological testing for *Aspergillus* IgG antibodies can be used in the diagnosis of IPA. In a study of patients developing IPA following bone marrow transplant, an IgG response to acute infection was noted [4]. *A. fumigatus* has been implicated in invasive disease.

Anti-GBM antibody disease is characterised by a rapidly progressive glomerulonephritis due to circulating anti-GBM antibodies. The target of these antibodies is the non-collagenous domain of the $\alpha 3$ chain of Type IV collagen [5]. There is a body of evidence to suggest that certain human leucocyte antigen (HLA) molecules, notably HLA-DR 15 and HLA-DR 4, are associated with the development of anti-GBM disease [6]. Subsequent analysis of our patient's HLA type revealed HLA-DR 17 and DR 4.

Hypothetically certain epitopes that are normally immunologically privileged can become exposed and perceived as foreign, leading to antibody development [7]. *A. fumigatus* conidia bind to type IV collagen (and fibrinogen), a process inhibited by free sialic acid and in particular N-acetylneuraminic acid [8]. Whether the binding of *A. fumigatus* to collagen IV in the lung altered the allergenicity of this major structural protein, allowing auto-antibodies to be formed, remains conjecture. It has been hypothesised that exposure to certain environmental factors may affect the molecular structure of $\alpha 3$ NC1 domain, making antibody binding more likely [5].

Development of Goodpasture's syndrome has been reported following exposure to inhaled chemicals, drugs and in association with infectious disease [9]. Hidden epitopes may become exposed during these episodes.

We hypothesise that our patient contracted invasive pulmonary Aspergillosis due to heavy exposure to fungal spores whilst gardening. This led to epitope exposure in the alveoli with subsequent development of GBM auto-antibodies and acute renal failure, in an individual with pre-existing genetic risk factors. We believe that this is the first such presentation in the medical literature.

Conflict of interest

We have no conflicts of interest in the publication of this article, including financial ones to declare.

Acknowledgements

All co-authors have seen and agree with the contents of the manuscript and there is no financial interest to report. We certify that the submission is original work and is not under review at any other publication. The results presented in this paper have not been published previously in whole, or part, except in abstract form. The patient himself has since died and gave verbal consent for publication prior to his death. We have now obtained written consent from his wife for this case report to be published.

If our case report is accepted for publication we would wish the colour picture to appear in the printed journal (Fig. 2). We accept the charge for this.

The contributions of the individual authors are as follows. All of the authors were involved in the clinical care of the patient described in the case. Dr. T. Brockley performed the literature searches and drafted the discussion section. Dr. L. Butler drafted the case presentation. Both of the above authors were responsible for editing and revising the article prior to submission. Dr. O'Driscoll, Dr. Sinha, Professor Denning and Professor Richardson were involved in the editing process and also provided intellectual advice of critical importance regarding the proposed disease mechanism. Dr. Chisholm provided radiology advice regarding the patient. In addition, Dr. O'Driscoll initiated the writing of the article and edited each section. He also had final approval of the article prior to submission. Dr. Butler is the main contact correspondent. All authors have reviewed the article for final submission approval.

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Fulminant Mulch Pneumonitis: An Emergency Presentation of Chronic Granulomatous Disease

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(See the article by Béné et al. on pages 682–6)

Background. Chronic granulomatous disease (CGD) is associated with multiple and recurrent infections. In patients with CGD, invasive pulmonary infection with *Aspergillus* species remains the greatest cause of mortality and is typically insidious in onset. Acute fulminant presentations of fungal pneumonia are catastrophic.

Methods. Case records, radiograph findings, and microbiologic examination findings of patients with CGD who had acute presentations of dyspnea and diffuse pulmonary infiltrates caused by invasive fungal infection were reviewed and excerpted onto a standard format.

Results. From 1991 through 2004, 9 patients who either were known to have CGD or who received a subsequent diagnosis of CGD presented with fever and new onset dyspnea. Eight patients were hypoxic at presentation; bilateral pulmonary infiltrates were noted at presentation in 6 patients and developed within 2 days after initial symptoms in 2 patients. All patients received diagnoses of invasive filamentous fungi; 4 patients had specimens that also grew *Streptomyces* species on culture. All patients had been exposed to aerosolized mulch or organic material 1–10 days prior to the onset of symptoms. Cases did not occur in the winter. Five patients died. Two patients, 14 years of age and 23 years of age, who had no antecedent history of recognized immunodeficiency, were found to have p47^{phox}-deficient CGD.

Conclusions. Acute fulminant invasive fungal pneumonia in the absence of exogenous immunosuppression is a medical emergency that is highly associated with CGD. Correct diagnosis has important implications for immediate therapy, genetic counseling, and subsequent prophylaxis.

Chronic granulomatous disease (CGD) of childhood, first described in 1959 [1], is caused by defects in 1 of 4 structural components of the reduced nicotinamide adenine dinucleotide phosphate oxidase enzyme. Mutations in the X-linked gp91^{phox} account for ~70% of cases, and the remainder are autosomal recessive in p22^{phox}, p47^{phox}, and p67^{phox} [2]. Patients with CGD are prone to develop characteristic bacterial and fungal infections due to pathogens such as *Staphylococcus aureus*, *Serratia marcescens*, *Burkholderia cepacia*, *Nocardia* spe-

cies, and *Aspergillus* species [2, 3]. In addition, these patients develop steroid-responsive granulomatous complications, including inflammatory bowel disease, urinary tract obstruction, and wound dehiscence, presumably because of abnormal degradation of inflammatory mediators [2, 4, 5].

Unique to CGD among genetic immunodeficiencies is susceptibility to invasive infection with filamentous fungi, especially *Aspergillus* species, which typically occurs in the pulmonary system, is difficult to treat, and is the single greatest cause of mortality associated with CGD [3, 6]. In general, fungal infection in patients with CGD is more indolent than infection due to bacteria [3, 7], and patients rarely experience pulmonary cavitation or hemoptysis because of *Aspergillus* infection. High-level exposure to aerosolized fungi, such as that which can occur during mulching, may lead to an acute fulminant presentation, with fever, dyspnea, and pulmonary infiltrates, and to death. Two such cases of the

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initial presentation of CGD in adolescents and young adults led us to review cases to better characterize this clinical entity.

MATERIALS AND METHODS

The case records of 156 patients with CGD who were followed up according to approved protocols at the National Institutes of Health (NIH; Bethesda, MD) since 1986 were reviewed for acute presentations of fever, dyspnea, diffuse pulmonary infiltrates, and filamentous fungal infection. We also solicited cases from outside the NIH.

Patient 1. A previously healthy 14-year-old boy presented to his local hospital in the fall of 2004 with a 3-day history of fever, sore throat, and shortness of breath. A chest radiograph revealed bilateral infiltrates (figure 1A). One week previously, the boy had cleaned gutters containing dead leaves. Despite cefuroxime and azithromycin therapy for community-acquired pneumonia, his hypoxia worsened, leading to intubation and mechanical ventilation on hospital day 4. Meropenem, metronidazole, clarithromycin, and fluconazole were added to his treatment regimen, but respiratory failure progressed; high-dose methylprednisolone therapy was started for possible vasculitis. On hospital day 11, a lung biopsy specimen showed necrotic lung tissue with fungal hyphae and grew *Aspergillus fumigatus*. The dihydrorhodamine test result was consistent with CGD. Voriconazole, caspofungin, and IFN- γ therapy, as well as neutrophil transfusions, were initiated. High-level oxygenation requirements and deterioration of hepatic and renal function led to death 1 month after presentation. Autopsy revealed disseminated fungal infection, granulomatous foci in the lungs and brain with *A. fumigatus*, and extensive vascular in-

vasion and infarction (in the lungs, kidneys, liver, and spleen) due to *Absidia corymbifera*. The patient was subsequently confirmed to have had p47^{phox} deficiency.

Patient 2. A previously healthy 23-year-old female athlete presented to an emergency department in the summer of 2003 with acute onset of dyspnea 1 day after having performed heavy mulching. The initial chest radiograph was read as normal, and the patient was discharged from the hospital (figure 1B). Twenty-four hours later, her dyspnea worsened and was accompanied with fever and bilateral infiltrates (figure 2A). Antibiotic therapy for community-acquired pneumonia was initiated. The findings of bronchoscopic examination were not diagnostic. Fever and dyspnea progressed to hypoxia, and the patient required intubation and mechanical ventilation. A visually assisted thoracoscopic biopsy was performed on hospital day 8; observation of the specimen revealed intense pyogranulomatous inflammation, with invasive hyphae, and the specimen grew *A. fumigatus* and *Rhizopus* species (figure 3A–C). The dihydrorhodamine test result was consistent with p47^{phox}-deficient CGD. When the patient was transferred to the NIH (figure 4A and B), treatment with voriconazole, caspofungin, meropenem, and methylprednisolone led to gradual improvement. Her course was complicated by recurrent bilateral pneumothoraces and exacerbation of pulmonary inflammation upon reduction of prednisone therapy. A second biopsy was performed, and degenerating hyphal elements were seen but did not grow from the biopsy specimens. The patient recovered, with return to normal lung function (figure 4C and D). She had had several respiratory infections during infancy and an episode of “cat scratch disease,” all of which had resolved with

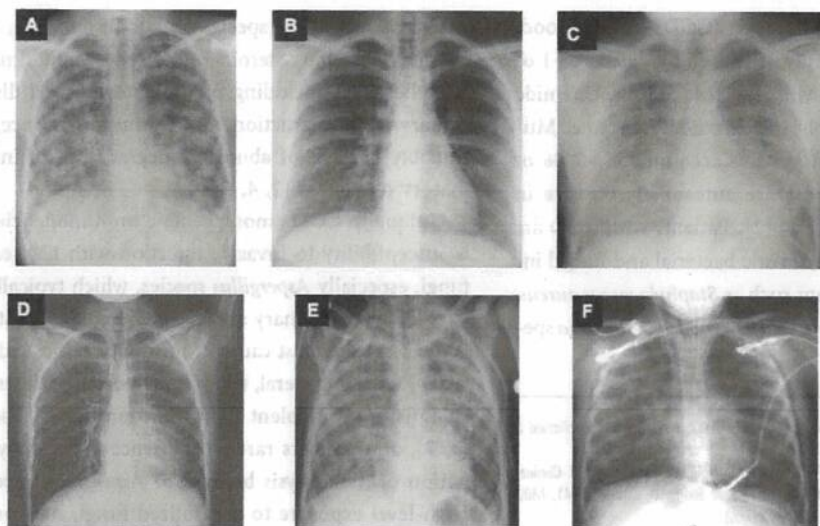


Figure 1. Chest radiographs at presentation for patients 1 (A), 2 (B), 4 (C), 6 (D), 7 (E), and 9 (F). Although the initial film of patient 2 was read as normal, the second films, shown in figure 2, were obtained <24 h later and showed bilateral infiltrates.

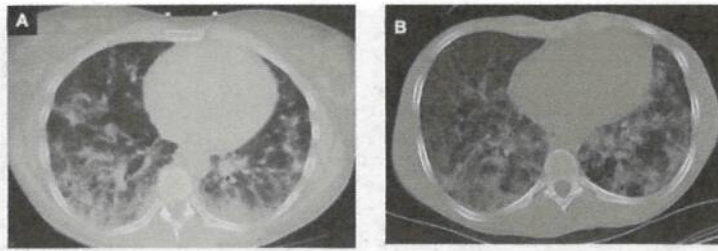


Figure 2. CT of the thorax from patients 2 (A) and 5 (B) that were obtained during hospitalization, showing bilateral pulmonary infiltrates

oral antibiotic treatment. She and her 25-year-old brother, who had had 2 episodes of “cat scratch disease” and 1 episode of cellulitis, were subsequently confirmed to have p47^{phox} deficiency.

Patient 3. A 20-year-old man with known gp91^{phox} deficiency who was receiving prophylactic trimethoprim-sulfamethoxazole (TMP-SMX) therapy presented in the summer of 2001 with a 3-day history of fever, cough, and progressive dyspnea. For 3 weeks prior to hospital admission, he had been working in the forest, chipping wood. At hospital admission, he was hypoxic, with bilateral crackles. Despite treatment with amphotericin B, rifampin, and flucloxacillin, the patient required intubation 24 h after hospital admission because of respiratory failure. Sputum and tracheal aspirate cultures grew *A. fumigatus*. Respiratory worsening, with bilateral recurrent pneumothoraces, led to death 10 days after hospital admission. No autopsy was performed.

Patient 4. A 23-year-old man with known gp91^{phox} deficiency who was receiving prophylactic TMP-SMX and itraconazole, as well as prednisone (5 mg every other day), for granulomatous bowel disease, presented to the NIH in the fall of 2001 with a 1-week history of fever, progressive cough, and flu-like symptoms after working in a lawn mower repair shop. His temperature was 39.8°C, and he had tachypnea and bilateral interstitial infiltrates (figure 1C). A treatment regimen of levofloxacin, ceftriaxone, TMP-SMX, liposomal amphotericin B, and solumedrol (1 mg/kg daily) was initiated. Percutaneous lung biopsy was performed, and the specimen grew *A. fumigatus*, *Aspergillus niger*, *Rhizopus* species, *Penicillium* species, and *Streptomyces thermoviolaceus*. Respiratory failure led to intubation, mechanical ventilation, and bilateral pneumothoraces. The patient died 1 month after presentation. Autopsy revealed extensive abscess formation in the lungs, with abundant hyphal forms consistent with *Aspergillus* species.

Patient 5. A 64-year-old man with known p47^{phox}-deficient CGD, insulin-dependent diabetes mellitus, and atherosclerotic coronary artery disease was receiving prophylactic TMP-SMX, itraconazole, and IFN- γ therapy. His initial diagnosis was reported elsewhere [8]. He presented in the fall of 2001 with a 1-day history of dyspnea and cough, oxygen saturation of 91%

on room air, with bilateral pulmonary infiltrates (figure 2B). One week previously, the man had been mulching trees in his yard. A treatment regimen of intravenous ceftriaxone, TMP-SMX, amphotericin B deoxycholate, and solumedrol (60 mg every 12 h) was initiated. Bronchoscopic examination revealed branching septate hyphae, and specimens grew *A. fumigatus*, *A. niger*, and *Penicillium* species. Dyspnea and hypoxia led to intubation and mechanical ventilation on hospital day 5. The patient was extubated on day 14, and steroid therapy was gradually tapered. Although his fungal infection resolved, the patient’s course was complicated by diabetes, congestive cardiac failure, and recurrent respiratory failure. He died of respiratory failure 1 year after admission to the hospital. No autopsy was performed.

Patient 6. A 16-year-old boy with known gp91^{phox} deficiency who was receiving prophylactic TMP-SMX and IFN- γ therapy presented in the fall of 1999 with fever, cough, dyspnea, and bilateral patchy infiltrates 1 week after riding a tractor while harvesting a field of peppermint (figure 1D). On admission to the NIH, a treatment regimen of ceftriaxone, TMP-SMX, amphotericin B deoxycholate, and methylprednisolone (60 mg every 12 h) was initiated. Culture of bronchoalveolar lavage specimens grew *Aspergillus nidulans*. The patient’s health gradually improved while receiving therapy, and he was discharged from the NIH after 1 month, with return to normal lung function while receiving itraconazole therapy (200 mg/day).

Patient 7. An 8-year-old boy with known X-linked CGD who was receiving prophylactic TMP-SMX and IFN- γ therapy presented in the fall of 1999 with fever, cough, rhinorrhea, headache, fatigue, and normal chest radiograph findings 1 week after playing in a moldy garden shed. Therapy with ceftriaxone and gentamicin led to some improvement, but on hospital day 3, the patient became tachypneic and hypoxic, with bilateral infiltrates. Treatment with amphotericin B deoxycholate, vancomycin, TMP-SMX, and azithromycin was initiated. On transfer to the NIH (20 days after presentation), the boy had a temperature of 38.6°C and was tachypneic and hypoxic (figure 1E). Therapy was changed to levofloxacin, imipenem, amphotericin B deoxycholate, and prednisone (1 mg/kg daily). An open lung biopsy was performed, and the specimen revealed

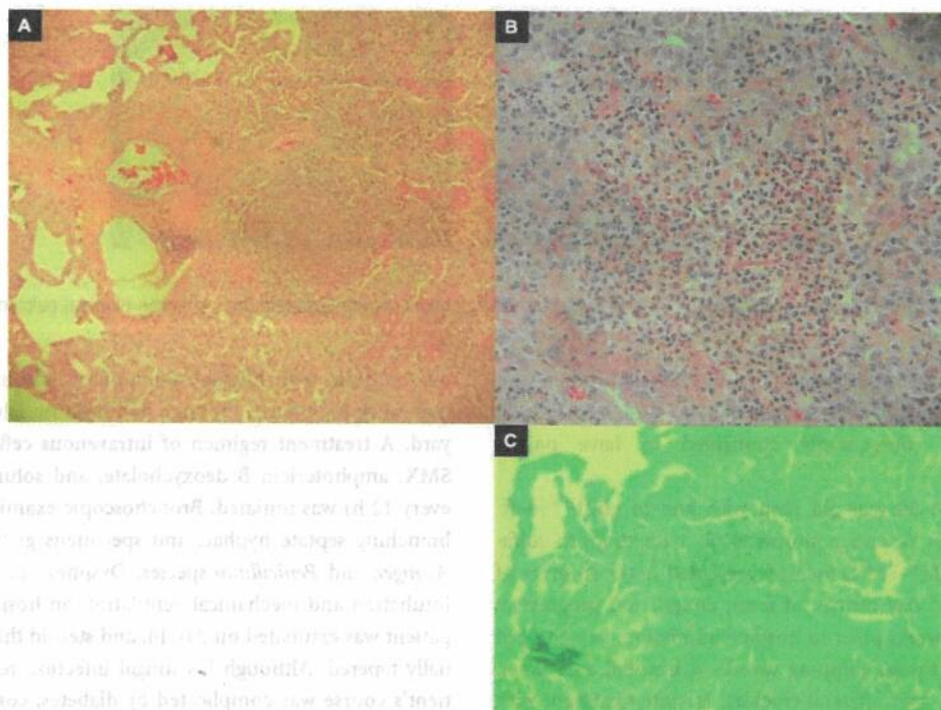


Figure 3. Photomicrographs of the lung biopsy specimen from patient 2 that was obtained on hospital day 8. *A*, Low-power view of lung parenchyma, showing intense pyogranulomatous inflammation with virtually complete effacement of lung architecture (hematoxylin and eosin stain; original magnification, $\times 100$). *B*, Microabscess with visible hyphal structures centrally (hematoxylin and eosin stain; original magnification, $\times 400$). *C*, Gomori-methenamine-silver stain of the section in *B*, showing numerous hyphae.

hyphae consistent with *Aspergillus* species; however, culture of the specimen showed no growth. The patient's health improved gradually, and steroid therapy was tapered. The patient was discharged from the hospital 22 days after NIH admission, with return to normal lung function while receiving amphotericin B deoxycholate therapy.

Patient 8. An 18-year-old man with known p47^{phox}-deficient CGD who was receiving TMP-SMX and IFN- γ therapy presented in the summer of 1995 with a 4-day history of fever, cough, dyspnea, nausea, malaise, and fatigue. Six days before hospital admission, he had swept a trailer that was used for hauling mulch. On admission to the NIH, he had a temperature of 38.4°C and was hypoxic, with diffuse bilateral infiltrates. Treatment with ceftriaxone, TMP-SMX, ciprofloxacin, amphotericin B deoxycholate, and methylprednisolone (60 mg daily) was initiated. Culture of bronchoalveolar lavage specimens grew *A. niger*, *Rhizopus* species, and *Streptomyces* species. Dyspnea and hypoxia worsened on hospital day 3, and granulocyte transfusions were started. The patient's health improved gradually, and he was discharged from the NIH after 1 month of itraconazole therapy (200 mg twice daily), with return to normal lung function.

Patient 9. A 10-year-old boy with a known gp91^{phox} defi-

ciency who was receiving prophylactic TMP-SMX and IFN- γ therapy presented to his pediatrician in the fall of 1991 with fever (temperature, 39.8°C), malaise, and anorexia. After 3 days without improvement, he was admitted to the NIH with fever (temperature, 38.7°C), tachypnea, and diffuse bilateral infiltrates (figure 1*F*). The patient had helped his father spread mulch several days prior to the onset of symptoms. Dyspnea and hypoxia led to intubation and mechanical ventilation. Treatment with ceftazidime, oxacillin, gentamicin, TMP-SMX, amphotericin B deoxycholate, and solumedrol (100 mg every 8 h) was initiated. Culture of bronchoalveolar lavage specimens grew *A. fumigatus*, *Rhizopus* species, and *Streptomyces* species. A decrease in respiratory function, bilateral pneumothoraces, and shock led to death 1 week after admission to the NIH. Autopsy revealed severe diffuse necrotizing *Aspergillus* pneumonia.

RESULTS

Clinical presentations. The above cases illustrate a temporal relationship between exposure to mold, especially mulch, and presentation with clinical pneumonia in patients with CGD. All patients presented within 10 days after an identifiable ex-

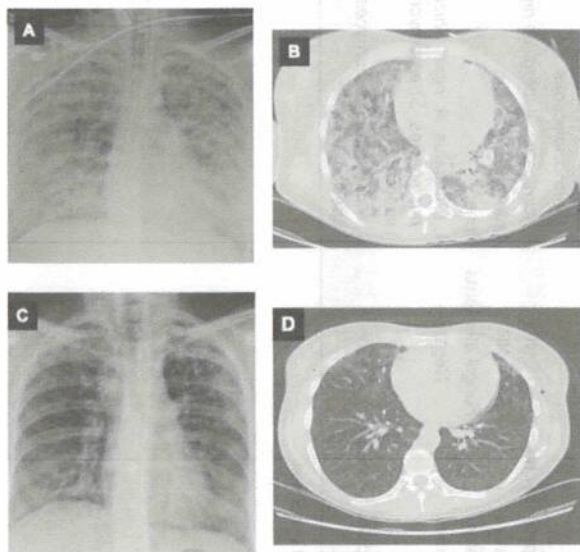


Figure 4. Chest radiographs and CT of patient 2 at transfer to the National Institutes of Health (day 10 of hospitalization; *A* and *B*, respectively) and 2 months after transfer (*C* and *D*, respectively). Note the remarkable resolution of infiltrates and the absence of pneumatoceles, despite the occurrence of pneumothoraces.

posure (table 1) to aerosolized organic material with symptoms of respiratory illness, including fever, flu-like symptoms, and cough. Dyspnea was present in 6 of 8 patients at initial evaluation, and hypoxia developed in all of the patients, except patient 6. Chest radiographs at the time of presentation revealed bilateral infiltrates in all of the patients, except patient 2, who was initially seen 1 day after exposure. By 3 days after the onset of symptoms, all patients had diffuse bilateral infiltrates. Clinical and radiographic progression was rapid. Patients presented with symptoms from May through November; cases were not reported during the early spring or winter.

Microbiologic examination. The diagnosis of fungal pneumonia was made on the basis of examination of bronchoalveolar lavage or lung biopsy specimens. Culture results were positive from at least 1 source in all patients, except patient 7, who had been extensively pretreated; however, examination of biopsy specimens revealed invasive fungal elements consistent with *Aspergillus* species. *A. fumigatus* was isolated from 7 patients, *A. niger* from 2, and *A. nidulans* from 1. Other organisms cultured specimens included *Rhizopus* species, *Penicillium* species, and *Streptomyces* species. The extent to which these organisms contributed to the clinical condition is unclear. Specimens from patient 1 revealed disseminated *Absidia corymbifera*; he had received high-dose steroidal therapy for presumed vasculitis, and this may have predisposed him to invasive infection with *Absidia* species. No routine bacteria were isolated. The rate of fungal coinfection with *Nocardia* species

among patients with CGD is ~30% [7], but we recovered no *Nocardia* species from these patients, despite aggressive microbiologic search. However, all patients received antibiotics during their treatment, which would have treated infection due to *Nocardia* species. Environmental mulch specimens were obtained for culture for patients 2 and 9. Results of PFGE of environmental samples associated with patient 2 did not match the *Aspergillus* species found on culture of her lung specimen, possibly reflecting the heterogeneous nature of mulch. Two patients were supposedly receiving itraconazole prophylaxis at the time of presentation, suggesting that high levels of exposure can overcome prophylactic therapies.

Management and outcome. Initial treatment was empirical in all cases. In patients with known CGD, therapy was based on the organisms that were commonly pathogenic for these patients (table 1). Others were treated for community-acquired pneumonia. In patients whose disease progressed, steroid therapy was added, and lung biopsies were performed. For patients 1 and 2, identification of invasive aspergillosis led to the consideration of CGD. Most patients were treated with amphotericin B deoxycholate or a lipid formulation. Voriconazole and caspofungin were added only after biopsies were performed.

Five of the 9 patients died, 4 early in the course of treatment and 1 after a protracted hospitalization. Patients who survived had hospital stays of 4–6 weeks. The time from exposure to presentation and diagnosis did not appear to be linked to survival. Treatment was prolonged and included steroid therapy with a slow taper.

Genetics. Almost one-half of the patients in this series had p47^{phox} deficiency, in contrast to the 25% rate of p47^{phox} deficiency seen in most large series. The late presentation of CGD in patients 1 and 2 after a large exposure likely reflects the overall more-benign course of p47^{phox} deficiency, which is often diagnosed later in life than is X-linked disease [6].

DISCUSSION

Invasive *Aspergillus* infection is a hallmark of compromised phagocyte immunity. Although most cases are extensively described in relation to neutropenia, it occurs in association with many immunocompromised states, as well as in association with emphysema, cavitory lung disorders, and hyper IgE syndrome. Chronic necrotizing pulmonary aspergillosis has been described in a few patients with severe underlying lung disease and low levels of circulating mannose-binding lectin [9]. Among genetic immunodeficiencies, CGD is the only one associated with invasive aspergillus infection in the absence of preexisting lung damage, occurring at a rate of ~0.15 fungal infections per patient-year [10, 11].

There have been rare reports of acute, often fatal, invasive aspergillosis in individuals thought to be immunologically normal [12–14]. Given the lack of other diseases associated with

Table 1. Clinical characteristics of 9 patients with mulch pneumonitis.

Patient	Age, years	Sex	Genotype	Season	Infiltrates	Hypoxia	Exposure	Time from exposure to presentation, days	Duration of hospital stay, days	BAL result	Lung biopsy result	Organisms on culture
1	14	M	p47 ^{phox}	Fall	Bilateral	Yes	Leaves	7	30	NP	Fungal elements	<i>Aspergillus fumigatus</i> , <i>Absidia corymbifera</i>
2 ^a	23	F	p47 ^{phox}	Summer	No	Yes	Mulch	1	30	Not diagnostic	Fungal elements	<i>A. fumigatus</i> , <i>Rhizopus</i> species
3	20	M	gp91 ^{phox}	Summer	NP	Yes	Wood chips	<21	3	NP	NP	<i>A. fumigatus</i>
4	23	M	gp91 ^{phox}	Fall	Bilateral	Yes	Mulch	7	10	Negative	Inflammation	<i>A. fumigatus</i> , <i>Rhizopus</i> species, <i>Penicillium</i> species, <i>Streptomyces thermoviolaceus</i>
5	64	M	p47 ^{phox}	Fall	Bilateral	Yes	Mulch	10	354	Branching septate hyphae	NP	<i>A. fumigatus</i> , <i>Aspergillus niger</i>
6	16	M	gp91 ^{phox}	Fall	Bilateral	No	Hay	7	35	Negative	NP	<i>Aspergillus nidulans</i>
7 ^a	8	M	gp91 ^{phox}	Fall	No	Yes	Garden shed	7	43	Negative	Fungal elements	None
8	18	M	p47 ^{phox}	Summer	Bilateral	Yes	Mulch	6	30	Negative	Negative	<i>A. fumigatus</i> , <i>A. niger</i> , <i>Rhizopus</i> species, <i>Streptomyces</i> species
9	10	M	gp91 ^{phox}	Fall	Bilateral	Yes	Mulch	Unknown	6	Branching septate hyphae	NP	<i>A. fumigatus</i> , <i>Streptomyces</i> species

NOTE. At the time of severe clinical illness, all patients had abnormal chest radiograph findings. BAL, bronchoalveolar lavage; NP, not performed.

^a The findings of the initial chest radiographs of patients 2 and 7 appeared to be normal.

invasive aspergillosis and the similarity of those cases to the cases presented here, we suspect that they might represent undiagnosed CGD.

Environmental exposure to mold is ubiquitous. Conidia develop invasive hyphae, with an incubation period ranging from 2 days to 3 months [15]. The infectious inoculum for *Aspergillus* species is undefined, but in CGD mouse models, it was lower in the gp91^{phox}-deficient animals than it was in the p47^{phox}-deficient ones [16, 17]. Interestingly, patients 2 and 5, who were both p47^{phox} deficient, had spread mulch several times previously without ill effects.

The initial symptoms of this acute fungal pneumonitis overlap with viral syndromes, community-acquired pneumonia, and hypersensitivity pneumonitides. Failure of adequate therapy directed at common pathogens should lead to consideration of other etiologies, especially when the patient has a history of an immune defect, such as CGD.

All of our patients had large exposures and relatively short incubation periods, emphasizing the importance of obtaining a careful history of the type and degree of recent exposures when confronted with a compatible clinical scenario. Similar clinical characteristics in older individuals should not preclude consideration of the diagnosis, because CGD can present later in life [18].

Radiograph findings obtained early in the course of infection may have been negative, but all of the patients developed a similar diffuse radiographic result 2–10 days after the initial complaint. In contrast, most immunocompromised individuals, especially those with neutropenia, develop nodular or focal *Aspergillus* lesions [17], which are also seen in patients with the typical fungal pneumonia associated with CGD, confirming that this diffuse interstitial presentation after exposure to mulch is clinically and pathophysiologically distinct [3].

The clinical and radiographic pattern seen in association with this syndrome is reminiscent of that seen in association with other syndromes in which there are significant host response components, such as hypersensitivity pneumonitis, which may occur as a consequence of exposure to various environmental pathogens, including bacteria, mycobacteria, fungi, proteins, metals, or chemicals [19]. Farmer's lung and "hot tub lung" are caused by exposure to thermophilic actinomycetes and exposure to *Mycobacterium avium* complex, respectively [20]. They represent inflammation with or without infection, and patients with these syndromes can present with hypoxia, cough, fever, bilateral interstitial infiltrates with necrotizing or non-necrotizing granulomas, and patchy interstitial pneumonitis [19]. Important to understanding the use of steroid therapy, gp91^{phox}-deficient mice who were made to inhale heat-killed aspergillus hyphae developed extensive granulomatous lung disease, whereas normal mice did not [21]. Therefore, at least part of this clinical picture is likely to be caused by the host

immune response, even in the absence of invasive fungal infection.

Allergic bronchopulmonary aspergillosis is characterized by elevated anti-*Aspergillus* IgE, eosinophilia, fleeting pulmonary infiltrates, and reactive airways. It has been reported in individuals with CGD [22] and is a differential in this syndrome, but the diagnosis is complex. Antibodies and immediate cutaneous reactivity to *Aspergillus* species are typically demonstrated [19]. Histologic examination may reveal loosely organized granulomas, with prominent interstitial infiltrates and bronchiolitis. Acute presentations or exacerbations may include nodular pulmonary infiltrates, and CT may reveal bronchiectasis. However, allergic bronchopulmonary aspergillosis is not typically associated with invasive disease, and until recently, treatment of the infectious cause was not attempted. Successful use of high-dose steroids for the treatment of allergic bronchopulmonary aspergillosis is a strong argument for the resilience of the normal host defense against *Aspergillus* species, because steroid treatment for prolonged periods is rarely associated with invasive disease.

Invasive aspergillosis is usually diagnosed when clinical suspicion is raised in the appropriate clinical context and appropriate microbiologic data is collected. One of the surrogate markers of fungal infection, galactomannan, is less reliable in patients with CGD than in others [23]. Patients with CGD often receive treatment empirically, and such treatment should incorporate agents effective against relevant pathogens, especially if a specific exposure is known.

Survival for patients with invasive aspergillosis who do not have CGD remains dismal, at 34%–42% [24]. In contrast, overall survival for patients with CGD who are infected with *Aspergillus* species other than *A. nidulans* is considerably higher [3, 6, 11]. Therapy for invasive aspergillosis has changed markedly over the past 10 years, from amphotericin derivatives to the azole derivatives (i.e., itraconazole, voriconazole, and posaconazole) [25, 26] and echinocandins [27–30]. Although the morbidity and mortality among patients with fungal infections who have CGD will likely continue to decrease, overwhelming exposure, such as through mulching, will continue to be problematic. Patients should be cautioned regarding such exposures.

Although CGD is a primary immunodeficiency, steroid therapy successfully controls inflammation [5, 6], particularly in the gastrointestinal and genitourinary tracts. Steroid use has also been reported in individuals with CGD and invasive aspergillosis [31–33]. The defect in inflammatory control is likely to be caused by inadequate degradation of inflammatory mediators, such as LTB₄, C5a, and fMLF [4]. Impaired metabolism of inflammatory mediators may play a role in the acute morbidity and mortality associated with invasive aspergillus disease and requires further evaluation in mouse models. Our current practice is to use high-dose steroid treatment (1 mg/kg per day

for 1 week, followed by gradual taper) early in the course of treatment to dampen the acute pulmonary inflammation in patients with CGD who present with pneumonitis after high-level symptomatic mulch exposure.

Acute invasive pulmonary aspergillosis in the absence of known iatrogenic deficiency or AIDS should prompt consideration of CGD, regardless of patient age, in the appropriate clinical context. Early and aggressive therapy, including therapy with antifungals and steroids, is crucial. Acute invasive *Aspergillus* pneumonia following mulch exposure may be pathognomonic for CGD.

Acknowledgments

Financial support. Division of Intramural Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health.

Potential conflicts of interest. All authors: no conflicts.

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HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
3430 Courthouse Drive ■ Ellicott City, Maryland 21043 ■ 410-313-2350

Valdis Lazdins, Director

www.howardcountymd.us

FAX 410-313-3467

TDD 410-313-2323

March 9, 2017

Robert Long, Jr.
Leslie Long
2701 Woodbine Road
Woodbine, MD 21797

RE: CE 17-012; 2700 Woodbine Road

Dear Mr. & Mrs. Long:

In response to your complaint received January 23, 2017 and January 27, 2017 concerning the above mentioned property, please be advised, a representative of this Division inspected the property on February 24, 2017. The inspection failed to reveal any violations of the regulations. The activity that is occurring on the property is accessory to the principle use (tree farm) per the definition of "Farming" found in Section 103.0.Farming.h. As no violations of the Howard County Zoning Regulations were observed, there is no cause for further action by this Department and the case is being closed.

If you are interested in reviewing the case file for more details, please submit a written request to me at 3430 Court House Drive Ellicott City, MD 21043 or via email to alarose@howardcountymd.gov.

Thank you for referring this matter to the Division of Public Service and Zoning Administration. If you have any questions, please contact me or Inspector Tamara Frank at (410) 313-2350.

Sincerely,

Anthony N. LaRose, Zoning Supervisor
Division of Public Service and
Zoning Administration

YOU HAVE THE RIGHT TO APPEAL THIS DECISION TO THE HOWARD COUNTY BOARD OF APPEALS HEARING EXAMINER WITHIN 30 DAYS. ADMINISTRATIVE APPEAL PETITIONS MAY BE OBTAINED FROM THE DEPARTMENT OF PLANNING AND ZONING, 3430 COURTHOUSE DRIVE, ELLICOTT CITY, MD (410) 313-2350 OR ONLINE AT WWW.HOWARDCOUNTYMD.GOV

ANL:taf



HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
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Valdis Lazdins, Director

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FAX 410-313-3467
TDD 410-313-2323

March 15, 2017

Robert Long, Jr.
Leslie Long
2701 Woodbine Road
Woodbine, MD 21797

RE: CE 17-012; 2700 Woodbine Road

Dear Mr. & Mrs. Long:

Please be advised, the letter closing the case was sent prematurely. **This case remains open,** and the issues raised in your complaints are still being studied by this Department. I apologize for any inconvenience.

If you are interested in reviewing the case file for more details, please submit a written request to me at 3430 Court House Drive Ellicott City, MD 21043 or via email to alarose@howardcountymd.gov.

Thank you for referring this matter to the Division of Public Service and Zoning Administration. If you have any questions, please contact me or Inspector Tamara Frank at (410) 313-2350.

Sincerely,

Anthony N. LaRose, Zoning Supervisor
Division of Public Service and
Zoning Administration

ANL:taf



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April 21, 2017

Robert & Leslie Long
2701 Woodbine Road
Woodbine, MD 21797

RE: CE 17-12
2700 Woodbine Road
Woodbine, MD 21797

Dear Mr. & Mrs. Long:

In response to your complaints received January 23, January 27 and March 6, 2017 concerning the business operating at 2700 Woodbine Road, a representative of this Division inspected the property on February 24, 2017. The inspection revealed the following violations of the Howard County Zoning Regulations:

Operation of a land clearing debris transfer station and/or sawmill, including the storage of related equipment and materials on RC (Rural Conservation) zoned property.

A zoning violation case was opened for this property and a Zoning Violation Notice was issued on April 20, 2017. Should the violations not be corrected in a timely manner, the County will pursue enforcement actions that include referring the case to the Howard County Hearing Examiner where civil fines of \$250 to \$500 per day may be imposed or referring the case to the Office of Law Seeking an injunction in the District Court.

Thank you for referring this matter to the Division of Public Service and Zoning Administration. If you have any questions concerning this case, please contact me at (410) 313-2350.

Sincerely,

Anthony N. LaRose,
Zoning Supervisor
Division of Public Service and
Zoning Administration

ANL:al.viol

CB-21

China Williams

3425 Huntsmans Run, Ellicott City

We are all in a Yogi Berra moment: it feels like deja-vu all over again. We get to argue all the same points and feel all the same frustrations and fears. Can we do District 5 residents a favor and stop making them drive all this way twice a year just to get irritated with each other?

There were opportunities last year to reach consensus, to create an additional revenue stream for agricultural land and to do it in an environmentally responsible way. Several health and safety amendments were proposed last year that would have minimized the risks of solid-waste processing. And each of those health and safety amendments was voted down.

Because the science was denied.

Because the health risks were dismissed.

Because protecting the groundwater and the air is inconvenient and expensive.

Luckily I ^{am a fighter} ~~like most causes~~, and I am here again to say that this bill badly needs health and safety controls. It is right to err on the side of caution. It is right to look to the industry's best practices. We are an overachieving county and we can overachieve in our efforts to protect the health and safety of our residents.

And when it comes to helping our farmers navigate a volatile industry and survive in an increasingly suburbanized county, we can do that too BUT this is not the way.

Let's start overachieving with these amendments:

- Reduce the activity's allowable acreage -- Currently the MDE allows 5000 square feet of mulch and compost for farming purposes. That is 0.1 acre. This bill proposes 5 acres. Studies have shown that water contamination occurred at solid-waste processing sites of a little more than 1 acre. Use that range as your guide to determine safe amounts near private wells.
- Increase setbacks -- The bill proposes setbacks from schools of only 500 feet. Protect the respiratory health of school children by increasing setbacks.
- Access to highways -- I was encouraged to see the change in CB-21 that required direct highway access for combined mulching and composting activities. Extend direct highway access to separate facilities too.
- Close the loopholes -- Add ownership requirements to keep farmland from becoming cheap industrial zones.
- Monitor and remediate -- Follow the guidelines proposed by other states and create a monitoring system for trace elements. Provide financial assistance or fines for remediation. In cases of contamination, this financial burden should not fall on the private well owner.

Thanks for your time and consideration.

Testimony of Theodore F. Mariani
Howard County Council
RE ZRA 183

16 April 2018

First I would like to address the conceptual understanding of the intent of the ZRA and where there appears to be a disconnect with the ZRA text. Note all references are to proposed Bill No. 21-2018 (ZRA 183).

1) If the intent of the ZRA is to preclude the use of ALPP and MALPF properties for commercial exploitation thru Mulch and Compost production and sale why does the limitation on sales expire when “ the outstanding purchase agreement “ expires. (Refer to Text of Bill Section 9E - Pg 18) Does this mean the limitation ceases when the bonds are paid in full ? If so this is a major flaw. Many of the properties in the program will soon be reaching the final two or three years on the bond payout schedule . Thus this restriction could expire as early as 2020. Further some land owners could have accepted a cash payment in lieu of the installment sale option. Are these sites not now covered? The same could be said for the MALPF properties.

Tying the limitation on use to just the tax exempt issue to preclude a commercial activity ignores the existence of the underlying easement (a covenant on the land) that precludes commercial or industrial use on any property in either the ALPP or MALPF program. The ALPP easements are in perpetuity and cannot be abridged. The MALPF easements are in perpetuity unless the land owner can prove that “farming” under the easement restrictions is no longer economically feasible.

Thus the wording in the text is puzzling and undermines the intent of the ZRA.

2) The limitation on sale of excess product must apply to both retail and commercial buyers. A 5% limitation is spelled out for retail sales but there is no mention of commercial sales.

(Section 4 A Pg 28) If the intent was a 100% prohibition on bulk commercial sales it should be clearly stated. Further the limitation on sales from ALPP and MALPF sites seems to be removed once the “outstanding purchase agreement” has expired. Further the method of controlling the level of sale of excess product (product not used exclusively on the farm where the product is produced) is vague. Will the County monitor this and if so how? The concept , proposed in prior versions of the text, of limiting the transport off the site to small non commercial tagged pick up trucks and farm tagged vehicles seems logical and easy to enforce. Why not reinsert this wording to assist monitoring of the activity.

3) Although the intent of the ZRA is to prohibit mulch and compost production on preservation parcels created through the cluster subdivision process , the text is not clear and subject to an evasion of the regulations. The only reference is in Section 4A , Pg 36 which is ambiguous at best.

4) Allowing the Hearing Examiner wide latitude in the reduction of setbacks from adjacent properties and the ability to allow unlimited retail sales from the NWWR site undermine the purpose and intent of the regulations.

The following comments address the specific sections of the proposed text:

Pg. 14 - #37 NWWR is listed as a matter of right in the M1 zone but where are the controls for Mulch production on these sites? Matter of Right NWWR can be defended for the M zones but there must be some level of control beyond the general "nuisance" clause .

Pg. 15- B4 M2 sites (See comments re M1 sites)

Pg. 17 - 9A Identifying a 3 acre composting site as "small" is misnomer especially if there is no limit on commercial sales.

Pg 18 - 9 C There is no mention of prohibition of commercial sales.

Pg. 18 - 9E Reporting should be annually not just once after the first two years.

Pg.18- 9E What is meaning of term "no outstanding purchase agreement" and what is its impact on the regulations.

Pg. 25 - O 2 H School setback refers only to a 500 foot setback from property lines .Some school buildings could be close to a property line . Thus 500 feet is not an adequate setback to safe guard the students and faculty . Why not impose an additional 1000 foot setback from any school building?

Pg. 26 - O 2 H Allowing the Hearing Examiner to drastically reduce setbacks beyond any reasonable level results in a severe of diminution of protection. As an example the 300 foot set back from an abutting residential property line could be reduced to only 50 feet.A 6 fold reduction . A more prudent approach would be to limit the reduction of the setback standards by not more than 20% which would result in a 240 foot setback from a property line and 400 feet from a residence.The regulations must be balanced so as to allow a farmer to produce compost and mulch and a resident the peaceful enjoyment of his home .This possible 20%

reduction would not apply to schools where there could be no reductions allowed.

Pg. 28- 4A The wording concerning the status of dedicated easements thru the cluster Subdivision process is not clear. It could be construed as allowing such parcels to be used for NWWR and Composting. I recommend that a clear and unambiguous statement be included that specifically prohibits NWWR and Composting on these parcels.

Pg. 28- 4 A Refers to a limitation for on site retail sales but there is no mention of prohibition of bulk commercial sales. Is this an oversight ?

Pg. 29- 4 H Setbacks. All of my comment regarding setbacks referenced to the text on Pg. 34 including the ability of the Hearing Examiner to drastically reduced setbacks, apply to this section.

The Council and Executive have made a great effort to balance the interests of all parties in this process but as shown in my comments a few clarifications and some modest refinements in the text would help in achieving a strong and enforceable regulation .

farmers to produce what they need for the farm itself. However, in CB21-2018, all of that language has been eliminated, watered down or made subject to major loopholes, thus opening the door to commercial operations.

Finally, it has been disappointing to see promises made by the winning candidates for County Council and County Exec in the 2014 election be broken. I have also witnessed professionals in the areas of health, fire and the environment be ignored, humiliated and in some cases threatened with the loss of their job while trying to inform DPZ and the Council on the health and safety issues of the current bill before us. This is local politics at its worst.

Given the extensive time spent by all, CB21-2018 should be tabled until loopholes are removed, agricultural preservation laws are maintained, and the health and safety of our residents fully considered.

John Allen, xxxxxxxxxxxxxxxx.

I am reading this testimony on behalf of Richard Lober.

From Mr. Lober: My name is Rick Lober and I have been involved in the working groups and discussions on mulch and composting for the last 4 years.

Proposed bill CB21-2018 negates almost all input by Howard County residents groups, has little to do with farming, and is a gross violation of our County and State Agricultural Preservation Programs.

These programs allow the County or State to buy the development rights of farms in order to preserve the farm for agricultural use ONLY - in perpetuity. Last year the County purchased development rights for a total of 112 acres at a cost of \$3.25 million dollars.

My understanding and discussion with many of the farmers who have become part of this program is that they are proud that they themselves, their parents or even grandparents made this commitment to maintain the farm as an agricultural activity for perpetuity.

However, the zoning regulations have been watered down over the years to allow commercial business owners to purchase these farms at a very low cost, place commercial operations on these farms, and reap the benefit of NO property taxes. Obviously much more desirable from a business standpoint than paying taxes on facilities that should be placed on M1/M2 lands.

Sponsors of CB21-2018 and DPZ personnel have given the false impression that commercial uses of ag preserve lands will not be allowed under this bill. However, while "retail sales" are limited to 5% of end product, there is no stipulation on "commercial sales" or large 18 wheel trucks entering or leaving the facility.

In addition, the bill defines ag preserve lands as only those that are continuing to receive payments from the County – not those that have been fully paid. This is a major loophole.

In the spring of 2017, assurances were made by County Council members and the County Executive that the bill would limit "commercial sales" to 5% for both mulch and compost, and restrict truck size on ag preservation lands. This clearly would stop commercial operators from using lands in ag preserve for industrial mulch and compost operations, thus allowing true



Sierra Club Howard County
Testimony in Opposition to CB21-2018
April 16, 2018

The Sierra Club policy is that farmland should be used for farming. Mulch and compost are used on farms, and they may be produced on farms from waste. Like any other commodity produced on a farm, these commodities should be saleable. However, no farm has enough waste, or needs enough mulch and compost, to justify industrial-scale processing onsite. At that scale, wood waste is shipped in by tractor trailer and mulch is shipped out by dump truck; everything from spoiled food to dead animals to manure is collected and decomposed for export as compost. In the industrial process, the raw materials are not produced on the land and the finished products are not used on the land. This is manufacturing, not farming.

Manufacturing should be done on land zoned for manufacturing, as this bill specifies. The processing setup should have dust filtration, leachate recovery, fire-fighting equipment, and whatever else is needed to safeguard the environment and the workers.

The land zoned for manufacturing is taxed at a rate that represents the cost to society of industrial pollution, noise, and heavy traffic, as well as the higher profits of factory production. Farmland, on the other hand, is subsidized with lower taxes and even payments for permanent preservation. Our zoning laws and our tax laws are meant to protect our countryside and our agricultural resources. To use farmland for industry seems like an exemption that serves only to allow an unfair business advantage to one industrialist over another.

To help farm-owners succeed at farming, we allow some conditional uses of farmland. These are side businesses that take up little land and add to, but don't replace, the agricultural income: a snowball stand, for example. Industrial manufacturing of mulch and compost is nothing like a snowball stand. A snowball stand doesn't occupy 3 acres of land, it doesn't require tractor-trailers to haul in the raw materials, it doesn't earn industrial profits and it doesn't endanger the health and safety of everyone around it.

We want to allow the small-scale agricultural production and sale of these commodities, but not allow large-scale industrial processing and sales. The difference is quantitative. We should be able to set limits by considering the volume of material collected and produced, the amount of land used, the amount of money earned, and the size and nature of the equipment used, to allow farmers to farm but prevent industrialists from exploiting our farmland for industry. The bill as currently written does not seem to close that loophole and therefore we must oppose it as written.

Joanne Heckman
Chair
Howard County Sierra Club

Lisa M. Markovitz

President, The People's Voice

3205 Corporate Court

Ellicott City MD 21042

CB21 Testimony – suggested amendments

Instead of talking about what has been discussed so very much already, I am going to use my time to bring you specific areas to please consider, that would hopefully address safety concerns, and still protect what the farmers need to do.

The contentious issues in this matter fall mostly upon the decisions about scale. What scale of composting and mulching reaches a level that is industrial, and doesn't belong outside industrial zones, or reaches a level of commercial that is too much for Ag Preserved parcels? Safety concerns, farm needs, economics, all the concerns seem to fall on this issue. How does one define "for the farm"?

To allow farmers to bring in whatever they need in materials to produce the compost and mulching they need for the farm, makes sense. To allow farmers to export what they produce from the farm's materials, or legitimate leftovers of supply, and even allow reasonable commercial profits on farm outputs, also makes sense. So, one has to look at importing and exporting levels here, together.

It could entail a large amount of import for a farm to bring in source materials to mulch, to use, what they need to use, on the farm. If a farm produces a lot from the farm resources and wants to sell, that could entail a high export amount. I think it is likely evidence of a larger commercial venture if a parcel is doing both.

The combination of high import and high export is a place to consider more restriction, taking into account annual averages for planning, etc. Although, any import restrictions should exempt small donations, so that businesses that pay to dump mulch in the land fill, could deliver for free to farms instead. Thank you to Joanne Heckman, for fleshing out that idea with me.

In Howard County, I believe we should go lower on the height piles than the State, of 9 feet, and the Fire regulations we have, of, I believe 6. If large farms have higher piles, and then likely the equipment needed to turn the piles, they may need less acreage for serving the farm, than smaller farms whose piles don't go that high, because they don't have the equipment to turn

higher piles. Thus, I like seeing an acreage restriction always combined with a maximum percentage as well.

In any event, Ag Preserve parcels should not be allowed to go to higher acreage of one to five, because of their location only. That may address community issues of what is nearby, and traffic concerns, but it does not address the economic issue of having more restriction on the commercial usage there, as is required of those parcels. Again, be sure acreage and percentage caps are always together.

If people don't comply, enforcement is a concern. Maybe having a trigger of some sort, that would cause the "bad apples" to have their property tax categorization changed to industrial would be a good repercussion, since a proliferation of mulching plants versus farms, needs to not be an incentive. Maybe limiting the allowances per geographic area could be considered at the higher ends of allowed processing levels.

I am concerned the Hearing Examiner is allowed to change the setbacks too much. In other zoning areas, I believe it is more frequently seen to have a 20% variance subjectivity, rather than the 50% plus in the current Bill.

As for composting, some extra safety measures that would still allow best practices used currently on farms, could include not importing in carcass raw materials, especially non-indigenous animal carcasses. I acknowledge I don't currently have information on why farmers would need to import non-indigenous animal carcasses.

This is a complex set of issues and I hope you can allay concerns but retain what farmers need who are using mulch and composting for the benefit of their actual farms, without creating an allowance, much less an incentive for high commercial or industrial enterprises to locate on farmland.

Thank you.

Howard County Council, On behalf of the Ho. Co. Farm Bureau Board, I would like to thank the Dept. Planning & Zoning, you the Council members and the members of the Mulch Task Force, for all the time and energy you all have put into constructing CB-21 2018. It is not all that we had hoped it would be, but it is something we can work with on our farms. We would like to see the Ag Land Preservation Parcels treated the same as the other parcels in the RR and the RC districts, after all we are the future of agriculture, we promised to not sell our development rights and nothing more. We need to know that the county is behind us, even though we may be the minority in numbers, we are mighty on impact, with the average farm selling over \$108,000 in sales each year. We also spend over \$105,000 each year, on production cost.

I would like to take this opportunity to defend the American Farmers, as well as the Ho. Co. Farmers. We have endured hardships that most people would not even begin to understand. We have been unjustifiably mistrusted, we have been misrepresented and pushed around by the majority for so long, it has become a way of life for us. Most of us quietly go about our days working hard, honestly and diligently, making sure that no one is injured and making sure the public is not put at risk in any way. We travel on roads in our neighborhoods with our machinery and products, that used to be empty, and now are full of cars, and bicycles, that have impatient, disrespectful drivers and peddlers, that just want us out of the way.

The 293 Howard Co. Farms have had to diversify their businesses, to maintain their business plans, so we can afford to pay the constantly rising cost of taxes, fuel, insurance, machinery and buildings. As well as to hire some extra labor that we need, to get us to the end of a day, that starts at daybreak and ends well after dark. From our farms that feed us, to the nurseries, greenhouses and landscaping operations that beautify our communities, Howard Co. has always championed our rural roots. We continue to lead the way with rapidly growing technology, we lead the way with women-owned or operated farms, we have some of the best grain, cattle and horse farms in the country. We put together common-sense strategies to support our suburban neighborhoods and our rural lifestyle.

The American Farmer and the Ho. Co. Farmer's will continue to survive even against all odds, because we have the will, the stamina and the integrity to do our best against all who may put challenges in front of us, whether fair or not, we will survive, because we are Ho. Co. Farmers, who are American Farmers.

Respectfully, Howie Feaga

President of the Howard County Farm Bureau for over 10 years now, with over 1400 total members in Howard County.

Thank You !!!!

Jeff Harp Testimony CB-21-2018

I have previously presented two investigation reports performed by the Suffolk County Department of Health Services in NY that identify groundwater contamination caused by mulch facilities.

Each year that passes more evidence is discovered. I have submitted as part of my testimony a copy of a cover letter and comments issued to the NY Dept. of Environmental Conservation by the Suffolk County Department of Health Services. These comments are specific and include recommendations to amend the State's solid waste regulations governing the composting of natural wood waste to prevent impacts to human health.

I will read three of these comments for everyone here tonight:

Comment 4

Unpackaged finished mulch product stored on a site need to be regulated, as storage of these materials has been shown to cause groundwater contamination. Unpackaged product stored on the Gardens/Long Island facility in Yaphank was observed to significantly impact groundwater quality and a nearby private well.

In comment 13, the Health Department comments on existing regulations regarding a 200-foot setback:

Comment 13.

What is the justification for the 200-foot distance from a potable well? Department of Health Services has monitoring wells located 1,500 feet downgradient of a management site that exhibits water quality impacts above standards. This language should be revised to indicate that regulated activities must not have the potential to impact potable water wells.

In comment 20 they discuss facility size:

Comment 20:

What is the justification for exempting sites less than 2 acres? Relatively small sites that are located upgradient of a private well could potentially cause an impact to that well. For example, a 1.1-acre site in Moretown, Vermont was determined to be a likely cause of elevated manganese in a private well, significantly above the drinking water standard.

Mulch facilities cause groundwater contamination. If you allow these facilities in groundwater use areas, then the consequence will be contamination and impact to resident's health. The responsibility of the County Council is to adequately review the scientific information provided from testimony.

I request that the council provide this cover letter and comments along with copies of the two NY investigation reports to the Howard County Health Department and any other environmental regulatory authority for an official response. Therefore, upon review, the council should provide the Health Department's response (opinions and conclusions) to the community as part of the public record for this proposed legislation CB-21-2018. This is a reasonable request and one that should have already been performed.

COUNTY OF SUFFOLK



STEVEN BELLONE
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

JAMES L. TOMARKEN, MD, MPH, MBA, MSW
Commissioner

September 13, 2016

Melissa Treers, P.E.
New York State Department of Environmental Conservation
Division of Materials Management
625 Broadway
Albany, NY 12233-7260

Subject: Suffolk County Department of Health Services' Comments on Proposed Amendments to NYSDEC Part 360 Regulations

Dear Ms. Treers:

The Suffolk County Department of Health Services (SCDHS) appreciates the opportunity to comment on the proposed amendments to the Part 360 Regulations for Solid Waste Management Facilities in New York State. SCDHS is optimistic that many of the proposed changes will have a positive impact on the environment with respect to solid waste activities in New York State, in particular the proposed new regulations regarding mulching facilities.

In order to further strengthen the proposed regulations, particularly with respect to the protection of groundwater, SCDHS recommends that additional changes be considered. These include requiring impermeable surfaces to prevent leachate and runoff impacts to groundwater from vegetative organic wastes, assistance to property owners with private wells impacted from solid waste management activities, and enhancing NYSDEC's ability to require monitoring groundwater where impacts from a site are suspected. Additionally, with respect to the use of on-site soils during redevelopment, some language clarification, additional options for developers and review of SCOs not reflecting background concentrations in Suffolk County are recommended. Attached are our specific comments for your consideration.

Thank you for taking the time to consider our comments. Should you have any questions, or if you would like to discuss our comments further, please call Walter Dawydiak at 631-852-5804.

Sincerely,

Christina Capobianco

Christina Capobianco, CPA
Deputy Commissioner

Cc: Carrie Gallagher, NYSDEC, Regional Director
Richard Clarkson, PE, NYSDEC, Chief, Facilities Section, Division of Materials Management
James L. Tomarken, MD, MPH, MBA, MSW, Commissioner, SCDHS
Walter Dawydiak, PE, Director, Division of Environmental Quality, SCDHS



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Suffolk County Department of Health Services

Comments on:

Part 360: Solid Waste Management Facilities; General Requirements

Use of On-Site Soils during Re-Development

Section 360.12 (Beneficial Use), of the current regulations, contains a statement which allows the use of soils from a property being converted to a realty subdivision as long as it is approved by the local health department (see below for current regulation).

360-1.15 Beneficial use.

(b) The following items are not considered solid waste for the purposes of this Part when used as described in this subdivision:

8) nonhazardous, contaminated soil which has been excavated as part of a construction project, other than a department-approved or undertaken inactive hazardous waste disposal site remediation program, and which is used as backfill for the same excavation or excavations containing similar contaminants at the same site. Excess materials on these projects are subject to the requirements of this Part. (Note: use of in-place and stockpiled soil from a site being converted to a realty subdivision, as defined by the Public Health Law [10 NYCRR 72], must be approved by the local health department.);

Under the proposed regulations such soils would be not be solid waste as long as they below Part 375 Unrestricted Soil Clean up Objectives (SCOs).

Comments:

1. Soils from redevelopment parcels do not appear to fall under the current or proposed definition of solid waste. Currently as written, a material is considered solid waste if it is discarded, i.e., "...spent, worthless, or in excess to the generator..." (Section 360.2 (a)(2)). In most cases these soils are used at the site and therefore not discarded. In addition, most of these cases presumably result from a lawful activity, such as the application of a pesticide, not from improper use or disposal of a material.

Recommendation: If it is NYSDEC's intent to regulate these soils as solid waste, the definition should be clearer.

2. If soils from redevelopment parcels are regulated as solid waste, is the intent to require off-site disposal of soils above unrestricted criteria? Using arsenic as an example, arsenic concentrations above unrestricted levels may be present across many acres of the property previously used for agricultural purposes and in many cases down to a foot of soil.

Recommendation: The SCDHS recommends that the regulations provide developers an option in which they can seek a case-specific beneficial use determination under Section 12 (d) by submitting a soil management plan to NYSDEC for approval.

3. For some contaminants, such as arsenic, the unrestricted use limits contained in Part 375 are based on rural upstate soil sampling and may not be appropriate for native soils on Long Island. The unrestricted soil clean up objective (SCO) for arsenic is 13 ppm. Data specific to Suffolk County indicates that background arsenic concentration in unimpacted, non-agricultural soils is approximately 4 ppm (unpublished 2002 SCDHS data; Sanok et al, 1995). Furthermore, previous soil management plans for redevelopment projects have been based on minimizing exposure to soil with arsenic above 4 ppm. Therefore, the proposed regulations would be less protective than past practices.

Recommendation: The relevance of SCO's that are not based on data reflecting background levels in Suffolk County and Long Island should be reviewed.

Comments on:
Proposed Part 360 (General Requirements)
Proposed Subpart Part 361-3 (Composting and Other Organics Processing Facilities)
Proposed Subpart 361-4 (Wood Debris and Yard Trimmings Processing Facilities)

General Comments

- 1) The NYSDEC Solid Waste Management Program should have a mechanism to provide assistance to private well users whose water quality is impacted by facilities performing solid waste activities. The NYSDEC Division of Environmental Remediation has such a mechanism (DER-24/ Assistance for Contaminated Water Supplies), along with a funding source. A companion mechanism for the solid waste program is needed.
- 2) There needs to be a clear, unequivocal statement that all facilities (*Exempt, Registered, and Permitted*) covered under Part 361-3 and Part 361-4 should expressly be prohibited from causing impacts to groundwater quality that exceed groundwater or drinking water standards. A similar statement expressly prohibiting impacts from dust and odors to surrounding properties should also be included.
- 3) The regulations should explicitly allow the NYSDEC to require groundwater monitoring wells if groundwater impacts are suspected at any type of facility (*Exempt, Registered and Permitted*).
- 4) Unpackaged finished product (such as compost and mulch products) stored on a site need to be regulated, as storage of these materials has been shown to cause groundwater contamination. Unpackaged composted material (product) stored on a site (Gardens/Long Island Compost facility in Yaphank) was observed to significantly impact groundwater quality and a nearby private well.
- 5) Section 361-3.5(7) requires that facilities handling particular types of material such as municipal solid waste, biosolids, septate, sludges, etc. must conduct activities such as waste storage, processing, leachate storage and product storage “on surfaces that minimize leachate release into the groundwater under the facility and the surrounding land surface...” This is presumably required due to concerns about these materials detrimentally impacting groundwater quality. Since the *Horseblock Road Investigation* report (July 2013), and the *Investigation of the Impacts to Groundwater Quality from Compost/Vegetative Organic Waste Management Facilities in Suffolk County* report (January 2016) both concluded that

vegetative organic waste management (VOWM) activities can cause significant impacts to groundwater quality, the requirement of the handling materials on surfaces that prevent leaching into groundwater should be expanded to VOWM facilities. The state of California is in the process of amending their regulations to require that certain types of composting activities be performed on impermeable surfaces for the protection of groundwater. The state of Illinois requires all landscape waste compost activities be performed on impermeable surfaces, or have an early detection groundwater monitoring system in place, due to concerns regarding detrimental impacts to groundwater. The state of Iowa requires that composting activities be performed on a low permeability base. It appears requiring VOWM activities be performed on a base that prevents impacts to groundwater from leachate and/or run-off would be consistent with current or pending requirements of other states. Due to the particular sensitivities involving contamination of groundwater designated as a sole source aquifer, consideration could be given to having the impermeable surface requirement for counties that have such a designation regarding their groundwater.

- 6) It is our understanding that a number of commercial VOWM sites accept and store animal manure at their sites to be provided as compost, or to mix with other composted material. It is also our understanding that this activity is not currently regulated. However, activities related to handling biosolids are regulated due such concerns as exposure to pathogens, potential groundwater and/or surface water impacts, etc. Since many of the same concerns regarding the handling of biosolids extend to the handling of animal manure, the regulation of animal manure at commercial VOWM sites should be considered to mitigate these concerns.

Specific Comments

Part 360

- 7) **Exempt facilities 360.14 (b)** *“A facility is no longer considered an exempt facility if it fails to comply with any operational conditions that apply or if the facility poses a potential adverse impact to public health and the environment. In either case, the facility must cease accepting waste and remove and properly dispose of all waste and products resulting from the processing of waste at the facility in accordance with department instructions.”*

An *Exempt* facility causing groundwater and/or surface water quality to exceed groundwater, drinking water or surface water standards, in an area with a designated sole source aquifer, should also be required to cease accepting waste.

- 8) **Permit application requirements and permit provisions 360.16 (c)(2)(iii)(b)** “the location of all public and private water wells, surface water bodies, roads, residences, public areas and buildings, including the identification of any buildings which are owned by the applicant or operator, on the property and within 800 feet of the perimeter of the property;”

This provision should be expanded to 360.14 (*Exempt Facilities*) and 360.15 (*Registered Facilities*). In addition, all public and private wells and surface water bodies beyond 800 feet that could potentially be impacted from site activity should also be identified.

- 9) If impacts to public or private wells are identified as a result of *Exempt, Registered or Permitted* site activities, the facility owner should be required to mitigate the impacts. Additionally, if such impacts are from an *Exempt* or *Registered* facility, the facility should be required to obtain a permit.
- 10) **Operating requirements 360.19 (b)(2)** “The owner or operator of a facility must operate the facility in a manner that minimizes the generation of leachate and does not allow any leachate to enter surface waters or groundwater except under the authority of a State Pollution Discharge Elimination System Permit.”

Since sections 361-3 and 361-4 of the proposed regulation states that “*Precipitation, surface water, and groundwater that come into contact with*” [the materials regulated under these sections] “*is not considered leachate*”, there must be language that expressly prohibits this contact water (run-off?) from entering surface waters and groundwater, consistent with what is required for leachate. Also, the term “run-off” needs to be expressly defined.

Part 361-3 Composting and Other Organic Processing Facilities

- 11) **Exempt facilities 361-3.2 (b)** “A composting or other organics processing facility that accepts no more than 3,000 cubic yards of yard trimmings, either processed or unprocessed, per year. This quantity does not include tree debris materials that are not intended for composting. For these facilities, precipitation, surface water, and groundwater that has come in contact with yard trimmings or the resultant product is not considered leachate; however, it must be managed within the site and must not enter a surface waterbody or a conveyance to a surface waterbody, or cause a violation of water quality standards promulgated in Part 750 of this Title.

What is the justification for exempting facilities processing less than 3,000 cubic yards of material per year? Are these facilities less likely to negatively impact the groundwater, neighbors or the environment?

The contact waters that results when precipitation, surface water, and groundwater comes into contact with yard trimmings or the resultant product, needs to be defined , see Comment #9.

The following should replace the second part of the third sentence, after the word "however":
"it [run-off?] must be managed within the site and must not enter a surface waterbody or a conveyance to a surface water body, to groundwater, or cause a violation of water quality standards promulgated in Part 750 of this Title, or Part 703, Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations."

12) **Registered facilities 361-3.3 (a)(1)** " ...precipitation, surface water, and groundwater that has come in contact with yard trimmings or the resultant compost is not considered leachate..."

See comment #9 above.

"The facility must have a written runoff plan that is acceptable to the department that outlines the methods that will be used to prevent runoff from entering and leaving the site and minimizing the movement of organic matter into the soil under the site."

The following should be added to the end of the above sentence, after the word "site": " *, or cause impacts to groundwater or surface waters that result in a violation of groundwater, drinking water, or surface water quality standards."*

13) **Registered facilities 361-3.3 (b)(7)** *"The activities regulated under this section must be at least 200 feet from the nearest surface water body, potable water well and state-regulated wetland, unless provisions are implemented to prevent leachate from leaving the boundaries of the site in a manner acceptable to the department."*

What is the justification for the 200 foot distance from a potable well? SCDHS has monitoring wells located 1,500 feet downgradient of a VOWM management site that exhibits water quality impacts above standards. This language should be revised to indicate that regulated activities must not have the potential to impact potable water wells, surface waters, etc.

14) **Permit application requirements 361-3.4 (b)(9)** *"The method used to control surface water run-off and to manage leachate, including the method for treatment or disposal of leachate generated.*

Is the “run-off” referenced here the same as the “contact” water discussed in comment #9?

- 15) **Design and operating requirements 361-3.5 (a)(1)** – *“Unlined compost areas located on soils with a coefficient of permeability greater than six inches per hour may require installation of groundwater monitoring wells or other monitoring devices and groundwater monitoring, as determined by the department.”*

What is the significance of 6 inches per hour, and what is the origin of this reference? Considering the sandy soils on Long Island, perhaps monitoring wells should be required at all permitted facilities in Nassau and Suffolk Counties.

- 16) **Design and operating requirements Section 361-3.5 (a)(6)** *“All Leachate must be collected and disposed in a manner approved by the department. For uncovered processing facilities, the leachate collection and treatment system must be adequate to manage the quantity of leachate generated at the facility based on rainfall intensity of one-hour duration and a 10–year return period.”*

Since section 361-3.5 (a) (5) states that precipitation coming into contact with yard trimmings or compost is not considered leachate, it is unclear why this section is referring to the quantity of leachate generated based upon an intensity of precipitation (“rainfall intensity of one-hour”).

This should also be required for the “run-off” discussed in comment #9.

- 17) **Design and operating requirements 361-3.5 (7)(iv)** *“For composting facilities, product storage beyond the 50-day detention time requirement is not required to occur on a low permeability surface. For products other than compost, the department will determine when the product need no longer be stored on a pad.”*

As previously indicated in Comment #4, the SCDHS has observed significant groundwater impacts from composted material (unpackaged product) stored on a site (Gardens/Long Island Compost facility in Yaphank) that detrimentally impacted a nearby private well. The storage of unpackaged product on facilities needs to be done in such a way as to prevent impacts to groundwater quality.

- 18) **Design and operating requirements 361-3.5 (9)** *“For uncovered processing facilities, the facility must be able to manage the quantity of leachate generated at the facility based on a rainfall intensity of one-hour duration and a 10-year return period.”*

Since section 361-3.5 (a) (5) states that precipitation coming into contact with yard trimmings or compost is not considered leachate, it is unclear why this section is referring to the quantity of leachate generated based upon an intensity of precipitation (“rainfall intensity of one-hour”).

19) **Design and operating requirements 361-3.5 (a)(13) (i)** “a facility without a pad and leachate collection system must maintain a minimum separation of 200 feet to a potable water well or surface water body and 25 feet to a drainage swale.”

See comment #12

Subpart 361-4 Wood Debris and Yard Trimmings Processing Facilities

20) **Exempt facilities 361-4.2 (b)** “A facility (including storage of incoming material and processed debris) that occupies no more than two acres...”

What is the justification for exempting sites less than 2 acres? Relatively small sites that are located upgradient of a private well could potentially cause an impact to that well. For example, a 1.1 acre compost site in Moretown Vermont was determined to be a likely cause of elevated manganese in a private well (significantly above the drinking water standard, see attached). Language should be added that a site occupying no more than two acres may be exempt, provided there is no potential to impact potable water wells.

21) **Registered Facilities 361-4.3(12)** “For the purposes of Part 360 and this Part, precipitation, surface water, and groundwater that has come in contact with debris and trimmings, both incoming and processed, is not considered leachate, but must be managed in a manner acceptable to the department. The facility must have a written runoff plan that is acceptable to the department that outlines the methods that will be used to prevent runoff from entering and leaving the site and to minimize the movement of organic matter into the soil at the site.”

With respect to the term “run-off”, see Comment #9. The following should be added to the end of the above sentence, after the word “site”: “, or cause impacts to groundwater or surface waters that result in a violation of groundwater, drinking water, or surface water quality standards.”

22) **Registered Facilities 361-4.3(14)** “The following buffer zones from processing and storage must be followed: 200 feet to a water well or surface water body...”

See Comment #12.

23) ***Design and operating requirements 361-4.5*** “...Also, the facility must have stormwater controls that minimize the potential for organic matter to reach groundwater and surface water resources.”

Is the “stormwater” referenced in this section the same as the “run-off” discussed in Comment #9? If not, the word “run-off” should be added to the sentence along with “stormwater”. Also, the following should be added to the end of the above sentence, after the word “resources”: “, or cause impacts to groundwater or surface waters that result in a violation of groundwater, drinking water, or surface water quality standards.”

Comments on:

Proposed Part 360 (General Requirements)

***Proposed Subpart Part 361-5 (Construction and Demolition Debris Processing Facilities)
and Proposed Part 364 (Waste Transporters)***

Apparent Conflict

Section 361-5.7 C&D debris tracking from registered and permitted facilities states:

(a) All material leaving a registered or permitted C&D debris processing facility, and any other material if required pursuant to a department-approved remedial plan, must be accompanied by a C&D debris tracking document prescribed by the department...

While, **SUBPART 364-2 EXEMPTIONS** states that the following transport is exempt from Part 364, including the requirement for a tracking document:

(b)(6) C&D debris and historic fill in quantities less than or equal to 10 cubic yards in any single shipment.

This introduces an apparent conflict. Would a C&D shipment of less than or equal to 10 cubic yards leaving one of the facilities described in Section 361-5.7(a) require a tracking document as required by that section or be exempt from the tracking document requirements as indicated in Part 364.

To whom it may concern,

I would like to express my interest and concern with the CB21-2018 proposal. I would like to start with the concern for industrial activity in a rural setting. I have lots of questions as to the purpose behind CB21-2018 and any potential loop holes that would allow contractors to mulch, compost, or perform any industrial activities on the farm land adjacent to my home. My concern stems from an environmental, health, safety, hazard, congestion, and aesthetic perspective. There are many questions surrounding all of these issues that need to be addressed fully.

For Contractors-

- Has a traffic study been conducted by the county to fully understand the impact on residents and roads?
- What is the cost analysis of using an existing farmland forever property vs. cost and impact to county residents?
- Who would be doing the hauling? The farmers would have to contract services....
- Is the county stepping up patrols to ensure MDOT regulations are being met even on our back country roads? Who will ensure these trucks meet safety and other DOT regulations (especially for safety-back-up alarms in working order; etc.)?
- What does a trucking route look like; ie. How many trucks per hour? How many loads per truck per day (How many trips per truck)? Weight of loads and impact on roads? Hours of operation.
- What will be the accountability of contracted services in the event an accident happens?
- What is their clean-up plan in the event there is a spill on the road?
- What is their plan for contaminants? What will the impact be on the water source both from a supply and demand outlook and from a contamination outlook? Will testing be done periodically and at whose expense?
- What about dust?
- What about noise control?
- What is the environmental impact? Has there been a study?
- What would be the impact on the Triadelphia Reservoir?
- What are the hazards that have already been identified-conceded?
- Impact on bus routes? These stops include Elementary (ages 5 to 11), Middle (11-13) High School (14-18). There are many bus stops within 1/4 of a mile of the entrance to the 3 farms off Howard Rd.
- What about safety? With 10 months of school bus operations and residential traffic daily.
- Fire hazard?
- Health hazard?
- Environmental hazard? What would be the effect of a mulching plant on the surrounding farms (livestock and crops)?
- Lastly, what are the potential benefits to the surrounding community at large?

The approximate average of property tax per home in this area of Howard County is over \$700.00 a month; running in the neighborhood of \$8,000-11,000 a year in property taxes.

Respectfully,

Kim Scanio

Good evening. My name is Leslie Bauer. I live at 3815 Howard Road in Dayton. So here we are again...talking about mulch and composting...I am here to testify in support of CB21-2018. As I sit here looking at this bill once again, and once again listen to all of the negative testimony, I am left to wonder about several things.

If mulch & compost are so bad, why, as the weather is getting warmer and I drive around Dayton, do I see all these residents placing mulch in their flower beds, around their houses, around their wells, potentially contaminating the ground, contaminating their water.

If mulch & compost are so bad, why is this mulch spread all around the schools? If these children aren't exposed to it enough at home, they will certainly get their fill of it while they are at school.

If mulch & compost are so bad, why does the University of Maryland Extension and Master Gardeners offer a gardening series geared to teens/tweens called "Vegetable Gardening and Composting"?

If mulch & compost are so bad, why did Howard Soil Conservation District, at their annual mid-winter ag meeting for local farmers, include in their program a presentation about composting by Justen Garrity of Veteran Compost?

It seems that everywhere I go there is someone that promotes the use of mulch and composting. So why do you want to prohibit the farmer from producing it? From providing it to consumers?

Minimize our carbon footprint...buy local....does this not apply to mulch?

Unlike the people who have offered testimony in opposition of CB21-2018, who claim to have 'knowledge' about farming, like the person last fall who called out one of my neighbors for moving a 'Natural Wood

Waste Recycling grinder across local roads in anticipation of setting up a composting operation - it was actually a grain combine being moved from one farm property to another in preparation for corn harvest - the people you see testifying here tonight in support of CB21-2018 are farmers and make their living farming. While there may not be many of us here, I consider these people my farm family, and I greatly value and respect each of them for the unique ability and talent that they bring to their own part of agriculture. Without hesitation, I would go to any one of them for their specific knowledge and advice on animals or crops, however I would know better then to ask them a medical, financial or legal opinion. I have a different set of trusted advisors and experts for that. When you want to know the truth about farming, go straight to the source and please ask a farmer. Don't rely on what others think they know about our business or the misleading information they have found on the internet.

I am sure that if I searched the internet enough, I could find the case that eating Captain Crunch for breakfast every morning can potentially cause cancer.

I hope that you will see through the rest of the noise in this room tonight and listen to what this group of farmers have to say about their future and their success. These people are the experts here tonight. They are people who truly are out-standing in the field, and I hope that you will vote in favor of CB21-2018. Thank you.

Leslie Bauer

Labauer5@verizon.net

443-812-1662

Leslie Collier Englehart
5200 Kalmia Dr.
Dayton, MD 21036

4/16/18

I have lived in Dayton for 37 years. I chose to live and raise my family here because I wanted clean water and clean air for them. I wanted them to know the peace of the countryside and to value this planet, you know, the one where all living things need clean air and. We have done our best to live lightly upon the earth, growing much of our own food, raising our chickens for eggs, minding our bee hives, planting trees. I buy our meat, Christmas trees, and pumpkins, and whatever produce I don't grow from our neighbors at TLV Farm. And, despite high property taxes, we plan to stay here in our retirement rather than migrate south . This is our home and we love it .

But greed has reared its ugly head and now certain of our super rich developer neighbors want to be super-super rich at the expense of our health, our peace, and possibly even our lives and the lives of our children. I want to make it absolutely clear that I do NOT include farmers in

this description. I refer to the developers who want even more money for themselves at the expense of their neighbors' health and safety.

I think certain questions have to be considered:

1) Are these developers' profits and tax savings more important than their neighbors' peace, property values, health, and even their lives?

2) When a child is killed trying to catch a school bus on Greenbridge Rd., (as has happened in this same situation in Virginia) or when children in the area become ill from breathing the particulates from an industrial operation, or when seniors who came here decades ago for the beauty and peace of the outdoors can no longer enjoy their gardens because being outdoors makes them sick, will those profiting from this business and the lower taxes from doing it on farmland step up and take moral and financial responsibility? I somehow doubt it.

Members of the County Council, please don't delude yourselves that the protections of CB-21-2018 are sufficient. Where there are loopholes to doing the right thing, the greedy will find them and exploit us all for their gain.

I call for amendments to this bill to close those loopholes. I call for total transparency from the County Council on any changes to those amendments. I call on my neighbors to support our county farmers by buying their meat and other produce. I call on my neighbors to stop using mulch. It is not a necessity, it is only a fashion. Preserve the farmland and preserve all of our health and safety.

And, Ms. Sigaty, if you wish to question my personal gardening habits as you did last time, I assure you again that all compost used in my garden is from my own property, or is from my neighbors' horses or sheep herd. Nothing I put in my garden or on my land is industrially produced (except perhaps grass seed occasionally).

For clarity to all, as we oppose the current zoning language in CB 21-2018 given the many obvious loopholes it creates, our Amendment 1 by default absolutely prohibits the following on all RR and RC parcels:

1. **No commercial sale of mulch or compost product**
2. **No three axle or tractor-trailer trucks on/off the farm with mulch or compost product**
3. **No industrial grade tub grinders, normally used to support typical industrial mulching facilities**
4. **No mulching on Howard County ag preserve or State of MD ag preserve farmland**
5. **No retail sales of mulch or compost product onsite**



Howard Soil Conservation District

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www.howardscd.org

April 16, 2018

Honorable Mary Kay Sigaty, Chair
Howard County Council
George Howard Building
3430 Court House Drive
Ellicott City, MD 21043

Re: Howard SCD Board of Supervisors support for Council Bill No. 21-2018

Dear Honorable Chair Sigaty and Howard County Council:

The Howard Soil Conservation District Board of Supervisors would like to thank County Councilmembers Mary Kay Sigaty and Greg Fox for proposing Council Bill 21-2018 to address mulching and composting facilities in Howard County. The HSCD Board of Supervisors generally supports the proposed bill, but would like to work with the County Council to improve some aspects of the proposed legislation. In particular, we believe the size limitations outlined in the Bill are unnecessarily restrictive and not based on sound science or operational realities. We also question why mulch and compost are not just considered as an Accessory Use under the topic of "Value-added processing of agricultural products", as outlined in the current regulations. This would allow these operations in the RC and RR Districts as well as on County Preservation Easements, and would categorize them more appropriately as agricultural products.

Since 1945 the Howard Soil Conservation District has helped the citizens of Howard County to protect their soil, water, and other natural resources. The Howard SCD staff provide technical assistance to farmers and landowners interested in establishing conservation practices on their properties. We help plan, design, survey, and oversee construction of a wide array of best management practices which farmers implement to protect our local water resources and restore the Chesapeake Bay. Our agency also serves a vital role in protecting water quality by reviewing sediment and erosion control plans for construction sites.

One of our core partners in our efforts to improve water quality in the county and protect the Chesapeake Bay is the USDA Natural Resource Conservation Service (NRCS). NRCS has practice standards for hundreds of conservation practices we use to protect our natural resources. We have provided 2 of these practice standards along with our testimony so that you can see their importance and relevance to agricultural operations. The two practice standards pertain to mulching and composting facilities, NRCS practice code 484 and 317, respectively. The standards describe the use of these two components as agricultural conservation practices and reinforce the importance of both for the enhancement of natural resources.

*Regarding mulching, here are a few purposes outlined for this practice – “conserve soil moisture, provide erosion control, suppress weed growth (which reduces the need for herbicides) facilitate the establishment of vegetative cover, and improve soil quality”.

* The NRCS definition of a composting facility is – “a facility to process raw manure or other raw organic by-products into biologically stable organic matter.” And its purpose is - “To reduce the pollution potential of organic agricultural wastes to surface and ground water.

*Both mulching and composting are valuable conservation practices and we don't want to see farmer's ability to implement these practices restricted.

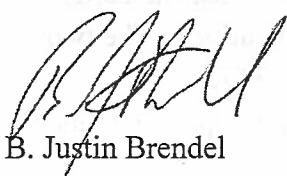
* The EPA says “composting is nature's way of recycling organic materials back into the soil in order for the cycle of life to continue.” And the County's own website encourages us to recycle as much as possible – what better way is there to do that than through composting and mulching?

In order to keep agriculture viable and protect the rural landscapes and aesthetic values that residents cherish, we have to provide opportunities for farmers to be profitable. Some of the limits outlined in this bill could restrict farmers' opportunities to remain profitable, and are contrary to the principles of economies of scale. Imagine if other business operations in Howard County were limited in this way. “Bring your business to Howard County, but once you become successful, or employ a certain number of people, or reach a certain size we want to put restrictions on you that will inhibit your profitability or cause you to go somewhere else”... It would be challenging to attract business with policies like that. Why is it always the farmers, the people who wake up before sunrise and toil all day to produce our food, fiber, etc. (and yes, sometimes mulch) that face the continuing regulatory battles that threaten their operations?

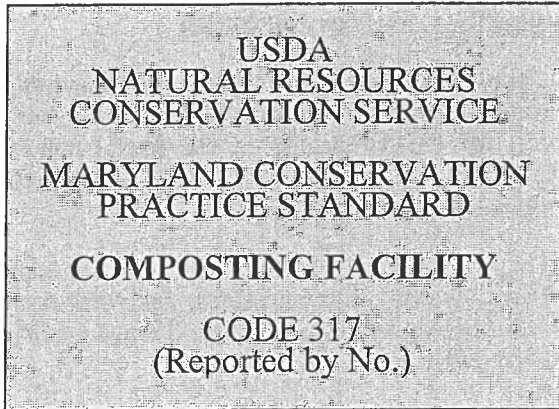
The Howard SCD has participated in the discussions surrounding mulching and composting and provided our technical advice throughout the process. We offer our continued support for these agricultural operations and are committed to providing technical guidance and conservation assistance to on-farm mulch and composting operations. The Howard SCD recognizes the need for agricultural operations to find viable alternative uses for a variety of byproducts that are a necessary part of food and fiber production. Many of our programs are designed to assist farmers in addressing their composting needs for manure, bedding, and other materials by turning them into valuable resources such as soil amendments. Rather than shipping these materials off to Virginia like we do with the County's trash, isn't it more responsible to work together to address some of our waste challenges here in our own County? Especially if it provides an opportunity for farmers to convert these materials into a valuable resource for improving soil health and productivity.

We thank the County Council for this opportunity to share our perspective on this issue, and we look forward to working with you to improve this legislation. Howard SCD will continue to offer our technical assistance and conservation expertise as this process moves forward.

Sincerely,



B. Justin Brendel
Chairman, Howard SCD
Board of Supervisors



DEFINITION

A facility to process raw manure or other raw organic by-products into biologically stable organic material.

PURPOSE

To reduce the pollution potential of organic agricultural wastes to surface and ground water.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies where:

1. Organic waste material is generated by agricultural production or processing;
2. A composting facility is a planned component of a waste management system;
3. The composting facility can be constructed, operated and maintained without polluting air or water resources;
4. There is a need to improve air quality by reducing emissions of odorous gases; and,
5. The facility is operated as a component of an agricultural management system.

CONSIDERATIONS

Odor Reduction

Develop an initial compost mix with a carbon to nitrogen ratio of at least 30:1 to reduce most offensive odors.

Minimize odors and nitrogen loss by selecting carbonaceous material that, when blended with the nitrogenous material provides a balance of nutrients and porous texture for aeration.

A chemical neutralizing agent should be used if structural components do not provide adequate odor reduction

Location

Composting facilities should be located as near to the source of organic material as practical, with consideration given to:

1. The location of neighboring dwellings and how they will be affected by prevailing winds;
2. Location of ingress and egress so as not to interfere with traffic flow or utilities;
3. Location of the access for easy loading and unloading of compost.
4. The location, layout, and design of the facilities should be compatible with the surrounding landscape. Consider existing landforms and vegetation, along with land shaping and vegetative plantings to minimize any adverse impact on visual resources.

Orientation and Wind Protection

If possible, orient windrows north and south to maximize solar warming, particularly in the colder counties. For unroofed static piles or windrows, consider using windbreaks to prevent compost from blowing away, to help prevent drying out, and to help maintain a warmer compost temperature in colder climates.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the [Natural Resources Conservation Service - Maryland](#) or visit the [electronic Field Office Technical Guide \(eFOTG\)](#).

CRITERIA

Facility Siting

Locate the composting facility where movement of odors toward neighbors will be minimized. Buffer areas, vegetative screens, and landscaping can help minimize negative effects of odors and visual resources.

Locate the facility a minimum 2 feet above the high water table. Soils that have a rapid permeability (>6.0 inches/hour) in the upper 40 inches of the soil profile require a concrete pad, clay, or synthetic liner. The compost area and access must be kept free of standing water and rutting.

Locate the composting facility outside the 100-year, 24-hour floodplain when possible. If the only practical alternative is to locate the facility within the 100-year floodplain, design the facility to protect from inundation and damage from the 25-year, 24-hour flood event. Divert runoff from outside drainage areas and maintain positive drainage away from the facility.

Construction activity within the 100-year floodplain requires permits or authorizations from the Maryland Department of the Environment and/or the U.S. Army Corps of Engineers. Obtain all applicable permits and authorizations prior to start of construction.

The area surrounding the composting facility will be subject to a high traffic load during loading, mixing, and unloading. Design these areas to meet the requirements of the Maryland conservation practice standard for Heavy Use Area Protection, Code 561.

Contaminated runoff from any composting facility without a roof must be controlled. This may be accomplished with distribution over a Wastewater Treatment Strip (Maryland conservation practice standard, Code 635) or transfer to a storage facility or other approved treatment method.

Leachate should not occur from any composting facility. If leachate does occur, this means the mix is too wet. Make adjustments to the composting mix by adding dry matter to eliminate leachate. Address this issue in the operation and maintenance plan.

Facility Type, Size, and Design

Type - Select the type of facility and composting method based on the availability of raw materials, the desired quality of the final compost, available equipment, manpower, management time, and available land.

Facility structural elements such as permanent bins, concrete walls and slabs, and roofs shall meet the requirements of Waste Storage Facility (MD-313).

Size and Design - Size all composting facilities in accordance with the Agricultural Waste Management Field Handbook, Part 651 Chapter 10, appropriate NRCS Design Worksheet(s), Extension Fact Sheet(s), or other methods as approved.

Dimension all structures to accommodate the equipment used for loading, unloading, and aeration.

Materials - Conform to the requirements of Maryland conservation practice standard for Waste Storage Structure, Code 313, for materials and structural design of composting facilities.

Composting

Compost Mix - Develop a compost mix that encourages aerobic microbial decomposition and minimizes nuisance odors. The "mix" for this system must be managed closely for the C:N ratio, moisture, and temperature.

Carbon-Nitrogen Ratio - The initial compost mix should result in a (C:N) ratio between 25:1 and 40:1. Compost with a greater carbon to nitrogen ratio can be used if nitrogen immobilization is not a concern.

Carbon Source - Choose a carbon source compatible with the organic by-product being composted. A good carbon source will mix well with the organic matter, provide air space for aerobic decomposition, and enhance aeration. Therefore, a good carbon source also acts as a good bulking agent.

Bulking Agents - Bulking agents are ingredients used to improve the structure and porosity of a mix. Bulking agents are typically dry and vary

in particle size (e.g., straw and sawdust), but could be old finished compost.

Add bulking agents to the mix as necessary to enhance aeration. The bulking material may be the carbon source used in the mix or a non-biodegradable material. If a non-biodegradable bulking material is used, provisions must be made for its salvage at the end of the composting period.

Moisture Content - The moisture range during the composting period should range from 40 to 65 percent (wet basis). Moisture contents above 65 percent invite fly production, anaerobic decomposition, and objectionable odors. Water may need to be added during the turning process if the compost is below 40% moisture. In general, the compost is too wet if water can be squeezed out and too dry if the mix doesn't feel moist to the touch.

Temperature Control - Manage the compost mix to reach and maintain the internal temperature for the duration of the composting process to meet the management goals.

When the management goal is to reduce pathogens, the compost temperature must be maintained above 130°F for a minimum of 5 cumulative days during the composting process. Monitoring internal temperatures is a good indicator of pathogen kill. A temperature log of the temperature profiles should be maintained.

Turning/Aeration - The frequency of turning/aeration should be appropriate for the composting method used to attain the desired amount of moisture removal and temperature control while maintaining aerobic degradation. Turning and aeration are functions of the composting process chosen and should follow the requirements of that system.

Pile Configuration - Windrows and static piles should be triangular to parabolic in cross-section and rounded on top to shed rainfall. Align windrows and static piles to avoid accumulation of precipitation. Maintain positive drainage parallel to the windrows.

Compost Period - Continue the composting process long enough for the compost mix to reach the stability level where it can be safely

stored without undesirable odors. It shall also possess the desired characteristics for its use, such as lack of noxious odor, desired moisture content, level of decomposition of original components and texture. The compost period shall involve primary and secondary composting as required to achieve these characteristics.

Test the finished compost as appropriate to assure that the required stabilization has been reached.

Use of Finished Compost - Follow the requirements of the Maryland conservation practice standards for Nutrient Management, Code 590, and Waste Utilization, Code 633, for land application.

Federal, State, and Local Laws

Adhere to all federal, state, and local laws, rules and regulations for composting and utilization of the compost. It is the responsibility of the producer to secure any permits necessary to install structures and for properly managing the facility on a daily basis.

Safety

Incorporate safety and personal protection features and practices into the facility design and operation as appropriate, to minimize the occurrence of equipment hazards and biological agents during the composting process. These features may include warning signs, fences, ladders, ropes, bars, rails, and other safety devices to protect humans and livestock.

SPECIFICATIONS

Plans and specifications for the composting facility shall be in keeping with this standard and describe the requirements for applying the practice to achieve its intended purpose.

All phases of construction shall comply with the appropriate standards and specifications for the work items including, but not restricted to:

The contractor should furnish a certification statement that he has constructed/assembled any non-NRCS designed structure in accordance with the requirements/specifications of the designer/manufacturer.

OPERATION AND MAINTENANCE

Develop an operation and maintenance plan prior to design approval that is consistent with the purposes of the practice, its intended life, safety requirements, and the criteria for its operation.

Manage the compost piles for temperature, odors, moisture, and oxygen, as appropriate. Make adjustments throughout the composting period to insure proper composting processes.

Closely monitor temperatures above 165°F. Take action immediately to cool piles that have reached temperatures above 185°F.

The operation and maintenance plan shall state that composting is a biological process. It requires a combination of art and science for success. Hence, the operation may need to undergo some trial and error in the start-up of a new composting facility.

The plan must include but is not limited to the following:

1. Objective of the landowner or operator and the operation requirements;
2. The mix proportions, moisture requirements, and materials used;
3. The sizing requirements;

4. The timing of the composting process including loading, unloading, and turning or aeration of the material;
5. Temperature monitoring requirements, including a temperature log;
6. What must be done to prevent leachate problems;
7. Biosecurity requirements;
8. Safety requirements;
9. If available, frequently encountered mistakes in composting and brief "fix it" scenarios or a reference to;
10. References of sources of information or a reference to where they can be found.

SUPPORTING DATA AND DOCUMENTATION

Field Data and Survey Notes

The following is a list of the minimum data needed:

1. System plan sketch;
2. Topographic survey of the site showing building locations, elevations at structure location and location of dwellings, wells, floodplains, etc.;
3. Soils exploration showing seasonal high water table;
4. Operator data used to size the facility and documentation of the landowners decisions.

Design Data

Record on appropriate engineering paper. For guidance on the preparation of engineering plans see chapter 5 of the EFH, Part 650. The following is a list of the minimum required design data:

1. Comprehensive Nutrient Management Plan or Waste Management Plan including the Operation and Maintenance Plan;
2. Plan view including, location map, all system components, material and construction specifications;
3. Construction drawings, and component details;
4. Structure sizing computations;
5. Structure and component design and details;
6. Area grading plan;
7. Quantities estimate;
8. Job Class on plan;
9. Details of foundation drainage, when required;

10. Planting plan. This must meet the criteria, specifications, and documentation requirements of the Maryland conservation practice standard, Critical Area Planting, Code 342.

Construction Check Data/As-built

Record on survey notepaper, SCS-ENG-28, or other appropriate engineering paper. Survey data will be plotted on plans in red. The following is a list of minimum data needed for As-Built:

1. Documentation of site visits on CPA-6. Include the date, who performed the inspection, specifics as to what was inspected, all alternatives discussed, and decisions made and by whom;
2. Actual dimensions of installed structure;
3. Verification of adequate foundation preparation;
4. Documentation of installation of foundation drainage;
5. Documentation of reinforcing steel and proper concrete installation, if applicable;
6. Condition of precast panels, if applicable;
7. Statement on seeding and fencing;
8. Final quantities and documentation for quantity changes, and materials certification;
9. Sign and date checknotes and plans by someone with appropriate approval authority. Include statement that practice meets or exceeds plans and NRCS practice standards.

REFERENCES

1. Arkansas Cooperative Extension Service. *Basic Operating Procedures*. University of Arkansas, 2201 Brookwood Drive, P.O. Box 391, Little Rock, Arkansas 72203. (501) 671-2000.
2. Arkansas Cooperative Extension Service. *Suggested Composter Size*. University of Arkansas, 2201 Brookwood Drive, P.O. Box 391, Little Rock, Arkansas 72203. (501) 671-2000.
3. Delaware Cooperative Extension Service, Delaware *Two-Stage Composter*; Construction Details, 1988.
4. USDA, Natural Resources Conservation Service. *Animal Waste Management Field Handbook*
5. USDA Natural Resources Conservation Service, *National Engineering Handbook*, Part 650
6. USDA, Natural Resources Conservation Service, *Maryland Field Office Technical Guide, Section IV, Standards and Specifications*;
7. USDA Natural Resources Conservation Service, *National Handbook of Conservation Practices*;

NATURAL RESOURCES CONSERVATION SERVICE
 CONSERVATION PRACTICE STANDARD

MULCHING

(Ac.)

CODE 484

DEFINITION

Applying plant residues or other suitable materials produced off site, to the land surface.

PURPOSE

- Conserve soil moisture
- Reduce energy use associated with irrigation
- Moderate soil temperature
- Provide erosion control
- Suppress weed growth
- Facilitate the establishment of vegetative cover
- Improve soil quality
- Reduce airborne particulates

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to all lands where mulches are needed. This practice may be used alone or in combination with other practices.

CRITERIA

General Criteria Applicable to All Purposes

The selection of mulching materials will depend primarily on site conditions and the material's availability. Mulch materials shall consist of natural and/or artificial materials that are environmentally safe such as plant residue, wood bark or chips, gravel, plastic, fabric, rice hulls, or other equivalent materials of sufficient dimension (depth or thickness) and durability to achieve the intended purpose for the required time period.

Prior to mulching, the soil surface shall be prepared in order to achieve the desired purpose.

The mulch material shall be evenly applied and, if necessary, anchored to the soil. Tackifiers, emulsions, pinning, netting, crimping or other acceptable methods of anchoring will be used if needed to hold the mulch in place for specified periods.

As a minimum, manufactured mulches shall be applied according to the manufacturer's specifications.

Mulching operations shall comply with federal, state, and/or local laws and regulations during the installation, operation, and maintenance of this practice.

Mulch material shall be relatively free of disease, pesticides, chemicals, noxious weed seeds, and other pests and pathogens.

Additional Criteria to Conserve Soil Moisture and/or Reduce Energy Use Associated with Irrigation

Mulch materials applied to the soil surface shall provide at least 60 percent surface cover to reduce potential evaporation.

Additional Criteria to Moderate Soil Temperature

Mulch materials shall be selected and applied to obtain 100 percent coverage over the area treated. The material shall be of a significant thickness to persist for the period required for the temperature modification.

Additional Criteria to Provide Erosion Control

When mulching with cereal grain straw or grass hay, apply at a rate to achieve a minimum 70 percent ground cover. Mulch rate shall be determined using current erosion prediction technology to reach the soil erosion objective.

When mulching with wood products such as wood chips, bark, or shavings or other wood

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact your Natural Resources Conservation Service State Office or visit the Field Office Technical Guide.

materials, apply a minimum 2-inch thickness.

When mulching with gravel or other inorganic material apply a minimum 2 inch thickness and shall consist of pieces 0.75 to 2 inches in diameter.

Additional Criteria to Suppress Weed Growth

The thickness of mulch will be determined by the size of the plant being mulched. Mulches shall be kept clear of the stems of plants where disease is likely to occur. Mulches applied around growing plants or prior to weed seedling development shall have 100 percent ground cover. Thickness of the mulch shall be adequate to prevent emergence of targeted weeds. Plastic mulches may be used.

Additional Criteria to Establish Vegetative Cover

Mulch shall be applied at a rate that achieves a minimum of 70 percent ground cover to provide protection from erosion and runoff and yet allow adequate light and air penetration to the seedbed to ensure proper germination and emergence.

Additional Criteria to Improve Soil Quality

Apply mulch materials with a carbon to nitrogen ratio (C:N) less than 30 to 1 so that soil nitrogen is not immobilized by soil biota. Do not apply mulch with C:N less than 20:1 to an area of designed flow in watercourses.

Use the Soil Conditioning Index to assess soil quality impacts and to determine the type and rate of the mulching material.

Additional Criteria to Reduce Airborne Particulate Matter from Wind Erosion

Mulch rate shall be determined using current wind erosion prediction technology to reach the soil erosion (movement of particulates offsite) objective.

CONSIDERATIONS

Evaluate the effects of mulching on evaporation, infiltration, and runoff. Mulch material may affect microbial activity in the soil surface, increase infiltration, and decrease runoff, erosion, and evaporation. The temperature of the surface runoff may also be lowered.

Mulch material used to conserve soil moisture should be applied prior to moisture loss. Prior to mulching, ensure soil under shallow rooted

crops is moist, as these crops require a constant supply of moisture.

Mulch materials with a high water holding capacity and/or high impermeability to water droplets may adversely affect the water needs of plants.

Fine textured mulches (e.g. rice hulls) which allow less oxygen penetration than coarser materials should be no thicker than 2 inches.

Organic materials with C:N ratios of less than 20:1 will release nitrate-nitrogen which could cause water quality impairments.

Mulching may also provide habitat for beneficial insect and provide pest suppression.

Clear and infra-red transmissible (IRT) plastics have the greatest warming potential. They are transparent to incoming radiation and trap the longer wavelengths radiating from the soil. Black mulches are limited to warming soils by conduction only and are less effective.

Clear mulches allow profuse weed growth and may negate the benefits of soil warming. Black mulches provide effective weed control. Wavelength selective (IRT) plastic provides the soil warming characteristics of clear mulch with the weed control ability of black mulch.

Low permeability mulches (e.g. Plastic) may increase concentrated flow and erosion on un-mulched areas.

Consider potential toxic allelopathic effects that mulch material may have on other organisms. Animal and plant pest species may be incompatible with the site.

Consider the potential for increased pathogenic activity within the applied mulch material.

Keep mulch 3 to 6 inches away from plant stems and crowns to prevent disease and pest problems. Additional weed control may be needed around the plant base area.

Deep mulch provides nesting habitat for ground-burrowing rodents that can chew extensively on tree trunks and/or tree roots. Light mulch applied after the first cold weather may prevent rodents from nesting.

Some mulch material may adversely affect aquatic environments through changes in water chemistry or as waterborne debris. Consider placing mulch in locations that minimizes these risks.

Consider potential effects of soil physical and chemical properties. Refer to soil survey data as a preliminary planning tool for assessment of areas. Consult the Web Soil Survey at: <http://websoilsurvey.nrcs.usda.gov/app/> to obtain Soil Properties and Qualities information.

PLANS AND SPECIFICATIONS

Specifications shall be prepared for each site and purpose and recorded using approved specification sheets, job sheets, technical notes, narrative statements in the conservation plan, or other acceptable documentation.

Documentation shall include:

- Purpose of the Mulch
- Type of mulch material used
- The percent cover and/or thickness of mulch material
- Timing of application
- Site preparation
- Listing of netting, tackifiers, or method of anchoring, and
- Operation and maintenance.

OPERATION AND MAINTENANCE

Mulched areas will be periodically inspected, and mulch shall be reinstalled or repaired as needed to accomplish the intended purpose.

Evaluate the effectiveness of the mulch (application, amount of cover provided, durability, etc.) and adjust the management or type of mulch to better meet the intended purpose(s).

Removal or incorporation of mulch materials shall be consistent with the intended purpose and site conditions.

Operation of equipment near and on the site shall not compromise the intended purpose of the mulch.

Prevent or repair any fire damage to the mulch material.

Properly collect and dispose of artificial mulch material after intended use.

Monitor and control undesirable weeds in mulched areas.

REFERENCES

- Agriculture and Agri-Food Canada. 2000. Plastic mulches for commercial vegetable production. Canada-Saskatchewan Irrigation Diversification Centre. Outlook, Saskatchewan.
- Renard, K.G., G.R. Foster, G.A. Weesies, D.K. McCool, and D.C. Yoder, Coordinators. 1997. Predicting soil erosion by water: A guide to conservation planning with the Revised Universal Soil Loss Equation (RUSLE). U.S. Department of Agriculture, Agriculture Handbook No. 703.
- Shaffer, M.J., and W.E. Larson (ed.). 1987. NTRM, a soil-crop simulation model for nitrogen, tillage and crop residue management. USDA Conserv. Res. Rep. 34-1. USDA-ARS.
- Toy, T.J., and G.R. Foster. (Ed.) 1998. Guidelines for the use of the Revised Universal Soil Loss Equation (RUSLE) Version 1.06 on mined lands, construction sites, and reclaimed lands. USDI, OSMR.
- USDA, NRCS. 2011. National Agronomy Manual. 190-V, 4th Ed. Washington, D.C.

Guide to Mulch Materials, Rates and Uses

Mulch Materials	Quality Standards	Application Rates		Depth of Application	
		per 1,000 sq. ft.	per Acre		
Wood chips or shavings	Green or air dried. Free from objectionable coarse materials.	500-900 lbs.	6 tons	2" - 7"	Has about th application a less N/ton (1 Resistant to Decomposes
Wood Fiber Cellulose (Partly digested wood fibers)	Dyed green. No growth inhibiting factors. Air-dried 30% fibers 3.7 mm or longer.	30 lbs.	1500 lbs.		When applie critical areas Apply with hy required. Par Use only on and during o Curosol or er hold mulch o
Leaves	No plastic bags, or household debris.	375-700 lbs.	8-15 tons	3" - 6"	Must be spre delivery. Mus next growing be done with Incorporator with chisel pl should' ev state a. JR
Cornstalks, shredded or chopped	Air-dried, shredded into 8" to 12" lengths	150-300 lbs.	4-6 tons		Effective for slow to deco mulch on crc blowing.
Grass clippings	Unbagged, free of debris; minimal odor	700-1400 lbs.	15-30 tons	1" - 2"	Obtain neces spread withir Incorporate v crop establish

Guide to Mulch Materials, Rates and Uses

Mulch Materials	Quality Standards	Application Rates		Depth of Application	
		per 1,000 sq. ft.	per Acre		
Filter Fabrics	Woven or Spun	Variable			
Straw or coconut fiber or combination	Photodegradable plastic net on one or two sides	most are 6.5 ft x 83.5 ft.	81 rolls		Designed to water flow in 60 sq. yds per
Gravel, Crushed Stone or Slag	Washed; Size 2B or 3A - 1-1/2"	9 cu. Yds.		3:	Excellent mulch around wood Use 2B when Frequently used better weed
Hay or Straw	Air-dried; free of undesirable seeds & coarse materials	90-100 lbs. (2-3 bales)	2 T (100-120 Bales)	Cover about 90% of surface	Use straw with for more than wind blowing the most common material. Best germinating :
Peat Moss	Dried, compressed free of coarse	200-400 cu. ft.	1/2-1 T	2" - 4"	Most effective ornamentals unless kept Excellent mulch
Jute Twisted Yarn	Undyed, unbleached plain weave Warp 78 ends/yd 60-90 lbs/roll	48" x 50 yds or 48"x 75 yds.			Use without as in manufa

Guide to Mulch Materials, Rates and Uses					
Mulch Materials	Quality Standards	Application Rates		Depth of Application	
		per 1,000 sq. ft.	per Acre		
Excelsior Wood Fiber Mats	Interlocking web of excelsior fibers with photodegradable plastic netting	48" x 100" 2 sided plastic 48" x 180" 1 sided plastic			Use without for seed estab per manufac. Approx. 72 lb plastic on top plastic for ce
Glass Fiber	1/4" thick, 7/16" diameter holes on 1" centers; 56 lb. rolls.	72" x 30 yds.			Use without with T bars a specification
Plastic	2-4 mils	Variable			Use black fo moisture cor control for sr

Mulch Anchoring Guide Specification Sheet		
Anchoring Method or Material	Kind Of Mulch To Be Anchored	How
Mechanical		
Asphalt spray emulsion	Compost, wood chips wood shaving, hay or straw	Apply with suitable s following rates: asph use 200 gal/ac, on le asphalt: (rapid, medi gallons per sq/yd.; 4
Wood cellulose fiber	Hay or straw	Apply with hydro see mulching. Use 750 lb Some products cont
Pick chain	Hay or straw manure compost	Use on slopes steep slopes with suitable
Mulch anchoring tool or disk	Hay or straw, manure/mostly straw	Set in straight positio with suitable power e should be "tucked" in
Chemical	Hay or straw	Apply Terra Tack AF water or Aerospray7 manufacturer's instr during rain. A of ot temperature hig. er t

NRCS, MD

April 2012

Mulch Anchoring Guide Specification Sheet

Anchoring Method or Material	Kind Of Mulch To Be Anchored	How
Manual		
Peg and twine	Hay or straw	After mulching, divid approx. 1 sq.yd. Driv within 2" to 3" of soil surface by stretching crisscross pattern or around each peg wit pegs flush with soil v maintenance is plan
Mulch netting	Hay or straw	Staple the light-weig or plastic nettings to manufacturer's recor biodegradable. Most for foot traffic.
Soil & Stones	Plastic	Plow a single furrow covered with plastic, into the furrow and p plastic. Use stones t other places as need
Cut-in	Hay or straw	Cut mulch into soil s spade. Make cuts in apart. Most success soils.

CB 21-2018 Candidate Positions and 2018 Election Guide	
County Executive	
[D] - Dr. Calvin Ball	See Note Below
X [D] - Harry Dunbar	Should be confined to M1 & M2
[R] - Allan H. Kittleman	See Note Below
County Council District 001	
X [R] - Raj Kathuria	Opposed to approval until all aspects of Public Safety are addressed. <ul style="list-style-type: none"> Public safety should be the most important job of a public official. Promotes best use of farmland and the rights of farmers to make and sustain a respectable living off the land.
X [D] - Elizabeth "Liz" Walsh	Opposed to CB 21-2018 - Would Vote No
[D] - Jon Weinstein	See Note Below
County Council District 002	
[D] - Opel Jones	TBD
[R] - John Liao	TBD
County Council District 003	
X [D] - Hiruy Hadgu	Opposed to CB21-2018 for the following reasons: <ul style="list-style-type: none"> The county government has not enforced existing regulations as evidenced by the numerous documented violations. The Planning Board does not have the technical competency to take an informed vote on this complex zoning regulation. The health and safety concerns raised by the community have not been addressed. See Also: Reaction to the Proposed CB60-2017
[D] - Steven F. Hunt	TBD
[D] - Greg Jennings	TBD
[D] - Christiana Rigby	TBD
County Council District 004	
[D] - Deb Jung	TBD
X [R] - Lisa Kim	Opposed to CB21-2018 for the following reasons: <ul style="list-style-type: none"> We cannot make a determination as to what the real needs are as we have not enforced the existing code and regulations. Therefore we cannot assess legislation properly or fully. We need to revamp existing supporting codes and regulations to aid in the enforcement efforts of the current codes and regulations related to mulching. There is a lack of knowledge in the County government in multiple regards on such a complicated issue and therefore no reliable decision can be made in relation to a bill or legislation.
X [D] - Ian Moller-Knudsen	Opposed to CB21-2018
[D] - Janet Siddiqui	TBD
County Council District 005	
[R] - Jim Walsh	TBD
X [D] - China Williams	Current legislation lacks adequate health and safety controls to allow industrial mulching and composting on agricultural land. I would like to see less acreage, greater setbacks (especially from schools), direct highway access only, and a monitoring and remediation plan if groundwater is contaminated.
X [R] - David Yungmann	Cap commercial sales similar to retail sales cap to discourage full commercial intent.
Notes	
Note: No candidate opposes mulch and/or compost production for use on the farm.	
County Executive and Council Positions on Prior Legislation - CB 60-2017	
Note: County Executive Allan H. Kittleman sponsored previous legislation.	
Note: Council Member Mary Kay Sigaty sponsored CB 60-2017 and CB 21-2018. Is a candidate for MD State Senate District 12.	
Note: Council Member Greg Fox sponsored CB 60-2017 and CB 21-2018	
Note: Council Member Jon Weinstein voted in favor of CB 60-2017.	
Note: Council Member Dr. Calvin Ball voted "No" on previous legislation.	
Note: Council Member Jennifer Terrasa voted "No" on previous legislation. Is a candidate for MD Delegate District 13	

CB 21-2018, In Favor Of

Keith Ohlinger
2790 Florence Road
Woodbine, MD 21797

Dear Howard County Council:

Four years ago or so back when CB 20-2014 was occurring, Council President Sigaty asked me if I was ready to serve. As one of your county farmers, I said "Yes, I will do anything I can to help." I have done the absolute best that I can and I do not know what else I have to offer. I have invited all of you and your staff to our farm and shared it with you freely. I have answered any questions, and discussed how the layers and interwoven regulations apply and impact us and the proposed legislation.

Our farm is the sum total of my life's efforts, it is my life's work. It will not function without compost; it will not function without ample local supply and local access to wood chips. I will not be able to expand and grow the business without them. I have had numerous experts in soil health, water quality, air quality, compost, regenerative agriculture, and ecology to name a few. Our soil health continues to improve, our water remains clean, and our pastures, animals and people are all healthy.

Please take my actions and dedication to this issue and our farm into consideration as you make your decision. I ask you to please support this bill; our farm cannot survive without it.

Very Truly Yours,

Keith Ohlinger

As a side note, up to this point I have discouraged the girls getting involved with this issue. I felt they should be sheltered from the nastiness as long as possible. However, as they so aptly pointed out to me today this is their farm too and they have every right to protect it (From their mouths to God's ears). I humbly submit my two beautiful daughter's personal testimony in support of this bill, Dani is 6, and Gabby is 10.

Dear Agriculture People,

I have heard from my dad that people do not want farmers to have compost. They do not understand that farmers need compost to have healthier soil. Please do not listen to them. We need things like compost to farm, and we can not risk having less-successful farms because we took away some of their materials. So please, do not listen to them. Thank you.

- Gabby O.
(Keith's Daughter)

Dear people if you don't STOP your
beautiful Earth will be destroyed!

And ~~don't~~ pote compost in
the soil or your Earth will be
destroyed!

Kid

from Dani

Keith's

Dear Council Members,

Raymond James Becraft,
3075 Florence Rd
Woodbine, Md

I was born in this area and I have been a farmer all my life here. I grow things that humans and animals eat. This passed year I have been sick with pneumonia and serious trouble. When Oakridge Farms - Bonner was in operation, I was always sick, I am just getting better these past months. I have 2 farms off 94 near Bonner. As a farmer I oppose this bill and I oppose every version that has come before CB 21-2018 and this bill is worse than all the others that have come before. This area we live in is

form country, NO large Trucks, NO really loud noises
Please. If Bomen is allowed to start running
again we will all suffer.

Dear Council Members,

Raymond James Beckett,
3075 Florence Rd
Woodbine, Md

I was born in this area and I have been a farmer all my life here. I grow things that humans and animals eat. This past year I have been sick with pneumonia and sinus trouble. When Cambridge Farms - Bonner was in operation, I was always sick, I am just getting better these past months. I have 2 farms off 94 near Bonner. As a farmer I oppose this bill and I oppose every version that has come before CB 21-2018 and this bill is worse than all the others that have come before. This area we live in is

from country, No large trucks, No really loud noises

please. If Bonner is allowed to start running

again we will all suffer.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land and Materials Administration • Resource Management Program
1800 Washington Boulevard • Suite 610 • Baltimore Maryland 21230-1719
410-537-3314 • 800-633-6101 x3314 • www.mde.maryland.gov/composting

Waste Diversion Infrastructure Recommendations Discussion

March 19, 2018

Talking Points

- **Improve food donation infrastructure.**
 - Obtain better data on existing infrastructure and gaps.
 - Consider financial incentives to expand infrastructure (e.g. increase refrigerated storage capacity; improve transportation networks; etc.).
 - Increase outreach and education on food donation opportunities.
 - Increase education on and consistent implementation of public health regulations regarding food donation.
 - Consider whether enhancements to existing liability protections and tax credits for donors are needed to improve participation in food donation programs.
- **Obtain status of the current infrastructure and practices for the use of food scraps as animal feed to better assess needs and challenges. – Discuss in future meeting**
 - Coordinate with MDA, MFB, haulers, and other agriculture groups to learn about current practices.
- **Consider whether the existing disposal ban on yard trimmings should be strengthened.**
 - Capacity largely already exists to accommodate the remaining yard trimmings, but is an expansion of the ban necessary given that most yard trimmings are already recycled (i.e. is this where we should target efforts?)
- **Encourage expanded composting capacity in underserved areas of the State.**
 - Consider financial incentives for additional processing and collection capacity.
 - Provide siting assistance.
 - Integrate composting and anaerobic digestion into community economic development initiatives.
 - Assist operators in upgrading existing yard trimmings composting facilities to process source separated food scraps.
- **Increase anaerobic digestion capacity.**
 - Identify markets for digestate.
 - Clarify regulatory requirements.
 - Explore the possibility of co-digestion at wastewater treatment plants.
- **Build small-scale composting infrastructure where larger facilities do not exist or are not economically feasible.**
 - Provide composting training and outreach on:
 - On-site residential (backyard) composting
 - Composting at community gardens and urban farms
 - On-farm composting
 - Composting on site at LFSGs

House Bill 171 – Department of the Environment – Yard Waste, Food Residuals, and Other Organic Materials Diversion and Infrastructure

Study Group Meeting Agenda

Date: Monday, March 19, 2018; 10 A.M.- 12 P.M.

Place: Maryland Department of the Environment
Lobby Conference Rooms
1800 Washington Boulevard
Baltimore, MD 21230

- 10:00-10:10 • Welcome and Introductions - *All*
• Approval of minutes from January 24, 2018 meeting - *All*
- 10:10-10:40 • Current status of organics diversion infrastructure in Maryland- *MDE*
- 10:40-11:30 • Discussion of methods to address infrastructure needs – *Workgroup members*

Suggested discussion topics include methods to:

- Improve food donation infrastructure;
- Better assess needs and challenges for the use of food scraps as animal feed;
- Consider whether the existing disposal ban on yard trimmings should be strengthened;
- Encourage expanded composting capacity in underserved areas of the State;
- Increase anaerobic digestion capacity; and
- Build small-scale composting infrastructure where larger facilities do not exist or are not economically feasible.

11:30-11:50 Comments from non-workgroup members – *Interested parties*

11:50-12:00 Wrap up and next steps - *MDE*

April 16,2018

Dear Council Members,

I saw the other day an email sent as submission of testimony to you on CB21-2018. It was written by James Nickel,dated April 6,2018 subject: CB 21-2018 Testimony- Preponderance of Negative Impact. I would like to add to that testimony with some additional evidence that was signed by twenty-six residents of Woodbine by the Howard Board of Health which can be found at this link " Itr from Woodbine to Howard County Board of Health". There are many more residents that requested to sign the letter but were unable to do so because of the time frame.

Also,attached are copies of letters written by private individuals who experienced the negative impact from mulch manufacture by Oak Ridge/Recycled Green.

My sincere appreciation goes to the members responsible for halting this "The Bad Actor's" latest obnoxious and detrimental operation. The neighbor's have breathed a sigh of relief after the many years of torture. Our air is fresh and clean. The loud thunderous noise, the beeping of the industrial equipment, the sometime 26 tractor trailer/dump trucks per hour,noxious odors, the cloud of dust and mud on the road has ceased. This type of activity has started as early as 5:00am. and has gone on after midnight 7 days per week.

People are enjoying the Peace and a Healthy Environment once again. The normal sound of farm equipment NOT industrial track hoes,front end loaders,trucks and tub or large horizontal grinders, is music to our ears.

As far as CB21 is concerned,Ms.Sigaty and Mr.Fox, you have opened up the opportunity to allow this operation to restart again,even adding a sawmill to confirm it. It is inconscionable that you would do this to citizens as you have been well informed about the adverse effects to the Woodbine residents. Should this bill pass you are accountable.

As a farmer and nurse,my suggestion would be to satisfy both sides and only allow compost/mulch on one acre "For the Farm,By the Farm,On the Farm". No retail sale,no wholesale,no removal of material once it enters the site. If a farmer has extra that's a plus. It can always be used at a later time.I know of a neighbor who has had approximately a half an acre as witnessed over the last twenty years and one landscaper/nurseryman with maybe the same.The majority of bonifide farmers are not interested in mulch and composting food waste.

Preserved farms are not intended to be dumps. Our easements clearly state no industrial, no commercial, no residential use. Anything other than this is a violation. Tax-payers should not be defrauded. Corporations should not benefit from purchasing farms and paying reduced agricultural property tax. No Tax dodging even if they are your friend.

Respectfully,

Leslie Long

**Sunnyside
2701 Woodbine Rd.
Woodbine, Md. 21797**

11/30/2017

Howard County Board of Health
8930 Stanford Blvd., Columbia, MD 21045

Carlessia Hussein, DrPH, RN - Chair
Darryl Burnett, MPH, CHES
Kevin Carlson, M.D.
Sheri Lewis, MPH
Paul Nagy, PhD
Deborah R Rivkin
Robert Sheesley
Sue Song, PhD
Gary A. Stewart

Re: Complaints of Health and Safety Violations (Title 12, Howard County Code of Ordinances) against Erich Bonner and Oak Ridge Farm, 2700 Woodbine Road, Woodbine, MD 21797

Chairperson Hussein and Members of the Howard County Board of Health;

We undersigned residents hereby file formal complaints against Erich Bonner and Oak Ridge Farm with the Howard County Board of Health citing ongoing and long-standing health and safety violations of Title 12, Howard County Code of Ordinances, specifically violations of County regulations of "Air Pollution" and maintaining a "Nuisance" at 2700 Woodbine Road, Woodbine, MD 21797.

Oak Ridge Farm operates an unapproved¹ wood waste recycling operation at Woodbine Road which has been found to be in violation of numerous regulations, previously fined and ordered shut down by Howard County Government for zoning violations (copy attached) and received violation notices from the Maryland Department of the Environment (copy attached) and acknowledged being in violation by Consent Order as well³. It is located in hazardous and noxious proximity to our properties and dwellings. By continuing its operations even after being found in violation by multiple agencies, Oak Ridge Farm displays willful disregard for the health and well-being of nearby residents, which we contend clearly constitutes both a serious health hazard and a public nuisance.

¹ <http://www.baltimoresun.com/news/maryland/howard/lisbon-fulton/ph-woodbine-mulching-decision-story.html>

² See Numerous DPZ, MDE Violation Notices, attached.

³ Also, per Consent Order, "IT IS HEREBY AGREED by and between Oak Ridge Farms, LLC, and the Department of Planning and Zoning and so ORDERED this day of January 12, 2015, that:

1. Respondent Oak Ridge Farms, LLC, acknowledges being in violation of the Howard County Zoning Regulations as cited in the Civil Citations on or about February 6, 2014.
2. Respondent Oak Ridge Farms, LLC, agrees to pay a one thousand dollar fine.
3. Respondent Oak Ridge Farms, LLC, agrees that it will not manufacture mulch, including importing, grinding or exporting feedstock until such time as the Howard County Zoning Regulations are changed, if they are changed.

Of particular import, recent written testimony to the Howard County Council by Dr. Victor E. Velculescu, M.D., Ph.D.⁴, a noted oncologist, cites the following specific eight health concerns associated with wood dust, carcinogens and infectious agents and their affects upon residents⁵, summarized herein:

1. *Wood dust is a carcinogen. This is well-established as has been indicated by many national and international organizations, including the American Cancer Society, WHO, CDC, and the Department of Health and Human Services. Importantly, wood dust is a carcinogen regardless of whether it arises from wood cutting occupations or from composting activities, as indicated in the 14th Report on Carcinogens from the US Department of Health and Human Services*
2. *Mulching and composting have health risks due to infectious agents.*
3. *Composting can lead to toxic and carcinogenic substances.*
4. *Dust from mulch and composting can lead to inflammatory effects.*
5. *Animal mortality and waste in composting can contaminate groundwater.*
6. *Composting facilities have health effects on nearby communities.*
7. *Infectious agents from mulch and composting facilities can pose health risks at significant distances.*
8. *Individuals living near composting sites have exposures similar to those in high risk occupations.*

As provided for under the Howard County Code of Ordinances, Title 12, Health and Social Services⁶, we complainants hereby advise the Board that the ongoing serious violations of health and safety laws at the referenced site are inflicting damage to residents' health, livestock, crops and which interfere with the proper use and enjoyment of our properties. Further, we seek the Board's urgent action to immediately abate said dangerous and noxious violations.

Complaints

As a basis of request for these actions, we submit the following complaints against Erich Bonner and Oak Ridge Farm. They are not an exhaustive list of complaints and we reserve the right to enter additional claims in the future as needs may dictate.

Complaint 1 - Air Pollution (As per Section 12-108)

Oak Ridge Farm is the source of significant and nearly continuous noxious and harmful particulate airborne matter⁷ produced by the trucking, grinding, turning, and composting of wood mulch products and other materials. This ongoing air polluting activity is documented in years of written complaints and

⁴ Dr. Victor E Velculescu, M.D., Ph.D., Professor of Oncology and Pathology, Co-Director of Cancer Biology, Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine

⁵https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0ahUKEwi_7_jWmchXAhWFGuwkHRPxDi0QFgqrMAE&url=http%3A%2F%2Foc.howardcountymd.gov%2FLinkClick.aspx%3Ffileticket%3DH7OSwuomuyY%253D%26portaid%3D0&usq=AOvVaw0uo7J4lbYWO-MvLH_mIK_D

⁶ https://library.municode.com/md/howard_county/codes/code_of_ordinances?nodeId=HOCOCO_TIT12HESOSE

⁷ "(c) Particulate Matter: (1) Emissions. A person may not cause or permit air polluting emissions from an unconfined source without taking reasonable precautions to prevent particulate matter from becoming airborne."

testimony to the Howard County Council, Howard County Planning Board and the Howard County Department of Planning and Zoning (DPZ), and as such are an undisputable matter of public record⁸.

It has been well documented by many health professionals⁹ and environmental scientists that:

- a. Wood dust and associated airborne pathogens in particulate emissions are injurious to human life, plant life, animal life,
- b. Such particulate emissions can be reasonably expected to continue to be injurious to same unless abated immediately. There is ample evidence that industrial sized NWWR and composting facilities can result in
- c. increased health risks due to a variety of factors,¹⁰ including infectious agents such as fungi and bacteria, wood dust which has allergic, mucosal, and cancer promoting effects and volatile organic compounds and endotoxins that have toxic and carcinogenic effects.
- d. Further the Board is hereby advised that the presence of the above has unreasonably interfered with the proper use and enjoyment of the complainant's properties.
- e. Similar facilities have been shut down in other areas due to documented health hazards and odors such as this typical example.¹¹

Complaint 2 – Nuisance (As per Section 12-108)

Oak Ridge Farm is the source of significant and nearly continuous noxious and harmful odors, leachates, rodents, insects, and noises produced by the trucking, grinding, turning, and composting of wood mulch products and other materials. This ongoing nuisance is documented in years of numerous written complaints and testimony to the Howard County Council, Howard County Planning Board and the Howard County Department of Planning and Zoning (DPZ).

We assert the following in our complaint of maintaining a Nuisance at the referenced property:

- a. That the Owner maintains the property in a condition that poses an actual or potential threat to health.
- b. That the Owner allows activities to take place on the property which pose an actual or potential threat to health.
- c. That the Owner allows activities to take place on the property which interfere with the complainant's proper use or enjoyment of their property.

⁸ <https://www.youtube.com/watch?v=FtrOTX2hJAc>

⁹ Eg. - Dr. Victor E. Velculescu, M.D., Ph.D., Professor of Oncology and Pathology, Co-Director of Cancer Biology, Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine, and others

¹⁰ "These include infectious agents such as fungi and bacteria, wood dust which has allergic, mucosal, and cancer promoting effects and volatile organic compounds and endotoxins that have toxic and carcinogenic effects. A review of the medical literature indicates dozens of examples of scientific articles throughout the world related to infectious agents in mulch, primarily leading to acute fungal pneumonia. Fungal spores can travel large distances - on the order of miles - and are of particular risk to immune compromised individuals, including children and the elderly. Many such infections can be lethal: one recent study found that of patients with fulminant mulch pneumonitis, half died due to infection and underlying kidney disease.", Report of Concerned Citizens of the Mulch/Composting Task Force, Appendix B, March 15, 2015

¹¹ Eg. - <http://www.phoenixnewtimes.com/news/phoenix-mulch-plant-ordered-shut-down-following-pollution-complaints-7711994>

- d. That the Owner's operation of a nuisance includes significant risk of water pollution and potential contaminated well water supplies.¹²
- e. That the Owner operates a facility that emits particulates and emissions from an unconfined source¹³ that escape into the atmosphere, thereby creating noxious and hazardous conditions which prevent the reasonable use of residents' properties and present undue health and safety Board of Health shall schedule a hearing within ten days of the filing of the appeal and shall issue its decision within 15 days of the hearing.

Requested Actions of the Board of Health

Based on the above, we complainants urgently request the following:

- a. That findings and declarations of "Air Pollution" and of "Nuisance"¹⁴ be issued by the Board against the referenced facility and Owner, followed by exercising all available means afforded by the Statute to cause said operation to cease and desist immediately, and that all other "Remedies"¹⁵ provided for under Section 12-112 of the County Code of Ordinances be utilized to achieve same, and,
- b. that appropriate "fines"¹⁶ be levied against Oak Ridge Farm for inflicting damages (even in the face of receiving multiple violations) against residents concerning health, property, plants, animals and the inability to reasonably enjoy our outdoor properties for many years, and,
- c. that "abatement" and/or "lien"¹⁷ provisions be applied to the nuisance condition, if needed, to bring about legal compliance and mitigate the public health hazard and permanently terminate the nuisance condition.

¹² Manganese (Mn) concentrations have been observed at 13,000 ppb from one wood compost facility in Howard County, MD. Background levels of Mn in groundwater from the same area only average 20 ppb. Observed Mn contamination associated with wood waste composting facilities is two orders of magnitude greater than the allowable risk levels identified. In Howard County, there exists a shallow water table perched above fractured rock aquifers. Metals such as Mn are released from the soil by leachates from these types of facilities and can enter the water table, potentially feeding adjacent drinking water wells. Mn exposure is associated with neurological disorders such as dyslexia, autism and has been linked to low birth weight. Long-term exposure of elevated Mn causes symptoms similar to Parkinson's disease.

¹³ Unconfined source means an article, machine, equipment or other apparatus that causes air polluting emissions which are not enclosed in a stack, duct, hood, flue or other conduit but which escape into the atmosphere through openings such as doors, vents, windows, ill-fitting closures, or poorly maintained equipment. Howard County Code of Ordinances, 12-108, "Unconfined Source"

¹⁴ "Declaration of Nuisance. If the Health Officer believes that a nuisance condition exists as defined in subsection (a) above, the Health Officer may declare the existence of a nuisance."

¹⁵ "Sec. 12.112. - Remedies - (a) Civil Penalties: (1) The Health Officer may enforce the provisions of this subtitle using civil penalties pursuant to title 24, "Civil Penalties," of the Howard County Code." Further, that "The Health Officer may bring action in court to enforce compliance with an order to comply with this subtitle or to correct a nuisance."

¹⁶ "Upon conviction under this subsection a person is subject to a fine: (i) For a first offense up to \$100.00; (ii) For a second offense up to 500.00; and (iii) For a third or subsequent offense up to 1,000.00."

¹⁷ Abatement; Lien. If a person refuses or fails to comply with the provisions of this subtitle or to correct a nuisance within the time specified in the notice of violation, the Health Officer may request the courts for permission to enter the property and to abate the violation or correct the nuisance. If the Health Officer abates the violation or corrects the nuisance, the Officer shall bill the person owning or renting the property for the cost of the work, plus administrative costs. If the person owning or renting the property refuses to pay the bill, the County shall place a lien upon the property for the amount of the bill. The lien shall be enforceable in the same manner as a lien for unpaid County taxes.

We would appreciate the opportunity to meet with the Board of Health to discuss the complaints, answer any questions, and provide any additional information that the Board may wish to obtain. We have additional information documenting personal health related maladies of persons and livestock and loss of enjoyment of our properties as a result of what we contend is the direct result of the operations of the referenced facility and Owner.

Respectfully Submitted,

Complainant's

Signature	Printed Name	Address	
<i>[Signature]</i>	Rob Long	2701 WOODBINE RD	243-900-9
<i>[Signature]</i>	Leslie Long	WOODBINE, MD. 21797	
<i>[Signature]</i>	Michelle O'Connell	2997 Florence Rd. Woodbine, 21797	
<i>[Signature]</i>	James Scott Watson	2997 FLORENCE Rd Woodbine, 21797	
<i>[Signature]</i>	Stewart Hahn	2910 Woodbine Rd Woodbine, MD 21797	
<i>[Signature]</i>	John Secun	25 Hariland Hill Rd, Brookville 20833	
<i>[Signature]</i>	Kristin Secun	85 Havin Mill Rd Brookville 20833	833
<i>[Signature]</i>	Fred Secun	" "	"
<i>[Signature]</i>	Shannon Hamley	4100 Loop Rd Mt Airy MD 21771	
<i>[Signature]</i>	Donna Owen	2445 Seneca Chapel Rd Woodbine	
<i>[Signature]</i>	Molly Shaw	3015 Woodbine Rd Woodbine MD 21797	
<i>[Signature]</i>	George Van Dyke	PO Box 77 Woodbine 21797 "3710"	
<i>[Signature]</i>	Jo Anne Horan	17494 Timberdeigh Way Woodbine, Md. 21797	
<i>[Signature]</i>	Gale MacRisen	7501 Timber Lake Rd Woodbine, Md. 21797	
<i>[Signature]</i>	Kimberly Lowery	2910 Woodbine Rd Woodbine MD 21797	

renting the property refuses to pay the bill, the County shall place a lien upon the property for the amount of the bill. The lien shall be enforceable in the same manner as a lien for unpaid County taxes.

In summary, we complainants would appreciate the opportunity to meet with the Board of Health to answer any questions and provide any additional information that the Board may wish to obtain. We have numerous written complaints and other evidence documenting both personal health related maladies and loss of enjoyment of our properties as a result of what we contend is the direct result of the operations of the referenced facility and Owner.

Respectfully Submitted,

Complainants Names and Addresses:

Frank [unclear]	Karen Skaggs	8409 Glade Ct Columbia Md 21046
Debbie [unclear]	Heather Brandon	8409 Glade Ct Columbia MD 21046
Stacy [unclear]	Jennifer King Deuber	2705 Woodbine Road Woodbine MD 21797
Michelle [unclear]	Sabina Ondra	8707 Lillian St Ellwood City MD 21030
Vicki [unclear]	Kathryn [unclear]	11543 Simpson Rd Chestertown MD 21620
Raymond [unclear]	[unclear]	3875 Florence Rd Woodbine
Bonny [unclear]	[unclear]	[unclear]
Crystal [unclear]	Crystal Bauman	16415 Old Frederick Rd Suitzville MD 21782
Kelly [unclear]	Kelly Michael	3800 Manor Lane Clifton Heights MD 21117
Barbara [unclear]	Dorine Mieveg	2703 Woodbine Rd Woodbine MD 21797
Elizabeth [unclear]	Sigfredo Mieveg	Woodbine MD 21797

Jeni King Deuber @gmail.com - Jennifer King Deuber

I recently moved to Woodbine Rd in November. Last summer the increase of noise due to the mulching had subsided. Now as of January 2017 the noise from the mulching not only has increased but gotten much worse and extends much later into the night. My reason for moving to this area is because I love the tranquility of the agricultural farmland. Not only do I live here, I also have a horse that I ride here. My horse can be very reactive on a normal quiet day. This added noise and distraction can spook my horse as well as the other riders that ride through the farm and trails regularly. However, with the increase of speed, and noise of the trucks our safety is at risk. The trucks are destroying the quiet neighborhood. I have noticed increased dust and traffic to what used to be a quiet neighborhood. At times the noise sounds like things are exploding. I want to keep the farmland the way it used to be without the mulching industry located in Woodbine.

Bernie Nelson

Sept. 6 2014

To whom it may Concern

In April of 2013 I moved into a small house, located on the farm owned by Rob and Leslie Long. The cottage was advertised as private cottage in a quiet, serene setting, surrounded by horse pastures.

And it appeared to be exactly that.

Until I was awakened one morning by the LOUD BANGING of, what sounded like, trash truck dumpsters, a sound you generally hear in the city NOT in the RURAL COUNTRYSIDE of Howard or Carroll counties! Not only did the dumpster sound awaken me in the morning but it continued at intervals for the entire day. Accompanying the loud dumpster like banging there was also a DEEP, LOUD, RESONATING and CONTINUOUS pounding that would at times vibrate in my house and rattle the windows!

In addition CONSTANT traffic from Tractor Trailers that were obviously NOT just traveling on the road but coming and going from a specific (and close location)

I questioned my landlord Rob Long about the noise and he explained about the Mulching Operation taking place on the property by Recycled Green directly across Woodbine Road from the Long farm, and less than a mile from my rented cottage.

The noise and disruption, as well as potentially toxic stench has continued for over the 16 months that I have lived there.

Because of everything stated above I am now experiencing headaches, allergy and respiratory symptoms, and feel FORCED to move for my health. I believe these issues are linked to the Operations at Recycled Green Products, as I have always lived on farms or in rural settings and never had these issues before!

I would like to add that after some research (their website) I found that Recycled Green is a CORPORATION dedicated to the removal, receipt and recycling of organic waste. An operation such as this has NO place in AG and residential type communities.

Maggie Brant
2703 Woodbine Road
Woodbine, Md. 21797

Maggie Brant

To whom it may concern

Regarding Recycled Greens affect on the surrounding farm areas on Woodbine Road and Florence Road in particular the Horse Farm owned by Rob and Leslie Long.

In April 2012 I rented the small 200+ year old cottage located on the horse farm owned by Rob and Leslie Long. I lived there for 1 and 1/2 years, from April 2012 and leaving October 2014.

As I stated in an earlier letter the reason for choosing that particular location was the fact that it was:

- (1) The house was positioned in the center of the pastures of a working horse farm**
- (2) It is Idyllic and pastoral**
- (3) Believed to be strictly Zoned Agriculture/Residential**
- (4) Away from INDUSTRIAL type businesses**

I have lived on or near farms nearly all my adult life therefore I recognize and welcome the customary smells sights, sounds and required activities that accompany life on or near a farm of any type whether it is a crop farm, dairy or livestock operation, family or viable horse enterprise. I recognize the movement, and toil, of machinery used to ensure continued existence of farms comparable to the Long Farm.

Such as:

Tractors-Mowers-Backhoes-Skidloaders-Chain Saws-Weed Wackers-Leaf Blowers-ATV to name a few.

Larger pieces of equipments such as Combines, and Balers are used TWO times a year on the Long farm.

On any working farm you will find a workshop that is needed and used to repair the above pieces of machinery.

On a farm with any livestock you will find a manure pile, on the Long Farm it was out of sight far from the houses.

On a Horse Farm you will find horse trailers parked in a readily available location.

I MOVED BECAUSE OF RECYCLED GREEN INDUSTRIAL business on Woodbine Road!!!

THE EXTREMELY AUDIBLE and OLFACTORY ASSAULT of their THUNDEROUS GRINDERS that DRONED ON, FOR HOURS DAILY, VIBRATING THE GROUND, and the INFILTRATING STENCH from the ROTTING, MOLDY, roots and tree debris that was being hauled in MULTIPLE TIMES DAILY by NOISY SEMI TRUCKS, dumping their loads with a REVERBERATING profound METAL THUMPING (think HUGE trash dumpsters being emptied ALL DAY LONG!!)

It is imperceptive to imply:

That these noises were imagined or exaggerated

**That the noises and smells were because of the farm
itself**

**That the reason I moved from the cottage was based
on any reasons that had to do with house, the workings
of the farm, or the Longs personally.**

**I have said before that an operation such as Recycled
Green does not belong in a Farm Preservation area.
These people take pride in their property, and are
where they are for quiet idyllic landscape,
Recycled Green has taken that from me, by forcing me
to move, and is taking it from the landowners by
stealing their solitude.**

Sincerely

Maggie Brant

**Maggie Brant
PO Box 391
Woodbine < Md 21797**

17479 Timberleigh Way
Woodbine, MD 21797
January 29, 2015

Dear Mr. Long,

This will serve as a follow-up to our conversation of last week concerning the now-suspended industrial mulching activity on the Oak Ridge property at the southwest corner of Florence Road and Woodbine Road.

During the course of our talk you asked if I or any of my neighbors had experienced any issues related to that operation, and on reflection I did mention that there had been occasional comments regarding the very strong odor of fresh mulch on Timberleigh, especially after a bout of wet weather or a large summer thunderstorm. At the time, no one seemed to know from whence the smell originated; but then, surrounded by active farm land as we are out here, we tend to take certain sounds and odors merely as part of living out here in Western Howard, something to be expected and generally enjoyed.

The same we thought true and "typical" regarding the light coatings of dust on our vehicles from time to time, despite the fact that there was no actual harvesting activity occurring nearby, the usual source of such "dustings".

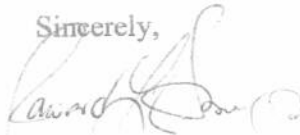
However, when it came to the question regarding nighttime activity, I indicated to you that I had indeed noticed on several occasions—in fact, for 3 or 4 evenings in a row sometimes and well into the night—the sound of what-I-would-normally-have-taken to be a harvesting machine, except that we were not then in any part of the normal harvest season. The engine noise was very loud and the sound of the back-up alarm distinctly audible. I stood in my front yard and managed to "localize" it to our immediate north, in the general direction of Oak Ridge. Since there is no tilled field as such between Timberleigh and Oak Ridge; and the sounds were too loud and clear to have emanated from Larriland's fields on the north side of Florence Road, I was certain that the source was Oak Ridge itself. I did not put two and two together until days later when I began noticing more and more large trailer trucks departing the site or heading up and down Woodbine Road, all loaded with wood waste or mulch.

Last Spring, as you will recall, we had our first community meeting up at the Lisbon Fire Station on the matter of Oak Ridge and the industrial mulching operation. At that time, Mr. Bonner packed many of us into buses and hauled us up to the site, where we witnessed first hand just what he had been doing for at least the previous 18 months-2 years on that property. There was the noisy bull dozer (with its piercing back-up alarm) and the front loader and the large conveyer, several very large piles of material yet to be ground-up, and several more long, very large piles of mulch drying-out. It was clear at the time what we were seeing, and that was indeed a full-blown industrial mulching operation. Why Mr. Bonner thought it was a good idea to take us all up there to see it for ourselves I cannot say, but it was that visit more than any other reason which led me into looking further into the ramifications of his current use of that property.

Clearly there have been and remain a large number of issues regarding what-I-consider-to-be a perversion of the intent of the existing laws pertaining to agricultural preservation, not the least of which is what-amounts-to tax dodging and land devaluation, something I happen to find particularly reprehensible, especially during this time of shrinking budgets on both the County and State levels. I'm quite certain that many of those old farmers who helped to craft the original legislation that resulted in the Farmland Forever signs we see hereabouts would roll over in their graves if they knew how their decades of effort were being dismissed and ignored.


At any rate, should you have any further questions regarding my or my family's experiences with the Oak Ridge operation, please let me know.

Sincerely,



Howard L. Smith Jr.

CC: file



2/2/15

CHRISTINE M. NIPER
NOTARY PUBLIC
FREDERICK COUNTY, MD
MY COMMISSION EXPIRES 6/15/2018

December 6, 2013

Howard County Farm Land Preservation
Howard County
3430 Courthouse Drive
Ellicott City, Md. 21043

AND

Maryland Department of Agriculture
Maryland Farm Land Preservation Foundation
50 Harry S. Truman Drive
Annapolis, Md. 21401

I am writing to express a concern regarding a business situated on a nearby Preservation Parcel. It is the operation doing business under the name Oak Ridge Farm LLC. The noise and air pollution from this operation is offensive to the neighboring farms.

No one knows better than those of you who dedicate your careers to preserving Maryland farmland how difficult this task can be. I don't think that operations like Oak Ridge Farm are the kinds of businesses that are appropriate for preservation parcels. I find it hard to imagine that preservation easements are being acquired only to allow operations of this sort. This kind of operation with its extreme noise, air pollution and heavy truck traffic is more appropriately suited for land zoned for heavy industrial use. I live almost a mile from this operation and I can hear its heavy machinery from inside my house with the windows and doors closed.

I ask you to take another look at this operation and consider whether this kind of so called alternative use fits with and compliments the desired farmland, rural ambiance that I'm sure is desired for our Maryland preserved farmland.

Thank you for considering my concerns.




Paul Shoffelt
2560 Jennings Chapel Road
Woodbine, Maryland 21797

November 29, 2014

TO WHOM IT MAY CONCERN

My name is Paul Shoffeitt. I live at 2560 Jennings Chapel Road, Woodbine, Maryland. My house is approximately one half to three fourths of a mile, as the crow flies, from the former mulch manufacturing facility on Woodbine Road operated by Oak Ridge.

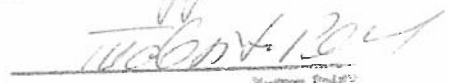
In the winter of 2013 and in the early months of 2014 I could hear from within my house with the doors and windows closed the noise from the operations at the Oak Ridge facility. The noise was loud, intrusive and out of keeping with the character of this farming and residential community.



Paul Shoffeitt
2560 Jennings Chapel Road
Woodbine, Maryland 21797

State of MARYLAND
County of CARROLL

Subscribed and sworn to before me this 29 day of November
2014 by Paul Shoffeitt



My Commission Expires: 9/14/2015

My Commission Expires: _____
Notary Public _____
_____ 20____
Subscribed and sworn to before me this _____ day of _____
_____ County of _____

Sayers, Margery

From: Jeff Harp <jeffandbhakti@hotmail.com>
Sent: Sunday, April 15, 2018 4:45 PM
To: CouncilMail
Cc: County Executive - Allan H. Kittleman; County Executive - Dr. Calvin Ball; County Executive - Harry Dunbar; District 001 - Elizabeth 'Liz' Walsh; District 001 - Jon Weinstein; District 001 - Raj Kathuria; District 002 - John Liao; District 002 - Opel Jones; District 003 - Christina Rigby; District 003 - Greg Jennings; District 003 - Hiruy Hadgu; District 003 - Steven F. Hunt; District 004 - Deb Jung; District 004 - Ian Moller-Knudsen; District 004 - Janet Siddiqui; District 004 - Lisa Kim; District 005 - China Williams; District 005 - David Yungmann; District 005 - Jim Walsh; Governor Larry Hogan; Kate Magill; MD Delegate District 13 - Jen Terrasa; MD Senate District 12 - Clarence K. Lam; MD Senate District 12 - Joseph 'Joe' Hooe; MD Senate District 12 - Mary Kay Sigaty; Kittleman, Allan; AskHealth
Subject: CB21-2018 Testimony
Attachments: Ltr to DEC 9.13.16 re part 360.pdf; SCDHS Comments re part 360highlight.pdf

Howard County Council Members,

Please include this email as CB21-2018 testimony for Jeff Harp:

I have previously presented two investigation reports performed by the Suffolk County Department of Health Services in NY that identify groundwater contamination caused by mulch facilities.

Each year that passes more evidence is discovered. I have attached as part of my testimony a copy of a 2016 cover letter and comments issued to the NY Dept. of Environmental Conservation by the Suffolk County Department of Health Services. These comments are specific and include recommendations to amend the State's solid waste regulations governing the composting of natural wood waste to prevent impacts to human health.

Three specific comments of interest:

Comment 4

Unpackaged finished mulch product stored on a site need to be regulated, as storage of these materials has been shown to cause groundwater contamination. Unpackaged product stored on the Gardens/Long Island facility in Yaphank was observed to significantly impact groundwater quality and a nearby private well.

In comment 13, the Health Department comments on existing regulations regarding a 200-foot setback:

Comment 13.

What is the justification for the 200-foot distance from a potable well? Department of Health Services has monitoring wells located 1,500 feet downgradient of a management site that exhibits water quality impacts above standards. This language should be revised to indicate that regulated activities must not have the potential to impact potable water wells.

In comment 20 they discuss facility size:

Comment 20:

What is the justification for exempting sites less than 2 acres? Relatively small sites that are located upgradient of a private well could potentially cause an impact to that well. For example, a 1.1-acre site in Moretown, Vermont was determined to be a likely cause of elevated manganese in a private well, significantly above the drinking water standard.

Mulch facilities cause groundwater contamination. If you allow these facilities in groundwater use areas, then the consequence will be contamination and impact to resident's health. The responsibility of the County Council is to adequately review the scientific information provided from testimony.

I request that the council provide this cover letter and comments along with copies of the two NY investigation reports to the Howard County Health Department and any other environmental regulatory authority for an official response. Therefore, upon review, the council should provide the Health Department's response (opinions and conclusions) to the community as part of the public record for this proposed legislation CB21-2018. This is a reasonable request and one that should have already been performed.

Regards,

Jeff Harp

5034 Green Bridge Road

Dayton, MD 21036

COUNTY OF SUFFOLK



STEVEN BELLONE
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

JAMES L. TOMARKEN, MD, MPH, MBA, MSW
Commissioner

September 13, 2016

Melissa Treers, P.E.
New York State Department of Environmental Conservation
Division of Materials Management
625 Broadway
Albany, NY 12233-7260

Subject: Suffolk County Department of Health Services' Comments on Proposed Amendments to NYSDEC Part 360 Regulations

Dear Ms. Treers:

The Suffolk County Department of Health Services (SCDHS) appreciates the opportunity to comment on the proposed amendments to the Part 360 Regulations for Solid Waste Management Facilities in New York State. SCDHS is optimistic that many of the proposed changes will have a positive impact on the environment with respect to solid waste activities in New York State, in particular the proposed new regulations regarding mulching facilities.

In order to further strengthen the proposed regulations, particularly with respect to the protection of groundwater, SCDHS recommends that additional changes be considered. These include requiring impermeable surfaces to prevent leachate and runoff impacts to groundwater from vegetative organic wastes, assistance to property owners with private wells impacted from solid waste management activities, and enhancing NYSDEC's ability to require monitoring groundwater where impacts from a site are suspected. Additionally, with respect to the use of on-site soils during redevelopment, some language clarification, additional options for developers and review of SCOs not reflecting background concentrations in Suffolk County are recommended. Attached are our specific comments for your consideration.

Thank you for taking the time to consider our comments. Should you have any questions, or if you would like to discuss our comments further, please call Walter Dawydiak at 631-852-5804.

Sincerely,

Christina Capobianco

Christina Capobianco, CPA
Deputy Commissioner

Cc: Carrie Gallagher, NYSDEC, Regional Director
Richard Clarkson, PE, NYSDEC, Chief, Facilities Section, Division of Materials Management
James L. Tomarken, MD, MPH, MBA, MSW, Commissioner, SCDHS
Walter Dawydiak, PE, Director, Division of Environmental Quality, SCDHS



OFFICE OF THE COMMISSIONER
3500 Sunrise Highway, Ste. 124, PO Box 9006, Great River, NY 11739-9006
(631) 854-0000 Fax (631) 854-0108

Suffolk County Department of Health Services

Comments on:

Part 360: Solid Waste Management Facilities; General Requirements

Use of On-Site Soils during Re-Development

Section 360.12 (Beneficial Use), of the current regulations, contains a statement which allows the use of soils from a property being converted to a realty subdivision as long as it is approved by the local health department (see below for current regulation).

360-1.15 Beneficial use.

(b) The following items are not considered solid waste for the purposes of this Part when used as described in this subdivision:

8) nonhazardous, contaminated soil which has been excavated as part of a construction project, other than a department-approved or undertaken inactive hazardous waste disposal site remediation program, and which is used as backfill for the same excavation or excavations containing similar contaminants at the same site. Excess materials on these projects are subject to the requirements of this Part. (Note: use of in-place and stockpiled soil from a site being converted to a realty subdivision, as defined by the Public Health Law [10 NYCRR 72], must be approved by the local health department.);

Under the proposed regulations such soils would be not be solid waste as long as they below Part 375 Unrestricted Soil Clean up Objectives (SCOs).

Comments:

1. Soils from redevelopment parcels do not appear to fall under the current or proposed definition of solid waste. Currently as written, a material is considered solid waste if it is discarded, i.e., "...spent, worthless, or in excess to the generator..." (Section 360.2 (a)(2)). In most cases these soils are used at the site and therefore not discarded. In addition, most of these cases presumably result from a lawful activity, such as the application of a pesticide, not from improper use or disposal of a material.

Recommendation: If it is NYSDEC's intent to regulate these soils as solid waste, the definition should be clearer.

2. If soils from redevelopment parcels are regulated as solid waste, is the intent to require off-site disposal of soils above unrestricted criteria? Using arsenic as an example, arsenic concentrations above unrestricted levels may be present across many acres of the property previously used for agricultural purposes and in many cases down to a foot of soil.

Recommendation: The SCDHS recommends that the regulations provide developers an option in which they can seek a case-specific beneficial use determination under Section 12 (d) by submitting a soil management plan to NYSDEC for approval.

3. For some contaminants, such as arsenic, the unrestricted use limits contained in Part 375 are based on rural upstate soil sampling and may not be appropriate for native soils on Long Island. The unrestricted soil clean up objective (SCO) for arsenic is 13 ppm. Data specific to Suffolk County indicates that background arsenic concentration in unimpacted, non-agricultural soils is approximately 4 ppm (unpublished 2002 SCDHS data; Sanok et al, 1995). Furthermore, previous soil management plans for redevelopment projects have been based on minimizing exposure to soil with arsenic above 4 ppm. Therefore, the proposed regulations would be less protective than past practices.

Recommendation: The relevance of SCO's that are not based on data reflecting background levels in Suffolk County and Long Island should be reviewed.

Comments on:
Proposed Part 360 (General Requirements)
Proposed Subpart Part 361-3 (Composting and Other Organics Processing Facilities)
Proposed Subpart 361-4 (Wood Debris and Yard Trimmings Processing Facilities)

General Comments

- 1) The NYSDEC Solid Waste Management Program should have a mechanism to provide assistance to private well users whose water quality is impacted by facilities performing solid waste activities. The NYSDEC Division of Environmental Remediation has such a mechanism (DER-24/ Assistance for Contaminated Water Supplies), along with a funding source. A companion mechanism for the solid waste program is needed.
- 2) There needs to be a clear, unequivocal statement that all facilities (*Exempt, Registered, and Permitted*) covered under Part 361-3 and Part 361-4 should expressly be prohibited from causing impacts to groundwater quality that exceed groundwater or drinking water standards. A similar statement expressly prohibiting impacts from dust and odors to surrounding properties should also be included.
- 3) The regulations should explicitly allow the NYSDEC to require groundwater monitoring wells if groundwater impacts are suspected at any type of facility (*Exempt, Registered and Permitted*).
- 4) Unpackaged finished product (such as compost and mulch products) stored on a site need to be regulated, as storage of these materials has been shown to cause groundwater contamination. Unpackaged composted material (product) stored on a site (Gardens/Long Island Compost facility in Yaphank) was observed to significantly impact groundwater quality and a nearby private well.
- 5) Section 361-3.5(7) requires that facilities handling particular types of material such as municipal solid waste, biosolids, septate, sludges, etc. must conduct activities such as waste storage, processing, leachate storage and product storage “on surfaces that minimize leachate release into the groundwater under the facility and the surrounding land surface...” This is presumably required due to concerns about these materials detrimentally impacting groundwater quality. Since the *Horseblock Road Investigation* report (July 2013), and the *Investigation of the Impacts to Groundwater Quality from Compost/Vegetative Organic Waste Management Facilities in Suffolk County* report (January 2016) both concluded that

vegetative organic waste management (VOWM) activities can cause significant impacts to groundwater quality, the requirement of the handling materials on surfaces that prevent leaching into groundwater should be expanded to VOWM facilities. The state of California is in the process of amending their regulations to require that certain types of composting activities be performed on impermeable surfaces for the protection of groundwater. The state of Illinois requires all landscape waste compost activities be performed on impermeable surfaces, or have an early detection groundwater monitoring system in place, due to concerns regarding detrimental impacts to groundwater. The state of Iowa requires that composting activities be performed on a low permeability base. It appears requiring VOWM activities be performed on a base that prevents impacts to groundwater from leachate and/or run-off would be consistent with current or pending requirements of other states. Due to the particular sensitivities involving contamination of groundwater designated as a sole source aquifer, consideration could be given to having the impermeable surface requirement for counties that have such a designation regarding their groundwater.

- 6) It is our understanding that a number of commercial VOWM sites accept and store animal manure at their sites to be provided as compost, or to mix with other composted material. It is also our understanding that this activity is not currently regulated. However, activities related to handling biosolids are regulated due such concerns as exposure to pathogens, potential groundwater and/or surface water impacts, etc. Since many of the same concerns regarding the handling of biosolids extend to the handling of animal manure, the regulation of animal manure at commercial VOWM sites should be considered to mitigate these concerns.

Specific Comments

Part 360

- 7) ***Exempt facilities 360.14 (b)*** "A facility is no longer considered an exempt facility if it fails to comply with any operational conditions that apply or if the facility poses a potential adverse impact to public health and the environment. In either case, the facility must cease accepting waste and remove and properly dispose of all waste and products resulting from the processing of waste at the facility in accordance with department instructions."

An Exempt facility causing groundwater and/or surface water quality to exceed groundwater, drinking water or surface water standards, in an area with a designated sole source aquifer, should also be required to cease accepting waste.

- 8) **Permit application requirements and permit provisions 360.16 (c)(2)(iii)(b)** “the location of all public and private water wells, surface water bodies, roads, residences, public areas and buildings, including the identification of any buildings which are owned by the applicant or operator, on the property and within 800 feet of the perimeter of the property;”

This provision should be expanded to 360.14 (*Exempt Facilities*) and 360.15 (*Registered Facilities*). In addition, all public and private wells and surface water bodies beyond 800 feet that could potentially be impacted from site activity should also be identified.

- 9) If impacts to public or private wells are identified as a result of *Exempt, Registered or Permitted* site activities, the facility owner should be required to mitigate the impacts. Additionally, if such impacts are from an *Exempt* or *Registered* facility, the facility should be required to obtain a permit.
- 10) **Operating requirements 360.19 (b)(2)** “The owner or operator of a facility must operate the facility in a manner that minimizes the generation of leachate and does not allow any leachate to enter surface waters or groundwater except under the authority of a State Pollution Discharge Elimination System Permit.”

Since sections 361-3 and 361-4 of the proposed regulation states that “Precipitation, surface water, and groundwater that come into contact with” [the materials regulated under these sections] “is not considered leachate”, there must be language that expressly prohibits this contact water (run-off?) from entering surface waters and groundwater, consistent with what is required for leachate. Also, the term “run-off” needs to be expressly defined.

Part 361-3 Composting and Other Organic Processing Facilities

- 11) **Exempt facilities 361-3.2 (b)** “A composting or other organics processing facility that accepts no more than 3,000 cubic yards of yard trimmings, either processed or unprocessed, per year. This quantity does not include tree debris materials that are not intended for composting. For these facilities, precipitation, surface water, and groundwater that has come in contact with yard trimmings or the resultant product is not considered leachate; however, it must be managed within the site and must not enter a surface waterbody or a conveyance to a surface waterbody, or cause a violation of water quality standards promulgated in Part 750 of this Title.

What is the justification for exempting facilities processing less than 3,000 cubic yards of material per year? Are these facilities less likely to negatively impact the groundwater, neighbors or the environment?

The contact waters that results when precipitation, surface water, and groundwater comes into contact with yard trimmings or the resultant product, needs to be defined , see Comment #9.

The following should replace the second part of the third sentence, after the word “however”:
“it [run-off?] must be managed within the site and must not enter a surface waterbody or a conveyance to a surface water body, to groundwater, or cause a violation of water quality standards promulgated in Part 750 of this Title, or Part 703, Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations.”

12) **Registered facilities 361-3.3 (a)(1)** *“...precipitation, surface water, and groundwater that has come in contact with yard trimmings or the resultant compost is not considered leachate...”*

See comment #9 above.

“The facility must have a written runoff plan that is acceptable to the department that outlines the methods that will be used to prevent runoff from entering and leaving the site and minimizing the movement of organic matter into the soil under the site.”

The following should be added to the end of the above sentence, after the word “site”: *“, or cause impacts to groundwater or surface waters that result in a violation of groundwater, drinking water, or surface water quality standards.”*

13) **Registered facilities 361-3.3 (b)(7)** *“The activities regulated under this section must be at least 200 feet from the nearest surface water body, potable water well and state-regulated wetland, unless provisions are implemented to prevent leachate from leaving the boundaries of the site in a manner acceptable to the department.”*

What is the justification for the 200 foot distance from a potable well? SCDHS has monitoring wells located 1,500 feet downgradient of a VOWM management site that exhibits water quality impacts above standards. This language should be revised to indicate that regulated activities must not have the potential to impact potable water wells, surface waters, etc.

14) **Permit application requirements 361-3.4 (b)(9)** *“The method used to control surface water run-off and to manage leachate, including the method for treatment or disposal of leachate generated.*

Is the “run-off” referenced here the same as the “contact” water discussed in comment #9?

- 15) **Design and operating requirements 361-3.5 (a)(1)** – *“Unlined compost areas located on soils with a coefficient of permeability greater than six inches per hour may require installation of groundwater monitoring wells or other monitoring devices and groundwater monitoring, as determined by the department.”*

What is the significance of 6 inches per hour, and what is the origin of this reference? Considering the sandy soils on Long Island, perhaps monitoring wells should be required at all permitted facilities in Nassau and Suffolk Counties.

- 16) **Design and operating requirements Section 361-3.5 (a)(6)** *“All Leachate must be collected and disposed in a manner approved by the department. For uncovered processing facilities, the leachate collection and treatment system must be adequate to manage the quantity of leachate generated at the facility based on rainfall intensity of one-hour duration and a 10 – year return period.”*

Since section 361-3.5 (a) (5) states that precipitation coming into contact with yard trimmings or compost is not considered leachate, it is unclear why this section is referring to the quantity of leachate generated based upon an intensity of precipitation (“rainfall intensity of one-hour”).

This should also be required for the “run-off” discussed in comment #9.

- 17) **Design and operating requirements 361-3.5 (7)(iv)** *“For composting facilities, product storage beyond the 50-day detention time requirement is not required to occur on a low permeability surface. For products other than compost, the department will determine when the product need no longer be stored on a pad.”*

As previously indicated in Comment #4, the SCDHS has observed significant groundwater impacts from composted material (unpackaged product) stored on a site (Gardens/Long Island Compost facility in Yaphank) that detrimentally impacted a nearby private well. The storage of unpackaged product on facilities needs to be done in such a way as to prevent impacts to groundwater quality.

- 18) **Design and operating requirements 361-3.5 (9)** *“For uncovered processing facilities, the facility must be able to manage the quantity of leachate generated at the facility based on a rainfall intensity of one-hour duration and a 10-year return period.”*

Since section 361-3.5 (a) (5) states that precipitation coming into contact with yard trimmings or compost is not considered leachate, it is unclear why this section is referring to the quantity of leachate generated based upon an intensity of precipitation (“rainfall intensity of one-hour”).

19) **Design and operating requirements 361-3.5 (a)(13) (i)** “a facility without a pad and leachate collection system must maintain a minimum separation of 200 feet to a potable water well or surface water body and 25 feet to a drainage swale.”

See comment #12

Subpart 361-4 Wood Debris and Yard Trimmings Processing Facilities

20) **Exempt facilities 361-4.2 (b)** “A facility (including storage of incoming material and processed debris) that occupies no more than two acres...”

What is the justification for exempting sites less than 2 acres? Relatively small sites that are located upgradient of a private well could potentially cause an impact to that well. For example, a 1.1 acre compost site in Moretown Vermont was determined to be a likely cause of elevated manganese in a private well (significantly above the drinking water standard, see attached). Language should be added that a site occupying no more than two acres may be exempt, provided there is no potential to impact potable water wells.

21) **Registered Facilities 361-4.3(12)** “For the purposes of Part 360 and this Part, precipitation, surface water, and groundwater that has come in contact with debris and trimmings, both incoming and processed, is not considered leachate, but must be managed in a manner acceptable to the department. The facility must have a written runoff plan that is acceptable to the department that outlines the methods that will be used to prevent runoff from entering and leaving the site and to minimize the movement of organic matter into the soil at the site.”

With respect to the term “run-off”, see Comment #9. The following should be added to the end of the above sentence, after the word “site”: “, or cause impacts to groundwater or surface waters that result in a violation of groundwater, drinking water, or surface water quality standards.”

22) **Registered Facilities 361-4.3(14)** “The following buffer zones from processing and storage must be followed: 200 feet to a water well or surface water body...”

See Comment #12.

23) ***Design and operating requirements 361-4.5*** "...Also, the facility must have stormwater controls that minimize the potential for organic matter to reach groundwater and surface water resources."

Is the "stormwater" referenced in this section the same as the "run-off" discussed in Comment #9? If not, the word "run-off" should be added to the sentence along with "stormwater". Also, the following should be added to the end of the above sentence, after the word "resources": ", or cause impacts to groundwater or surface waters that result in a violation of groundwater, drinking water, or surface water quality standards."

Comments on:

Proposed Part 360 (General Requirements)

***Proposed Subpart Part 361-5 (Construction and Demolition Debris Processing Facilities)
and Proposed Part 364 (Waste Transporters)***

Apparent Conflict

Section 361-5.7 C&D debris tracking from registered and permitted facilities states:

(a) All material leaving a registered or permitted C&D debris processing facility, and any other material if required pursuant to a department-approved remedial plan, must be accompanied by a C&D debris tracking document prescribed by the department...

While, **SUBPART 364-2 EXEMPTIONS** states that the following transport is exempt from Part 364, including the requirement for a tracking document:

(b)(6) C&D debris and historic fill in quantities less than or equal to 10 cubic yards in any single shipment.

This introduces an apparent conflict. Would a C&D shipment of less than or equal to 10 cubic yards leaving one of the facilities described in Section 361-5.7(a) require a tracking document as required by that section or be exempt from the tracking document requirements as indicated in Part 364.

Sayers, Margery

From: Marty Svrcek <MSvrcek@mcagfair.com>
Sent: Sunday, April 15, 2018 4:43 PM
To: CouncilMail
Subject: CB21-2018

Howard County Council Members

Oppose the passage of CB21-2018.

It is unnecessary for you to be reminded of the health, safety and quality of life issues surrounding Industrial Mulching operations. Your time is too valuable to provide information that you already know.

The risk of these processing operations to the citizens of Howard County are sufficient to say "No" when it is time to make a decision to reject CB21-2018.

The fact that this piece of legislation will help so few and hurt so many is in itself sufficient rationale to deny the request for passage.

To see value in this type of industry, operating on farmland that is the pride of our county is left to those who see significant financial gain at the expense of others.

Opposition to CB21-2018 is the rational and common sense position to take on the future of Industrial Mulching in Howard County. Regardless of where it is done, the risks are great.

If the price of processed organic material increases due to additional transportation costs due to more remote locations, this a cost that your community would happily bear.

Thanks,

Martin Svrcek
16475 Ed Warfield Rd
Woodbine, MD 21797
Since 1977
240-678-0451

Sayers, Margery

From: Richard Tufts <tuftsdaisy@verizon.net>
Sent: Sunday, April 15, 2018 1:56 PM
To: CouncilMail
Subject: CB 21-2018 Testimony

Council Members,

My wife and I oppose mulching in Howard county for the following, single reason: **According to the American Cancer Society International Agency for Research on Cancer wood dust is a carcinogen and could cause cancer in humans.**

As you are aware, scientific evidence has been presented by Doctor Victor Veculesco, MD, PhD, Director of Oncology at Johns Hopkins Medical Center, during testimony before the Howard County Environmental Sustainability Board, the County Council and the Mulch Task Force proceedings. These presentations reflect the wealth of evidence-based data further supporting that wood dust is a cancer-causing substance. And yet in the wake of this, here we are again wrestling with the same issue, which seems to indicate that either no one believes or wants to believe hard, scientific, medical evidence... or worse, thinks, "It can't happen to them."

But what if you are a cancer survivor striving to control risks to known threats, such as certain foods, wine, alcohol, etc.,... those things you can control to continue being cancer-free? Now you are faced with a known carcinogen that you CAN NOT control, short of moving out of your home.

Moreover, would you want to live across the road/street or have your children playing down wind from a mulching operation knowing that it produces Wood Dust that a reputable organization, the American Cancer Society, has determined can cause cancer? This as a simply answered question - either yes or no. If 'yes,' then obviously you do not consider it much of a risk. It can not happen to you, your spouse, your children or other family members, right?

We say, "It can happen" and therefore, do not want mulching permitted or allowed in our county... anywhere, especially given it will probably will not be monitored or controlled. For we are aware our county traditionally DOES NOT adequately monitor laws and regulations.

Additionally, large, 18-wheeler trucks are associated with mulching operations. They have to travel over our narrow, tertiary roads, competing with farmers moving large equipment from field to field, residents in inherently large vehicles, plus a recently introduced, new vehicle on our roads... bicycles. I submit this conglomeration cannot safely compete on our narrow, Scenic roads. It is absolutely unsafe!

As our elected officials, you are not only responsible for carrying out duties governing our county, but just as importantly, protecting the citizens of Howard... your constituents. We, therefore, urge you to act RESPONSIBILITY and protect everyone from the dangers of mulching. Remember it has been demonstrated, wood dust can cause CANCER.

We urgently request that you recognize the very real threat mulching can have on the health of our citizens. This year in America Howard is the second healthiest county in which to live. We were number one just last year. The Horizon Foundation is committed to restoring our position to number one. Mulching will just make that goal more difficult to reach.

As our trusted legislators, we ask that you do the right thing!! Vote NO TO ALL MULCHING!!! **Make Howard the safest county in America in which to live.**

Very respectfully,
Mr. & Mrs. Richard G. Tufts
Daisy

Sayers, Margery

From: James Nickel <james.nickel55@gmail.com>
Sent: Sunday, April 15, 2018 12:57 PM
To: CouncilMail
Cc: County Executive - Allan H. Kittleman; County Executive - Dr. Calvin Ball; County Executive - Harry Dunbar; District 001 - Elizabeth 'Liz' Walsh; District 001 - Jon Weinstein; District 001 - Raj Kathuria; District 002 - John Liao; District 002 - Opel Jones; District 003 - Christina Rigby; District 003 - Greg Jennings; District 003 - Hiruy Hadgu; District 003 - Steven F. Hunt; District 004 - Deb Jung; District 004 - Ian Moller-Knudsen; District 004 - Janet Siddiqui; District 004 - Lisa Kim; District 005 - China Williams; District 005 - David Yungmann; District 005 - Jim Walsh; Governor Larry Hogan; Kate Magill; MD Delegate District 13 - Jen Terrasa; MD Senate District 12 - Clarence K. Lam; MD Senate District 12 - Joseph 'Joe' Hooe; MD Senate District 12 - Mary Kay Sigaty; Kittleman, Allan
Subject: CB 21-2018 Testimony - Proposed Common Sense Amendments

Council Members,

Please include this email as testimony. I hope to see the proposed amendments discussed in a public forum by Council Members.

CB 21-2018 makes no connection between the owner of the property and the operator of the mulch/compost operation. Since similar facilities have already caused severe groundwater contamination elsewhere, which apparently the sponsors CB 210-2018 readily accept, it should be their own property that is made vulnerable to heavy metal contamination. I can't imagine why any Council Member, or the County Executive, would disagree with that.

It seems the Farm Bureau, and all the proponents of CB 21-2018, choose to ignore the documented health risks they choose to inflict on surrounding neighborhoods due to the operations they would like to perform. Since they are so inclined, it seems right that they themselves should not object to their facilities being required to be located on their place of permanent residence. If they did object, it would only serve to prove their disingenuous motives. Therefore, the following amendments to CB 21-2018 are requested:

Amendment 1: The RC or RR property that has an approved operation per CB 21-2018 must be owned by the operator.

Amendment 2: The parcel used for an approved operation per CB 21-2018 must also be the permanent residence of the operator or an immediate family member of the owner at all times.

Amendment 3: Approval of the operation shall be rescinded if the property owner changes or if the operator changes their permanent address. A new owner may seek to obtain approval for conditional use under the regulations that are valid at that time.

Amendment 4: In the event that the ground water does become contaminated with heavy metals due to the operation, the operator shall be liable for the entire remediation of the impact to any surrounding properties. In the event, that the owner/operator is unable to do so, it will be the responsibility of Howard County to bear the burden of remediation. This may include purchase of the properties affected. The purchase price shall be determined as the properties' fair market value prior to their contamination, plus 15%. This remediation shall not preclude or offset any other awards of damages that may arise from other legal actions or court determinations on behalf of the affected homeowner(s).

These are straightforward amendments. Those operators should share in negative impacts and risks shown to exist with these types of operations. They should bear the burden of the liabilities that result, including destruction of

property values. If they are unable to do that, then the Howard County Government should be held liable. These are common sense amendments.

Best Regards,
James Nickel
4904 Green Bridge Rd
Dayton, MD

Sayers, Margery

From: John Tegeris <johntegeris@gmail.com>
Sent: Saturday, April 14, 2018 2:27 PM
To: Ted Mariani; Rick Lober/Annette; Brent Loveless; Stu Kohn; Rob Long; Preserve Dayton; Velculescu Victor; Jeff Harp; Jeff Harp; Luv of My Life; Tim Mayer; Mike Navarre/Lynn; Bethany Hooper; Rob Bundy; Dan O'Leary; Andrew Royle; Lisa Markovitz; Susan Garber; Carol Jane Gray; Ocheltree Janet; Erin Allen; John Allen; Al Risdorfer; Bono Tony V; Paul Morris; Paul Retzbach; Colleen Retzbach; Kristin Robertson; Lora Houck; Trip Kloser; Craig Ostrom; Julius Tunji Akintade; Chelakara Shankar; James Nickel; Banwarth Dave; dave.kromer@tunnellgov.com; Sylvie Leary; Alan Schneider; Paul Shoffeitt; Mike Bucci; Robert Scales; Katie Hester; Mike; Patricia Soffen; Joanne Heckman; <darbus37@gmail.com>; Jennifer Bush; SHARON KEENY; tilycog@comcast.net; cathydatz@yahoo.com; Richard Valentine; Belkacem Manseur; Alex Xu; Richard Taber; Phil Montag; <bstrickland@wtplaw.com>; ST Balimtas; Michael Burns; Paul Retzbach; <fernandesgj@washpost.com>; Eric Goldberg; <benabili@hotmail.com>; Rob Bovello; Paul Robertson; Michael Price; Doug Lee; Jay and Santa Bhalani; Ajay soodan; jmathew@acidd.us; Om Prakash Gupta; <jthensel61@gmail.com>; Benjamin Lee; <joelhouck66@yahoo.com>; Ty Shrader; sdwerlinich@aol.com; Williams; Z Zhang; Brian Lehman; Lisa Valentine; Denise Howze; Hafida Manseur; Ning Hu; dianawwscales@gmail.com; Richard and Susan Taber; Marisa Montag; <estrickland@offitkurman.com>; Robin Balimtas; Kathy Burns; Home; Dahna Goldberg; Michelle Meney; <jmbovello@comcast.net>; Delia Velculescu; Annette Lober; rajput31@yahoo.com; Melissa and Larry Kramer; Jyoti Gupta; <s.hensel@live.com>; Carol Werlinich; Mirra Morris; Sally Ostrom; Karen K; Laurie Lehman; kf321jump@verizon.net; Paul Capodanno; Fred Hazeltine; China Williams; info@davidyungmann.com; walshforone@gmail.com; John Tegeris
Cc: Kittleman, Allan; CouncilMail; Ball, Calvin B; Terrasa, Jen; Weinstein, Jon; Sigaty, Mary Kay; Fox, Greg; Lazdins, Valdis; Gowan, Amy; Peter Jensen; pwood@baltsun.com; mdzwonchyk@baltsun.com; aburnett@wjz.com; Kim Dacey; srorman@sbgvtv.com; bzumer@sbgvtv.com; ambarnett@sbgvtv.com; andrew.green@baltsun.com
Subject: Dayton, Ground Zero for Industrial Mulch/Compost for Howard County if CB21-2018 Passes...

Fellow Supporters

How many ways are there to convey the same message? Only the numbers are changing...CB20, CB60, CB21...by this pattern the next one must be CB61. Will there be another one if we lose the vote again? You bet. And we will work our tails off to help the right candidates who support us get elected and do the converse for those that have a hand in passage of CB21-2018, aka Kittleman, Sigaty and Weinstein (DRPS candidate endorsements coming soon). We simply can't stop until your children and families are safe. If we can't count on our County Executive, or CB21-2018 bill sponsors Sigaty and Fox to protect us, then we have to work to protect ourselves. Kittleman made campaign promises. Broken. Fox sponsored acceptable and current CB20-2014 that most impacts his own District 5. Betrayal. Sigaty voted for CB20-2014 then seemingly pushes for ways to help farmers, but finally admits new CB21-2018 allows for commercial operations. Deceitful.



This ag preserve parcel in Dayton looks like a good place to grow mulch and compost with food waste, and not to grow corn.

Let's take a big-picture look at how we got to this point, starting at the beginning:

- In 2013, a businessman and his lawyer started the ball rolling on Comprehensive Zoning changes that would allow mulch processing to be considered farming. For them this was necessary because ag preserve farmland is cheap to buy, but doesn't allow for industrial or commercial activity, which is what they had planned.
- In 2014, that same businessman files a pre-submission plan to construct a 16-acre industrial mulch manufacturing plant on his newly purchased ag preserve farmland in the heart of Dayton, exploiting the ag preserve program since changes in Comp Zoning paved the way for it.
- As a community, we work to get CB20-2014 passed that prohibits mulch manufacturing operations on all ag preserve farmland in Howard County.
- Sigaty and Fox immediately put forth Resolution 74-2014 to call for a Mulch Task Force to study the issue. They name members to the Task Force who support industrial mulch, with token members to represent the residents. Sigaty elects Richard Goldman to be the Chair for the residents group. Goldman proceeds to vote with the pro-mulch manufacturer contingent, and residents lose almost every vote taken during Mulch Task Force meetings 15-4. Goldman was subsequently honored by the Farm Bureau for "outstanding service on the Mulch Task Force."
- CB60-2017 is crafted based on recommendations from the Mulch Task Force majority report, and now allows for Type 2 feedstock (food waste, animal mortality, manure) to be trucked in/industrial processed/trucked out for commercial sale. Oddly enough, Type 2 feedstock was never discussed during the Task Force meetings, and likely a Sigaty addition for unknown personal agenda-driven reasons. Recommendations put forth in the residents' minority report were ignored.
- Around time CB60-2017 was introduced, said Dayton businessman begins an estimated 1,000 3-axle dump trucks in and out of his Dayton farm over a 6-8 week period. We are told he is conducting a soil conservation study, with no ulterior or forward-looking motive.
- On Nov 6, 2017 CB60-2017 passed, but was then determined invalid since the Council vote exceeded the statutory 125-day limit to vote on a bill.
- In 2018, hundreds more 3-axle dump trucks move in/out of businessman's Dayton ag preserve farm, this time resulting in some type of cementitious all weather pad being installed, seemingly in the same location that the original pre-submission plan shows planned construction of a mulch manufacturing plant. Interesting side note, a pre-sediment plan and an all-weather pad are requirements for building a mulch manufacturing plant.
- Looking to the future, sound business planning would suggest a partnership between neighboring "farms" to stack acreage devoted to industrial processing and commercial sale of mulch and compost containing food waste (think slaughterhouses, landfills and garbage dumps since CB21 will allow for Type 2 feedstock), thereby allowing a mulch/compost manufacturing plant of increased size to be operated within the allowed rules.

- We could then see an 8 acre industrial mulch and compost facility per CB21-2018 and the ability to do 1 acre of mulch and 3 acres of food waste riddled compost on each ag preserve parcel, with no restriction on truck size and no limit to what is trucked on/off for commercial sale. Isn't the County landfill Alpha Ridge just 6 acres in size? Guess that must be considered farming, too.

Bottom line is that CB21-2018 is a shameful product of poor leadership and lies that benefit industrial business owners, not farmers. Farmers live on the land that they farm. NWWWR operators don't live on the land that houses their operations, with good reason. NWWWR is not farming.

Show up Mon Apr 16 and testify so your voices of opposition to CB21-2018 will be heard. We need each and every one of you to attend. Many thanks.

Best,
John Tegeris, PhD
President, DRPS

Sayers, Margery

From: Cole, Henry <hcole@hcole-environmental.com>
Sent: Saturday, April 14, 2018 11:24 AM
To: CouncilMail
Subject: Letter in Support of CB21-2018
Attachments: Howard County Council Letter to members on CB21-2018.pdf; Howard County Council Letter to members on CB21-2018.pdf

To: Members of the Howard County Council
From: Henry S. Cole, Ph.D.

Please see attached. Thank you

--

Henry S. Cole, Ph.D.
President, Henry S Cole Environmental Associates, Inc.
301 780 7990



Science, Solutions and Leadership for the Environment
And Communities

Henry S. Cole & Associates Environmental
11229 Mattaponi Rd, Upper Marlboro, MD 20772

(301) 780 7990 (U.S.)
hcole@hcole-environmental.com

Dear Members of the Howard County Council

Last October 17, 2017 I had the honor of testifying before the Howard County Council as a member of the expert panel addressing the potential impacts of composting facilities in rural areas of the County. My expertise is in the field of air pollution meteorology. In this capacity I have served as an expert witness in numerous cases involving odors and air quality impacts of landfills, composting, and other industrial sources. My comments pertaining to CB60-2017, current form CB21-2018, focused on the transport and dispersion of potential emissions from composting facilities.

As I stated at the Council meeting, it is my professional opinion that compost facilities that comply with the County's proposed CB-21 2018, applicable COMAR regulations and that obtain the required permits will not adversely affect offsite properties including nearby homes and public facilities. My opinion is based on: (1) low emission rates of dusts, gases and volatile organic compounds associated with odors for compliant operations (2) required setbacks and buffers that provide atmospheric dispersion and deposition rates sufficient to prevent nuisance levels of odors and dust.

On the morning of October 17, 2017, I conducted a 45-minute inspection of an active composting facility located on a Howard County farm. For extended times during the inspection, I was positioned within several feet of the windrows. I detected no noticeable odors coming from the windrows even during a period when the compost was being mechanically turned by the operator. Some dust was generated during the turning but was dispersed and/or settled within 30 or 60 feet downwind from the compost.

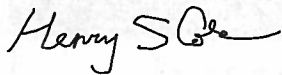
I am also a member of several organizations that advocate for locally-based farms including the Maryland Organic Food and Farming Association (MOFFA) and a Board Member of Patuxent River Keepers. As I said to the Council in October, composting is a vital part of community-based farm to food networks. The addition of compost to soils for growing vegetables, fruits and other crops preserves soil ecosystems and water retaining capacity critical to sustain local food production for the coming decades. The need for composting will continue to grow as landfill and incinerator capacity continue to

decline. Composting lowers the carbon input to the atmosphere and reduces the odors associated with landfills. Moreover, the current dependence on food from distant sources may grow increasingly difficult and expensive if current trends in climate change and water shortage worsen—as in the case of California.

I applaud Council members and its composting Task Force for putting forth a bill that facilitates composting and encourage that the Council will enact even broader measures to preserve agricultural lands in Howard County—measures which will boost local economic growth, employment, and food security for the future.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Henry S. Cole". The signature is written in a cursive, flowing style.

Henry S. Cole, Ph.D., President of Henry S. Cole Environmental Associates



Henry S. Cole & Associates Environmental
11229 Mattaponi Rd, Upper Marlboro, MD 20772

(301) 780 7990 (U.S.)
hcole@hcole-environmental.com

Dear Members of the Howard County Council

Last October 17, 2017 I had the honor of testifying before the Howard County Council as a member of the expert panel addressing the potential impacts of composting facilities in rural areas of the County. My expertise is in the field of air pollution meteorology. In this capacity I have served as an expert witness in numerous cases involving odors and air quality impacts of landfills, composting, and other industrial sources. My comments pertaining to CB60-2017, current form CB21-2018, focused on the transport and dispersion of potential emissions from composting facilities.

As I stated at the Council meeting, it is my professional opinion that compost facilities that comply with the County's proposed CB-21 2018, applicable COMAR regulations and that obtain the required permits will not adversely affect offsite properties including nearby homes and public facilities. My opinion is based on: (1) low emission rates of dusts, gases and volatile organic compounds associated with odors for compliant operations (2) required setbacks and buffers that provide atmospheric dispersion and deposition rates sufficient to prevent nuisance levels of odors and dust.

On the morning of October 17, 2017, I conducted a 45-minute inspection of an active composting facility located on a Howard County farm. For extended times during the inspection, I was positioned within several feet of the windrows. I detected no noticeable odors coming from the windrows even during a period when the compost was being mechanically turned by the operator. Some dust was generated during the turning but was dispersed and/or settled within 30 or 60 feet downwind from the compost.

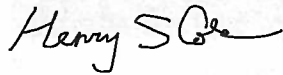
I am also a member of several organizations that advocate for locally-based farms including the Maryland Organic Food and Farming Association (MOFFA) and a Board Member of Patuxent River Keepers. As I said to the Council in October, composting is a vital part of community-based farm to food networks. The addition of compost to soils for growing vegetables, fruits and other crops preserves soil ecosystems and water retaining capacity critical to sustain local food production for the coming decades. The need for composting will continue to grow as landfill and incinerator capacity continue to

decline. Composting lowers the carbon input to the atmosphere and reduces the odors associated with landfills. Moreover, the current dependence on food from distant sources may grow increasingly difficult and expensive if current trends in climate change and water shortage worsen—as in the case of California.

I applaud Council members and its composting Task Force for putting forth a bill that facilitates composting and encourage that the Council will enact even broader measures to preserve agricultural lands in Howard County—measures which will boost local economic growth, employment, and food security for the future.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Henry S. Cole". The signature is written in a cursive style with a long, sweeping tail on the letter "e".

Henry S. Cole, Ph.D., President of Henry S. Cole Environmental Associates

Sayers, Margery

From: Rick Lober <rick.lober@gmail.com>
Sent: Friday, April 13, 2018 9:47 AM
To: CouncilMail
Cc: County Executive - Allan H. Kittleman; County Executive - Dr. Calvin Ball; County Executive - Harry Dunbar; District 001 - Elizabeth 'Liz' Walsh; District 001 - Jon Weinstein; District 001 - Raj Kathuria; District 002 - John Liao; District 002 - Opel Jones; District 003 - Christina Rigby; District 003 - Greg Jennings; District 003 - Hiruy Hadgu; District 003 - Steven F. Hunt; District 004 - Deb Jung; District 004 - Ian Moller-Knudsen; District 004 - Janet Siddiqui; District 004 - Lisa Kim; District 005 - China Williams; District 005 - David Yungmann; District 005 - Jim Walsh; Governor Larry Hogan; Kate Magill; MD Senate District 12 - Clarence K. Lam; MD Senate District 12 - Joseph 'Joe' Hooe; MD Senate District 12 - Mary Kay Sigaty
Subject: CB 21-2018 Testimony - Rick Lober
Attachments: Lober Mulch Testimony 16 April 2018.docx

Please find attached my testimony for the hearing on Howard County CB-21-2018 to be held on April 16th 2018.

While I have been involved in the process leading up to this Bill from day one (January 2014), I cannot attend the hearing that evening and have submitted my testimony in written form.

Thank you for your consideration,

Rick Lober

Testimony of Richard M. Lober on CB-21-2018

My name is Rick Lober and I have been involved in the discussions on mulch and composting for the last 4 years having served on the residents/farming work group for over 20 sessions and on a smaller working group organized by DPZ and the County Executive.

I do appreciate the time spent by Greg Fox, Mary Kay Sigaty, Allan Kittleman, and members of DPZ over the last few years in dealing with this important issue. I also am grateful for what I have learned from our hard working farming community within Howard County.

However, the end result of the many hours spent on the issue is the current CB-21 which negates almost all input by Howard County residents groups and has little to do with farming. The bill is filled with special considerations for a small group of so-called "farmers" who have been operating land clearing and mulch manufacturing facilities for years on County and State agricultural preservation lands – often with no permit, conditional use hearing, or compliance with zoning laws in existence now or at the time operations began. All of this is being presented under the guise of "helping the farming community" or keeping Howard County "Green" while the end result is a gross violation of our County and State Agricultural Preservation Programs.

These programs allow the County or State to buy the development rights of farms in our community in order to preserve the farm for agricultural uses only - in perpetuity. Two such bills passed last year in which the County purchased development rights for a total of 112 acres at a cost of \$3.25 million dollars.

I fully support this program as it provides great benefit to our farming community and the residents of Howard County. However, I want to highlight certain portions of these bills that restrict development rights and express my concern over the County's efforts to continue to water down these provisions through zoning law amendments.

Per the bills language, "Development Rights" means the rights of the seller in the land to develop the Land for ANY purpose other than Agricultural Uses. "Development Rights" shall include, but not be limited to, the right to use the Land for INDUSTRIAL OR COMMERCIAL USES, for residential purposes, or the storage or depositing of trash, junk, rubbish or debris. These are the rights the County is buying and the farm owner is forfeiting to preserve our farmlands.

The bills also state that Agricultural Uses includes what most of us would consider farming activities (growing crops, breeding animals, and the sale of agricultural products produced on the land) along with other uses DIRECTLY RELATED TO or as an accessory use of the Land for FARMING AND AGRICULTURAL PURPOSES.

This all seems pretty clear cut – farming only, no homes AND no industrial OR COMMERCIAL uses for perpetuity; however, upon reading the Howard County Zoning Regulations, section 106 on Conditional uses allowed on ag preserve properties, the following is allowed on farms in the ag preservation program: Barber Shops, Hair Salons, Cell Towers, Animal Shelters, Commercial School Bus operations,

Solar Facilities and if CB21 passes next month, commercial compost and mulching (NWWR) businesses. It is hard to imagine how these relate to an accessory use of a farm for FARMING AND AGRICULTURAL PURPOSES.

My understanding and discussion with many of the farmers who have become part of this program is that they are proud that they themselves, their parents or even grandparents made this commitment to maintain the farm as an agricultural activity for perpetuity. However, the uses listed above are not farming activities or are any way related to an accessory agricultural use of the farm.

This continuing watering down of the zoning regulations has allowed commercial business owners to purchase these farms at a very low cost (given development rights have been forfeited), place commercial operations such as those noted above on these farms, and reap the tax benefits (\$0 Property taxes) associated with the ag preserve program instead of paying what would be much higher taxes for facilities that should be placed on M1/M2 lands.

In looking at the specifics of CB-21, DPZ has given the false impression that commercial uses of ag preserve lands will not be allowed. For mulch, only a nursery may operate at one acre. For compost, the limit is set at 3 acres for any type of farm. However, while "retail sales" are limited to 5% of end product there is no stipulation on "commercial sales" or large 18 wheel trucks entering or leaving the facility. In addition, the bill defines ag preserve lands as only those that are continuing to receive payments from the County – not those that have been fully paid. This is a major loophole typical of what we have seen lawyers for special interests groups lobby to have inserted into language at the 12th hour.

In the spring of 2017, a residential group representative and I sat in meetings late in the Bill's process with County Council members and the County Executive. At that time, assurances were made that the bill would limit "commercial sales" to 5% for both mulch and compost and restrict truck size on agricultural preservation lands. This clearly would have stopped commercial operators from using lands in agricultural preserve for industrial mulch and compost operations thus allowing only farmers to produce what they need for the farm itself. However, all of that language has been eliminated, watered down or made subject to major loopholes in the current CB-21 thus opening the door to commercial operations.

Finally, it has been disappointing to see promises made by the winning candidates for County Council and County Exec in the 2014 election be broken by their sponsorship and initial endorsement of this Bill. I have also witnessed professionals in the areas of health, fire and the environment be ignored, humiliated and in some cases threatened with the loss of their job while trying to inform DPZ and the Council on the health and safety issues of the current bill before us. This is local politics at its worst.

Given the extensive time spent by County residents, farmers, Council Members, DPZ and the County exec, CB-21 should be tabled until loopholes are removed, agricultural preservation laws are maintained and the health and safety of our residents fully considered.

Sayers, Margery

From: John Tegeris <johntegeris@gmail.com>
Sent: Wednesday, April 11, 2018 11:25 PM
To: Ted Mariani; Rick Lober/Annette; Brent Loveless; Stu Kohn; Rob Long; Preserve Dayton; Velculescu Victor; Jeff Harp; Jeff Harp; Luv of My Life; Tim Mayer; Mike Navarre/Lynn; Bethany Hooper; Rob Bundy; Dan O'Leary; Andrew Royle; Lisa Markovitz; Susan Garber; Carol Jane Gray; Ocheltree Janet; Erin Allen; John Allen; Al Risdorfer; Bono Tony V; Paul Morris; Paul Retzbach; Colleen Retzbach; Kristin Robertson; Lora Houck; Trip Kloser; Craig Ostrom; Julius Tunji Akintade; Chelakara Shankar; James Nickel; Banwarth Dave; dave.kromer@tunnellgov.com; Sylvie Leary; Alan Schneider; Paul Shoffeitt; Mike Bucci; Robert Scales; Katie Hester; Mike; Patricia Soffen; Joanne Heckman; <darbus37@gmail.com>; Jennifer Bush; SHARON KEENY; tilycog@comcast.net; cathydatz@yahoo.com; Richard Valentine; Belkacem Manseur; Alex Xu; Richard Taber; Phil Montag; <bstrickland@wtplaw.com>; ST Balimtas; Michael Burns; Paul Retzbach; <fernandesgj@washpost.com>; Eric Goldberg; <benabili@hotmail.com>; Rob Bovello; Paul Robertson; Michael Price; Doug Lee; Jay and Santa Bhalani; Ajay soodan; jmathew@acidd.us; Om Prakash Gupta; <jthensel61@gmail.com>; Benjamin Lee; <joelhouck66@yahoo.com>; Ty Shrader; sdwerlinich@aol.com; Williams; Z Zhang; Brian Lehman; Lisa Valentine; Denise Howze; Hafida Manseur; Ning Hu; dianawscases@gmail.com; Richard and Susan Taber; Marisa Montag; <estrickland@offitkurman.com>; Robin Balimtas; Kathy Burns; Home; Dahna Goldberg; Michelle Meney; <jmbovello@comcast.net>; Delia Velculescu; Annette Lober; rajput31@yahoo.com; Melissa and Larry Kramer; Jyoti Gupta; <s.hensel@live.com>; Carol Werlinich; Mirra Morris; Sally Ostrom; Karen K; Laurie Lehman; kf321jump@verizon.net; Paul Capodanno; Fred Hazeltine; China Williams; info@davidyungmann.com; walshforone@gmail.com; John Tegeris
Cc: Kittleman, Allan; CouncilMail; Ball, Calvin B; Terrasa, Jen; Weinstein, Jon; Sigaty, Mary Kay; Fox, Greg; Lazdins, Valdis; Gowan, Amy; Peter Jensen; pwood@baltsun.com; mdzwonchyk@baltsun.com; aburnett@wjz.com; Kim Dacey; sorman@sbgvtv.com; bzumer@sbgvtv.com; ambarnett@sbgvtv.com; andrew.green@baltsun.com
Subject: CB21-2018: A Really Bad Idea for Your Children's Safety...

Fellow Supporters

Here is another reminder of the real potential consequences the come with turning our rural roads into industrial through ways if County Executive Kittleman and Council Members Sigaty and Fox succeed in getting CB21-2018 passed into legislation.

We have been warning all of them of this risk for the past four years

but none have

taken these concerns for your children seriously. They have not been addressed in any way throughout the past four year ordeal that has arrived at this horrible bill, just as they have been dismissive of our other health risk concerns. Simply put, this is reckless and irresponsible leadership in Howard County. Can you imagine witnessing, as these parents did in Central VA a year ago, a tractor trailer truck running down your children as they crossed the street to board their school bus with yellow flashing lights, and in an instant your child is gone from your life

forever? From the Washington Post article below, here is the real basis for the concern and one of the major reasons we are fighting for your families to kill the bill CB21-2018:

"The driver of the tractor-trailer braked, but the vehicle, loaded with 75,000 pounds of mulch and traveling downhill, hit the children before it could stop."

The truck driver was not found to be at fault, even though the children were crossing the road to a school bus with yellow lights, but not yet red. The reality of the situation is that there was no egregious error, and yet two children were still killed in front of their mothers and other children because a tractor trailer was carrying such a heavy load of mulch that it simply could not stop in time.

Why Kittleman, Sigaty and Fox don't think this could happen to your children is beyond me. Please email each of them to justify their positions and ask what facts they have, or what assurances they can make, that their actions will not result in any risk to the lives of your children. Their email addresses are listed below. If you agree, please email to voice your concerns, and also sign up to testify on Apr 16. Let's let the Council know that this is not acceptable to your family.

Sign up online

to testify

by going to <https://cc.howardcountymd.gov> and clicking on the Testify icon on the upper right side of the screen (looks like a hand).

I pray that we can stop the madness before we are mourning a child fatality

tragedy

in Western Howard County.

Hope to count on your support as we fight for the health and safety of your children, and to see you on Monday

Apr 16 for the County Council Public Hearing

County Executive and County Council emails:

akittleman@howardcountymd.gov

mksigaty@howardcountymd.gov

gfox@howardcountymd.gov

jweinstein@howardcountymd.gov

cball@howardcountymd.gov

jterrasa@howardcountymd.gov

Remember to sign up to testify against CB21-2018. Many thanks.

John Tegeris, PhD

President, DRPS

https://www.washingtonpost.com/local/public-safety/two-va-children-struck-and-killed-by-tractor-trailer-as-they-approached-school-bus/2017/03/30/ca46f01e-1555-11e7-9e4f-09aa75d3ec57_story.html?utm_term=.86dadbdba594

Tractor-trailer strikes, kills two children as they run across road to school bus

Two children were struck and killed by a tractor-trailer Thursday morning when they ran across a road to board a school bus near the town of Dillwyn in central Virginia, officials said.

At about 7:40 a.m., officers responded to a report of a fatal crash in Buckingham County just north of Dillwyn, which is about 65 miles west of Richmond, the Virginia State Police said in a statement.

A tractor-trailer was traveling north on Route 15 when a Buckingham County school bus, with its yellow flashing lights activated, approached from the opposite direction to pick up a group of children, the statement said. As the bus slowed, two children ran across the road toward it. The driver of the tractor-trailer braked, but the vehicle, loaded with 75,000 pounds of mulch and traveling downhill, hit the children before it could stop.

The children, identified as Tori Perez, 5, and Jaiden Bartee, 6, died at the scene.

The tractor-trailer driver, a 66-year-old man from Dillwyn, has a valid commercial driver's license, according to police, and the tractor-trailer was in compliance with commercial vehicle regulations.

No charges will be filed, police said.

Sayers, Margery

From: Lambert Cissel <wlcissel@gmail.com>
Sent: Sunday, April 08, 2018 7:10 AM
To: James Nickel
Cc: County Executive - Allan H. Kittleman; County Executive - Dr. Calvin Ball; County Executive - Harry Dunbar; District 001 - Elizabeth 'Liz' Walsh; District 001 - Jon Weinstein; District 001 - Raj Kathuria; District 002 - John Liao; District 002 - Opel Jones; District 003 - Christina Rigby; District 003 - Greg Jennings; District 003 - Hiruy Hadgu; District 003 - Steven F. Hunt; District 004 - Deb Jung; District 004 - Ian Moller-Knudsen; District 004 - Janet Siddiqui; District 004 - Lisa Kim; District 005 - China Williams; District 005 - David Yungmann; District 005 - Jim Walsh; Governor Larry Hogan; CouncilMail; Kate Magill; MD Senate District 12 - Clarence K. Lam; MD Senate District 12 - Joseph 'Joe' Hooe; MD Senate District 12 - Mary Kay Sigaty
Subject: Re: CB 21-2018 Testimony - What is the Plan for Remediation?

I have been following this debate , and so far have never found out who is to benefit from this bill.

On Sun, Apr 8, 2018 at 6:47 AM James Nickel <james.nickel55@gmail.com> wrote:

Council Members,

There are health issues with the proposed legislation. You know that. They've been pointed out repeatedly for over four years. While I was more involved researching the airborne health risks of wood dust and fungal spores, I was also aware of the health risks of water contamination with heavy metals. The science shows us that wood dust and fungal spores in mulch and compost are measured in microns and can enter deep into the respiratory system. Unfortunately, the Office of the County Executive and the sponsors ignore that the science that shows those micron sized particles travel thousand of yards and think setbacks of a few hundred feet make a substantive difference. Cancer and respiratory disorders are the still valid. Water contamination with heavy metals can result in neurological disorders and cancer. This legislation does nothing to address that. This testimony focuses on the long term implications of possible water contamination and the liability exposure to the County.

The legislative process is such that every time this legislation is proposed, we're obligated to re-submit prior testimony. With that in mind, there are two pieces of testimony I offer in testimony. They can be found at the following links: [Groundwater Metals Contamination](#) and [Investigation of the Impacts to Groundwater Quality from Compost/Vegetative Organic Waste by Suffolk County, NY](#).

From page 82 of the Suffolk County Report

"Table 14 illustrates the analytes in the study that had concentrations reported in exceedance of a groundwater and/or drinking water standard, nine of which were metals (manganese, sodium, iron, thallium, arsenic, lead, copper, zinc, magnesium). Sodium, manganese, and iron exceeded a standard in the most number of wells (24, 22 and 22 wells respectively), and monitoring wells [PA-3](#), [PA-4](#) and PA-5 from Site # [11 \(Peconic Avenue, Medford\)](#) each had six different metals exceeding a standard.

Manganese exceeded the groundwater/drinking water standard of 300 ppb most consistently at significant concentrations. **Of the 233 groundwater samples analyzed for manganese, 34% (80) exceeded the standard, and 12% (27) had concentrations that were at least 10 times the standard. The well exhibiting the highest manganese concentration was MS-3 located at Site # [7 \(East Main St., Yaphank\)](#) with the top three profile levels reporting concentrations of 49,300 ppb, 31,500 ppb and 26,700 ppb (20-25 fbg, 30-35 fbg, and 40-45 fbg respectively).** Table 15 summarizes the manganese concentrations found at each site, and shows that each site had at least one downgradient well with a sample containing a manganese concentration in excess of the 300 ppb groundwater/drinking water standard."

These were the worst of the tested sites. All 11 tested sites had at least some groundwater contamination.

Let's pause for a moment for a question. When you have airborne pollutants it is possible to stop the activity that produces those pollutants. When the groundwater is contaminated stopping the contamination is insufficient. The groundwater/well water is contaminated and unsafe to drink. Which then begs the question. **What is the remediation plan in the event that the mulch and compost operations contaminate the water supply in RR or RC zoned areas?**

That question has been repeatedly been asked and been unanswered. **Is the thought by the County Executive, sponsors, and those that vote for this legislation that by the time that happens I'll be long gone and it will be someone else's problem?**

If you can't answer the question then perhaps you shouldn't expose residents to the risk and the county to the future liabilities.

Does anyone else smell a lawsuit in Howard County's future? I believe we're making excellent progress establishing gross negligence.

Best Regards,
James Nickel
Dayton, MD

Sayers, Margery

From: James Nickel <james.nickel55@gmail.com>
Sent: Sunday, April 08, 2018 6:47 AM
To: CouncilMail
Cc: County Executive - Allan H. Kittleman; County Executive - Dr. Calvin Ball; County Executive - Harry Dunbar; District 001 - Elizabeth 'Liz' Walsh; District 001 - Jon Weinstein; District 001 - Raj Kathuria; District 002 - John Liao; District 002 - Opel Jones; District 003 - Christina Rigby; District 003 - Greg Jennings; District 003 - Hiruy Hadgu; District 003 - Steven F. Hunt; District 004 - Deb Jung; District 004 - Ian Moller-Knudsen; District 004 - Janet Siddiqui; District 004 - Lisa Kim; District 005 - China Williams; District 005 - David Yungmann; District 005 - Jim Walsh; Governor Larry Hogan; Kate Magill; MD Senate District 12 - Clarence K. Lam; MD Senate District 12 - Joseph 'Joe' Hooe; MD Senate District 12 - Mary Kay Sigaty
Subject: CB 21-2018 Testimony - What is the Plan for Remediation?

Council Members,

There are health issues with the proposed legislation. You know that. They've been pointed out repeatedly for over four years. While I was more involved researching the airborne health risks of wood dust and fungal spores, I was also aware of the health risks of water contamination with heavy metals. The science shows us that wood dust and fungal spores in mulch and compost are measured in microns and can enter deep into the respiratory system. Unfortunately, the Office of the County Executive and the sponsors ignore that the science that shows those micron sized particles travel thousand of yards and think setbacks of a few hundred feet make a substantive difference. Cancer and respiratory disorders are the still valid. Water contamination with heavy metals can result in neurological disorders and cancer. This legislation does nothing to address that. This testimony focuses on the long term implications of possible water contamination and the liability exposure to the County.

The legislative process is such that every time this legislation is proposed, we're obligated to re-submit prior testimony. With that in mind, there are two pieces of testimony I offer in testimony. They can be found at the following links: [Groundwater Metals Contamination](#) and [Investigation of the Impacts to Groundwater Quality from Compost/Vegetative Organic Waste by Suffolk County, NY](#).

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That question has been repeatedly been asked and been unanswered. **Is the thought by the County Executive, sponsors, and those that vote for this legislation that by the time that happens I'll be long gone and it will be someone else's problem?**

If you can't answer the question then perhaps you shouldn't expose residents to the risk and the county to the future liabilities.

Does anyone else smell a lawsuit in Howard County's future? I believe we're making excellent progress establishing gross negligence.

Best Regards,
James Nickel
Dayton, MD

Sayers, Margery

From: John Tegeris <johntegeris@gmail.com>
Sent: Saturday, April 07, 2018 12:10 PM
To: Ted Mariani; Rick Lober/Annette; Brent Loveless; Stu Kohn; Rob Long; Preserve Dayton; Velculescu Victor; Jeff Harp; Jeff Harp; Luv of My Life; Tim Mayer; Mike Navarre/Lynn; Bethany Hooper; Rob Bundy; Dan O'Leary; Andrew Royle; Lisa Markovitz; Susan Garber; Carol Jane Gray; Ocheltree Janet; Erin Allen; John Allen; Al Risdorfer; Bono Tony V; Paul Morris; Paul Retzbach; Colleen Retzbach; Kristin Robertson; Lora Houck; Trip Kloser; Craig Ostrom; Julius Tunji Akintade; Chelakara Shankar; James Nickel; Banwarth Dave; dave.kromer@tunnellgov.com; Sylvie Leary; Alan Schneider; Paul Shoffeitt; Mike Bucci; Robert Scales; Katie Hester; Mike; Patricia Soffen; Joanne Heckman; <darbus37@gmail.com>; Jennifer Bush; SHARON KEENY; tilycog@comcast.net; cathydatz@yahoo.com; Richard Valentine; Belkacem Manseur; Alex Xu; Richard Taber; Phil Montag; <bstrickland@wtplaw.com>; ST Balimtas; Michael Burns; Paul Retzbach; <fernandesgj@washpost.com>; Eric Goldberg; <benabili@hotmail.com>; Rob Bovello; Paul Robertson; Michael Price; Doug Lee; Jay and Santa Bhalani; Ajay soodan; jmathew@acidd.us; Om Prakash Gupta; <jthensel61@gmail.com>; Benjamin Lee; <joelhouck66@yahoo.com>; Ty Shrader; sdwerlinich@aol.com; Williams; Z Zhang; Brian Lehman; Lisa Valentine; Denise Howze; Hafida Manseur; Ning Hu; dianawscases@gmail.com; Richard and Susan Taber; Marisa Montag; <estrickland@offitkurman.com>; Robin Balimtas; Kathy Burns; Home; Dahna Goldberg; Michelle Meney; <jmbovello@comcast.net>; Delia Velculescu; Annette Lober; rajput31@yahoo.com; Melissa and Larry Kramer; Jyoti Gupta; <s.hensel@live.com>; Carol Werlinich; Mirra Morris; Sally Ostrom; Karen K; Laurie Lehman; kf321jump@verizon.net; Paul Capodanno; Fred Hazeltine; China Williams; info@davidyungmann.com; walshforone@gmail.com; John Tegeris
Cc: Kittleman, Allan; CouncilMail; Ball, Calvin B; Terrasa, Jen; Weinstein, Jon; Sigaty, Mary Kay; Fox, Greg; Lazdins, Valdis; Gowan, Amy; Peter Jensen; pwood@baltsun.com; mdzwoonchyk@baltsun.com; aburnett@wjz.com; Kim Dacey; srorman@sbgvtv.com; bzumer@sbgvtv.com; ambarnett@sbgvtv.com; andrew.green@baltsun.com
Subject: CB21-2018 - A Horrible Bill for Howard County, Get Ready to Testify

Fellow Supporters,

Here is the first in a series of Notes from the President leading up to the Apr 16 County Council Public Hearing. At that hearing, we MUST have a strong turnout with many citizens testifying in opposition to CB21-2018. It is mind-boggling that County Executive Kittleman and Council members Sigaty and Fox, who were all elected into office to promote responsible, safe and high quality growth of one of the most desirable counties to live in in the country, could push forward such reckless mulch/composting zoning regulations.

The proposed CB21-2018 puts Howard County in a much worse position than CB20-2014, which is currently in effect. Simply put, CB21-2018 will allow for any farm in Howard County, including all ag preserve farmland, to become a satellite commercial landfill of either 3 to 5 acres, with the ability to truck in food waste, animal mortality and manure (Type 2 feedstock) for composting, as well as to truck out product for commercial sale (their new definition of legitimate farming). Also allowed is 1 to 5 acres of industrial mulch processing for commercial sale, making the situation even more dangerous for your families.

Now picture two farms that share boundaries and industrial/commercial interests, for example in Dayton, and we could see mulch/compost facilities 8-20 acres in size across two farms (I refer to this as stacking). When this happens, it will undoubtedly be labeled as "unintended consequences" that we will then need to spend time, energy and money to

"fix." Isn't it time to learn from the mistakes of the past and anticipate consequences BEFORE they become a hazard that puts families and children throughout western Howard County at serious risk?

To all Council Members supporting this bill, and to County Executive Kittleman who supported this bill at its inception and is now trying to distance himself from it: We will remember your actions throughout the upcoming election process, from start to finish.

Below is an excellent and accurate look at the facts written by David Banwarth and submitted as testimony opposing CB21-2018. Mr. Banwarth is a fire expert professional who has opposed industrial mulch/composting facilities from operating on the farmland since this problem arose in 2014. Please read and remember why we must remain active in opposing CB21-2018. Please forward this email to all others in your personal and professional networks within Howard County to spread the word. Many thanks.

Best,
John Tegeris, PhD
President DRPS

All Councilpersons, please consider this as my formal testimony concerning CB 21-2018.

I studied the composting allowances in CB 21-2018, and the companion MDE regulations, particularly as they would apply to ALPP. They are extremely threatening to our quality of life in Dayton and any similar areas. Of course, the composting threats are in addition to the well documented and dangerous industrial mulch grinding provisions of CB 21 to which I and many health professionals and subject matter experts have previously testified. Some particularly alarming composting aspects:

- Up to **3 acres** of Type 1 or Type 2 "Small" composting facilities are permitted.
- Type 2 composting materials include **rotting animal carcasses, "industrial" food processing materials, food scraps waste**, manure and bedding, and any other "**compostable products**". They can be piled up to 9 feet high per MDE regulations.
- The amount of sales is **unlimited**, for a farm with no currently ongoing ALPP payments, like the Dayton Orndorff farm which adjoins existing rural subdivisions.

What is proposed by sponsoring Councilpersons Fox and Sigaty is the allowance of 3 acres of rotting animal carcasses, food waste, and trash into the middle of our residential community (and similar ones throughout Western Howard County). Toxic pathogens, aquifer and groundwater contamination, rodent infestations, stench, and constant trucking of unlimited waste is proposed in this CB. Even the MDE regulations, describe food waste as "Industrial" waste. It cannot be any clearer that this does not belong outside of M1/M2 zoned land.

I cannot imagine how any Councilpersons could possibly sponsor such reckless, irresponsible, and dangerous legislation. It is bad enough that Councilpersons Fox and Sigaty, along with Councilperson Weinstein, voted against County residents health and safety to allow industrial mulch manufacturing in the midst of our rural communities during the last legislative cycle. Now, they apparently want to take it even a step further in their ongoing war against residents health and safety.

In contrast, I appreciate Councilpersons Ball and Terrasa's thoughtful regard for citizen's safety in the past and wish other Councilpersons can do the same regarding the threats to public safety contained in CB 21-2018. I also appreciate County Executive Kittleman removing himself as requesting the legislation during this legislative cycle and propose that he **veto CB 21-2018** if it reaches his desk to rectify his original request for this dangerous legislation.

Please do the following regarding CB 21-2018:

1. **Eliminate Tier 2 composting provisions proposed for any proposed zoning category other than M1/M2.** They do not belong outside M1/M2 due to the hazardous and noxious nature.
2. **Tier 1 composting on other than M1/M2 should be limited to "from the farm - for the farm", with no trucking of materials onto or off of the site, except occasional transport to other farms for "on the farm" use there, with no commercial sales beyond that point.**
3. **Eliminate proposed mulch manufacturing from other than M1/M2 zones (as is current law).** The many hazards associated with this industrial practice are well documented and by their very nature need to be limited to M1/M2 zones. Even a 1 acre mulch manufacturing operation is dangerous to communities health and safety, can damage the aquifer, contaminates air quality, poses severe fire risk, causes noise and odors, and reduces the quality of life in surrounding neighborhoods. It belongs only on M1/M2, as per the current law.

4. Honor the easements and covenants established on Ag Pres contracts and limit all operations there to agricultural uses and currently approved accessory uses (as per the easement requirements and the current regulations - i.e. wineries, hair salons, and other currently allowed accessory uses). Mulch manufacturing is not agriculture by MDE definition and is hazardous. No uses currently within M1/M2 should not be moved onto Ag Pres lands according to the easement contracts established with our Ag Pres payments, which run with the land recordations and apply in perpetuity. Doing otherwise would violate those pre-recorded easement restriction contracts, violate the public trust, and may well subject the County to liabilities and damages.

Rest assured all Councilpersons and County Executive Kittleman that your vote/actions will be remembered beyond this Bill into upcoming elections, both local and Statewide, going forward.

Thank you, please do the right thing to protect residents,

David Banwarth
Dayton, MD

Sayers, Margery

From: Lambert Cissel <wlcissel@gmail.com>
Sent: Friday, April 06, 2018 7:00 PM
To: James Nickel
Cc: County Executive - Allan H. Kittleman; County Executive - Dr. Calvin Ball; County Executive - Harry Dunbar; District 001 - Elizabeth 'Liz' Walsh; District 001 - Jon Weinstein; District 001 - Raj Kathuria; District 002 - John Liao; District 002 - Opel Jones; District 003 - Christina Rigby; District 003 - Greg Jennings; District 003 - Hiruy Hadgu; District 003 - Steven F. Hunt; District 004 - Deb Jung; District 004 - Ian Moller-Knudsen; District 004 - Janet Siddiqui; District 004 - Lisa Kim; District 005 - China Williams; District 005 - David Yungmann; District 005 - Jim Walsh; Governor Larry Hogan; CouncilMail; Kate Magill; MD Senate District 12 - Clarence K. Lam; MD Senate District 12 - Joseph 'Joe' Hooe; MD Senate District 12 - Mary Kay Sigaty
Subject: Re: CB 21-2018 Testimony - Preponderance of Negative Impact

I agree with you.

On Fri, Apr 6, 2018 at 6:46 PM James Nickel <james.nickel55@gmail.com> wrote:
Council Members,

Some years back I met a resident of Woodbine who lived across from the NWWRF that was operating across the street. That NWWRF was not permitted to operate in Howard County, nonetheless it operated for over 7 years.

While there were numerous complaints over those 7 years, at one point in time there was a consolidation of complaints/inspections requests prepared and sent to DPZ. There were 17 residents that complained of dust, noise, truck traffic, etc. going on 6 days a week sometimes late into the evenings. Not only were people negatively affected but farm animals were affected as well. Farm animals don't have the option of going indoors and closing the windows to escape the dust and noise.

This can't be categorized as typical farm activities when farmers are also filing the complaints. This is an activity that goes well beyond that. It denies residents the ability to open their windows and sit outside to enjoy a rural atmosphere 6 days a week into the late hours. There were residents who said their windows rattled due to the noise levels.

17 people, and most likely more, were penalized for the benefit of one operator.

As a mathematician and systems engineer I know how to research and examine data. I spent an entire career doing so. I obtained copies of the inspection requests, examined the data, and plotted locations on a map. I compared the complaints against known ill effects of the types of "dust" that were released in that kind of operation. I urge you to review the presentation I made at that time. It is available at this link: [Dust and Fungi](#)

I'll note that farmers have survived in Howard County for a very long time without CB 21-2018. "Long time" as in since before there was a Howard County. Only 4 years ago did this "need" arise. Farmers have been composting and mulching on their own farms as needed without CB 21-2018. They are doing so today.

I recall one working session 4 years ago when more farmers showed up to oppose the legislation than showed up to support it. They don't consider it farming. Isn't this legislation really targeted at "farmers" who don't especially want to farm? Isn't this in fact an effort to support commercial-industrial operations on agricultural properties that have a low cost to entry [relative to M1/M2] under the cover of "helping farmers." When more farmers show up in opposition than in support, the claim of "helping farmers" rings hollow.

What does that result in? A business operation that has been restricted to M1/M2 zoned areas in the past would now be permitted in RC and RR zoned properties. For each single operation, how many residents might be negatively impacted? Perhaps 17 or more? What is it all for? Garbage Recycling.

Is it worth it? I can't imagine how anyone can answer that with a Yes.

Regards,
Jim Nickel
Dayton, MD

Sayers, Margery

From: James Nickel <james.nickel55@gmail.com>
Sent: Friday, April 06, 2018 6:46 PM
To: CouncilMail
Cc: County Executive - Allan H. Kittleman; County Executive - Dr. Calvin Ball; County Executive - Harry Dunbar; District 001 - Elizabeth 'Liz' Walsh; District 001 - Jon Weinstein; District 001 - Raj Kathuria; District 002 - John Liao; District 002 - Opel Jones; District 003 - Christina Rigby; District 003 - Greg Jennings; District 003 - Hiruy Hadgu; District 003 - Steven F. Hunt; District 004 - Deb Jung; District 004 - Ian Moller-Knudsen; District 004 - Janet Siddiqui; District 004 - Lisa Kim; District 005 - China Williams; District 005 - David Yungmann; District 005 - Jim Walsh; Governor Larry Hogan; Kate Magill; MD Senate District 12 - Clarence K. Lam; MD Senate District 12 - Joseph 'Joe' Hooe; MD Senate District 12 - Mary Kay Sigaty
Subject: CB 21-2018 Testimony - Preponderance of Negative Impact

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Is it worth it? I can't imagine how anyone can answer that with a Yes.

Regards,
Jim Nickel
Dayton, MD

Sayers, Margery

From: James Nickel <james.nickel55@gmail.com>
Sent: Wednesday, April 04, 2018 8:31 AM
To: CouncilMail
Cc: County Executive - Allan H. Kittleman; County Executive - Dr. Calvin Ball; County Executive - Harry Dunbar; District 001 - Elizabeth 'Liz' Walsh; District 001 - Jon Weinstein; District 001 - Raj Kathuria; District 002 - John Liao; District 002 - Opel Jones; District 003 - Christina Rigby; District 003 - Greg Jennings; District 003 - Hiruy Hadgu; District 003 - Steven F. Hunt; District 004 - Deb Jung; District 004 - Ian Moller-Knudsen; District 004 - Janet Siddiqui; District 004 - Lisa Kim; District 005 - China Williams; District 005 - David Yungmann; District 005 - Jim Walsh; Governor Larry Hogan; Kate Madill; MD Senate District 12 - Clarence K. Lam; MD Senate District 12 - Joseph 'Joe' Hooe; MD Senate District 12 - Mary Kay Sigaty
Subject: Draft - CB21-2018 Testimony - Another Lesson Learned

To be submitted as testimony for CB21-2018

- Exigent Fire Protection Service - On 24 March, 2018 a property owner on Jennings Chapel Rd started a fire to get rid of a large pile of wood waste. There was no permit for the fire and he departed the property shortly after he started it. Calls were made to 911 that Saturday and Sunday. The Fire Marshall was frustrated enough by the resident that he suggested the resident should read the Fire Code. That fire continued to burn or smolder producing smoke that managed to find it's way to a horse barn on an adjacent property. Daily calls to 911 and various calls to Howard County officials were made by one resident. The resident was informed by a Fire Marshal that Fire Services could not put out the fire because the gate to the property was locked and it wasn't an exigent circumstance. Thus, they could not put out the fire due to the 4th amendment rights of the property owner where the fire was burning. This continued until the afternoon of 29 March. For six days that fire continued to burn.

If CB21-2018 is approved It's only reasonable to expect at some point there will be mulch fire in some rural area. I suppose according to the Fire Code, the fire services will extinguish the fire IF it is an exigent circumstance where the imminent life of residents or property is being threatened.

I assume that the County Executive and Council members that voted to approve last year's version of this bill are fully aware of this nuance of the Fire Code and don't really care. If they did, this wouldn't be allowed on RR or RC properties in the County. It seems that the County Executive and Council members have a higher priority for garbage dump recyclers than they to the residents.

Do you really think that you can put the health, safety and property values of residents at risk and we will accept or forget it?

Best Regards,
James Nickel

Sayers, Margery

From: John Tegeris <johntegeris@gmail.com>
Sent: Monday, March 26, 2018 6:15 PM
To: CouncilMail; Kittleman, Allan; Lazdins, Valdis; Gowan, Amy; Peter Jensen; pwood@baltsun.com; mdzwonchyk@baltsun.com; aburnett@wjz.com; Kim Dacey; srorman@sbgvtv.com; bzumer@sbgvtv.com; ambarnett@sbgvtv.com; Ted Mariani; Rick Lober/Annette; Brent Loveless; Stu Kohn; Rob Long; Preserve Dayton; Velculescu Victor; Jeff Harp; Jeff Harp; andrew.green@baltsun.com; John Tegeris
Cc: Tim Mayer; Mike Navarre/Lynn; Bethany Hooper; Rob Bundy; Dan O'Leary; Andrew Royle; Lisa Markovitz; Susan Garber; Carol Jane Gray; Ocheltree Janet; Erin Allen; John Allen; James Nickel; Banwarth Dave; dave.kromer@tunnellgov.com; Sylvie Leary; Alan Schneider; Paul Shoffeitt; Katie Hester; Mike; Patricia Soffen; Joanne Heckman; <darbus37@gmail.com>; SHARON KEENY; tilycog@comcast.net; cathydatz@yahoo.com; kf321jump@verizon.net; Paul Capodanno; Fred Hazeltine
Subject: Mulch Bill CB21-2018, Worse Than Ever: Time to Rally the Troops

Fellow Supporters,

It is time once again to mobilize quickly. As you know, horrible bill CB60 passed Nov 6 but was nullified due to the County Council unknowingly going beyond the statutory requirement of 125 days to vote on the bill (expired Nov 5), which set a repeat process in motion early in 2018. The Planning Board recently voted unanimously to go forward 'as is' with ZRA-183 filed again by bill sponsors Sigaty and Fox, which is essentially CB60 but with a few notable changes.

One key omission is that County Executive Kittleman, whose name was on the previous ZRA/bill and presented to the County Council through DPZ on his behalf, decided to remove his name from the current one. Interesting timing given that elections loom large and he is now fully aware that thousands oppose this bill and that we will all vote again soon. Could he be growing concerned that broken campaign promises on our mulch issue will come back to haunt him during the elections? You bet, and we intend to remind him of this fact all the way up to the polls when we vote in November should this new mulch bill CB21-2018 pass 'as is'.

Allan Kittleman has turned his back on you. He has put the welfare and quality of life at risk for potentially thousands of families, and voters, across Howard County due to the well-documented health and safety risks associated with industrial mulching and composting. Simply put, the current County Executive can run (literally) but he can't hide. We will not let him quietly slip away from owning this bill, one that puts thousands of children/families at risk. This is cowardice, with a capitol 'K'.

We just signed on the Law Offices of Katherine Taylor with a sizeable retainer financed through recent donations. We stand ready to take immediate legal action should CB21-2018 pass in its current form. If this occurs, we will file suit against Howard County and County Executive Kittleman.

In the coming days and weeks, we will be calling on our support base raise more funds for the legal battle that likely lies ahead, in representing each of your families in this fight. We fought back in 2014 when the collective community effort rising up together won the good fight with passage of current mulch bill CB20-2014. These funds will also be used for the elections, to bring light and name recognition to those running for office that have supported us, such as Councilmember Dr. Calvin Ball who recently announced his candidacy for County Executive, and to cast a shadow on those that have worked against us, such as Councilmember Jon Weinstein running again for County

Council, and Mary Kay Sigaty who will be in the race for Maryland State Senate. We will also support their opponents, should they take an active position to support our opposition to CB21-2018.

Over the next two weeks, we will be putting out a series of shorter Notes from the President to detail what everyone who is still engaged in our fight and willing to do their part will need to know. These Notes will detail what is inherently wrong with CB21-2018, to remind you of the real and evidence-based health and safety risks associated with industrial/commercial mulching and composting, what has transpired over the past few months, and what our strategy will be this go-round. We will spell out specifically what swift action must be taken by all between now and the Council Public Hearing planned for Mon Apr 16, where we will once again testify in opposition to CB21-2018, and the Legislative Session likely on Mon Apr 30 when the Council will vote on the fate of industrial/commercial mulching and composting throughout Howard County.

Past performance is, unfortunately in this case, a good predictor of future events. Thanks to County Executive Kittleman, CB21-2018 bill sponsors Sigaty and Fox, and an ineffective DPZ, the deck is stacked against us once again, as it has been since the start of the Mulch Task Force in July 2014 all the way through failed passage of CB60-2017, and up to where we find ourselves once again, for the moment. We will need to do everything we accomplished together in 2014 and during our successful attempts in July 2017 to delay their plan to rush the vote by us for CB60 that same month. Will these delays ultimately work to our advantage? We hope so given we are now in election season and the stakes are higher for these candidates. One thing is for sure, we will be more aggressive than ever before. We hope to count on you for your support on many levels knowing that everyone remains concerned for their children, families and their communities should CB21-2018 pass in its current form. More to follow soon.

Thank you for also forwarding this Note, and those to follow, to family, friends and colleagues, as well as to your respective organization's membership. Many thanks.

Best,
John Tegeris, PhD
President, DRPS

Sayers, Margery

From: David M Banwarth <dmbanwarth@verizon.net>
Sent: Monday, March 26, 2018 4:57 PM
To: CouncilMail; Terrasa, Jen; Ball, Calvin B; Fox, Greg; Sigaty, Mary Kay; Weinstein, Jon; Kittleman, Allan
Subject: Testimony concerning CB 21-2018
Attachments: PROPOSED NEW COMPOSTING ALLOWANCES ON ALPP PROPERTIES BY CB 21-2018.pdf

All Councilpersons, please consider this (including the attachment) as my formal testimony concerning CB 21-2018.

I studied the composting allowances in CB 21-2018, and the companion MDE regulations, particularly as they would apply to ALPP. They are extremely threatening to our quality of life in Dayton and any similar areas. Please see the attached analysis regarding composting. Of course, the composting threats are in addition to the well documented and dangerous industrial mulch grinding provisions of CB 21 to which I and many health professionals and subject matter experts have previously testified.

Some particularly alarming composting aspects:

- Up to **3 acres** of Type 1 or Type 2 "Small" composting facilities are permitted.
- Type 2 composting materials include **rotting animal carcasses, "industrial" food processing materials, food scraps waste**, manure and bedding, and any other "**compostable products**". They can be piled up to 9 feet high per MDE regulations.
- The amount of sales is **unlimited**, for a farm with no currently ongoing ALPP payments, like the Dayton Orndorff farm which adjoins existing rural subdivisions.

What is proposed by sponsoring Councilpersons Fox and Sigaty is the allowance of 3 acres of rotting animal carcasses, food waste, and trash into the middle of our residential community (and similar ones throughout Western Howard County). Toxic pathogens, aquifer and groundwater contamination, rodent infestations, stench, and constant trucking of unlimited waste is proposed in this CB. Even the MDE regulations, describe food waste as "Industrial" waste. It cannot be any clearer that this does not belong outside of M1/M2 zoned land.

I cannot imagine how any Councilpersons could possibly sponsor such reckless, irresponsible, and dangerous legislation. It is bad enough that Councilpersons Fox and Sigaty, along with Councilperson Weinstein, voted against County residents health and safety to allow industrial mulch manufacturing in the midst of our rural communities during the last legislative cycle. Now, they apparently want to take it even a step further in their ongoing war against residents health and safety.

In contrast, I appreciate Councilpersons Ball and Terrasa's thoughtful regard for citizen's safety in the past and wish other Councilpersons can do the same regarding the threats to public safety contained in CB 21-2018. I also appreciate County Executive **Kittleman** removing himself as requesting the legislation during this legislative cycle and propose that he **veto CB 21-2018** if it reaches his desk to rectify his original request for this dangerous legislation.

Please do the following regarding CB 21-2018:

1. **Eliminate Tier 2 composting provisions proposed for any proposed zoning category other than M1/M2.** They do not belong outside M1/M2 due to the hazardous and noxious nature.

2. **Tier 1 composting on other than M1/M2 should be limited to "from the farm - for the farm", with no trucking of materials onto or off of the site, except occasional transport to other farms for "on the farm" use there, with no commercial sales beyond that point.**

3. **Eliminate proposed mulch manufacturing from other than M1/M2 zones (as is current law).** The many hazards associated with this industrial practice are well documented and by their very nature need to be limited to M1/M2 zones. Even a 1 acre mulch manufacturing operation is dangerous to communities health and safety, can damage the aquifer, contaminates air quality, poses severe fire risk, causes noise and odors, and reduces the quality of life in surrounding neighborhoods. It belongs only on M1/M2, as per the current law.

4. **Honor the easements and covenants established on Ag Pres contracts and limit all operations there to agricultural uses and currently approved accessory uses (as per the easement requirements and the current regulations - i.e. wineries, hair salons, and other currently allowed accessory uses).** Mulch manufacturing is not agriculture by MDE definition and is hazardous. No uses currently within M1/M2 should not be moved onto Ag Pres lands according to the easement contracts established with our Ag Pres payments, which run with the land recordations and apply in perpetuity. Doing otherwise would violate those pre-recorded easement restriction contracts, violate the public trust, and may well subject the County to liabilities and damages.

Rest assured all Councilpersons and County Executive Kittleman that your vote/actions will be remembered beyond this Bill into upcoming elections, both local and Statewide, going forward.

Thank you, please do the right thing to protect residents,

David Banwarth

Dayton, MD

PROPOSED NEW COMPOSTING FACILITIES PERMITTED ON ALPP PROPERTIES BY CB 21-2018

CB 21 – Composting Facilities are to be Allowed as an Accessory Use on ALPP – 106.1, (pages 7-9)

SECTION 105.0 RR (Rural Residential) District

C. Accessory Uses

The following are permitted accessory uses in the RR District, except that only the uses listed in Section 106.1 shall be permitted on County preservation easements. More than o

SECTION 106.1: County Preservation Easements

C. Accessory Uses

1. ALPP Purchased Easements and ALPP Dedicated Easements

CB 21 – Composting Facilities on ALPP are to be subject to Section 128.0.I (page 11)

X. COMPOSTING FACILITIES, SUBJECT TO THE REQUIREMENTS OF SECTION 128.0.I.

CB 21 – Section 128.0.I, “Tier I or Tier II” Composting Facilities up to 3 acres to be Allowed on ALPP (pages 15-17)

SECTION 128.0: Supplementary Zoning District Regulations

- I. Permits for Special Farm Uses

9. COMPOSTING FACILITY

A TIER I OR TIER II-SMALL COMPOSTING FACILITY, AS DEFINED IN COMAR, IS PERMITTED AS AN ACCESSORY USE TO FARMING IN THE RC AND RR DISTRICTS PROVIDED THAT:

- A. THE COMPOSTING FACILITY SHALL NOT EXCEED THREE ACRES.

CB 21 – ALPP May Sell (Unlimited amounts of) Compost, provided no outstanding installment ALPP purchase agreement. (page 18)

IN ACCORDANCE WITH PARAGRAPHS C. AND D. OF THIS SUBSECTION 9, A FARMER WHO PRODUCES COMPOST IN EXCESS OF THE AMOUNT THAT MAY BE USED ON THE FARMER’S FARM IN ACCORDANCE WITH THE NUTRIENT MANAGEMENT PLAN FOR THE FARM MAY SELL THE EXCESS COMPOST, PROVIDED THERE IS NO OUTSTANDING INSTALLMENT PURCHASE AGREEMENT FOR AN AGRICULTURAL LAND PRESERVATION EASEMENT ON THE PROPERTY, OR, IF THERE IS SUCH AN INSTALLMENT PURCHASE AGREEMENT, SALES MAY NOT EXCEED 5% OF THE TOTAL YEARLY PRODUCTION, AS REPORTED TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE).

What are MDE Tier Types 1 and Tier 2 “Small” (As Are To be Allowed on ALPP by CB 21) – Ref: “Permitting Guidance for Maryland Composting Facilities, June 12, 2015”, MDE

Tier 1	Tier 2 - Small
<ul style="list-style-type: none"> Composts only Type 1 feedstocks. 	<ul style="list-style-type: none"> Composts only Type 1 and Type 2 feedstocks. Produces ≤ 10,000 cubic yards of compost per year.

What Feedstock Types Permitted are permitted by MDE on Tier 1 and Tier 2 “Small” – This includes Industrial Food Processing Materials, Food Scraps, Animal Mortalities, and any “Compostable Products” (whatever that includes?)

Type 1	Type 2
<ul style="list-style-type: none"> Yard waste 	<ul style="list-style-type: none"> Food scraps Non-recyclable paper Department approved animal manure and bedding Department approved industrial food processing materials Animal mortalities Compostable products

MDE Design Requirements for Composting facilities (Note that an “all-weather pad” is required).

Appendix C – Table of Major Design Requirements for Composting Facilities

Tier	Pad Requirements ^{1, 3}	Water Collection Requirements ¹
Exempt from CF Permit	None (but must avoid prohibited acts in COMAR 26.04.11.04)	None (but must avoid prohibited acts in COMAR 26.04.11.04)
NWW Composting	Subject to NWW regulations at COMAR 26.04.09 and conditions of the NWW Recycling Facility Permit.	<p>Stormwater: Manage in accordance with the Stormwater Associated with Industrial Activity General Discharge Permit and local stormwater and sediment and erosion control requirements.</p> <p>Subject to NWW regulations at COMAR 26.04.09 and conditions of the NWW Recycling Facility Permit.</p>
Tier 1	All-weather pad Slope 1-6% (except indoor facilities) Distance from water table 2 - 4 ft, depending on location within coastal plain province and other factors.	<p>Stormwater: Manage in accordance with the Stormwater Associated with Industrial Activity General Discharge Permit and local stormwater and sediment and erosion control requirements.</p>
Tier 2 – Small	All-weather pad Slope 1-6% (except indoor facilities) Distance from water table 2 - 4 ft, depending on location within coastal plain province and other factors. 6-inch carbon-rich substrate beneath active piles Active piles must be covered with one of the following: <ul style="list-style-type: none"> 6 inches compost 6 inches high-carbon material such as wood chips Synthetic cover Roof 	<p>Stormwater: Manage in accordance with the Stormwater Associated with Industrial Activity General Discharge Permit and local stormwater and sediment and erosion control requirements.</p>

¹ An applicant for an individual Composting Facility Permit may apply for a variance from one or more of these requirements for proposed facility designs that would be equally protective of the environment.

² “Covered” means that the feedstock and active piles are covered with a synthetic cover or tarp or the piles are under a roof, as long as the roof has a means of preventing run-on from contacting the materials (such as walls, berms, etc.)

³ Except where otherwise specified, the pad requirements apply to the feedstock receipt, feedstock storage, active composting, curing, and compost storage areas.

Sayers, Margery

From: James Nickel <james.nickel55@gmail.com>
Sent: Sunday, March 25, 2018 1:37 PM
To: CouncilMail
Cc: County Executive - Allan H. Kittleman; County Executive - Dr. Calvin Ball; County Executive - Harry Dunbar; District 001 - Elizabeth 'Liz' Walsh; District 001 - Jon Weinstein; District 001 - Raj Kathuria; District 002 - John Liao; District 002 - Opel Jones; District 003 - Christina Rigby; District 003 - Greg Jennings; District 003 - Hiruy Hadgu; District 003 - Steven F. Hunt; District 004 - Deb Jung; District 004 - Ian Moller-Knudsen; District 004 - Janet Siddiqui; District 004 - Lisa Kim; District 005 - China Williams; District 005 - David Yungmann; District 005 - Jim Walsh; Governor Larry Hogan; Kate Madill; MD Senate District 12 - Clarence K. Lam; MD Senate District 12 - Joseph 'Joe' Hooe; MD Senate District 12 - Mary Kay Sigaty
Subject: CB21-2018 - Mulch and Compost Legislation - Lessons learned
Attachments: Howard County Times - Letter to Editor 12 07 17.jpg

Council Members,

This is to be included as testimony for [CB21-2018](#)

I've been at this for nearly 4 long years. This has given me the opportunity to see the working processes of Howard County elected officials. I'm not sure that I would have ever moved here had I known how some elected officials hold residents in contempt. The favoritism towards businesses is overwhelming and wholly disregards the health and welfare of residents. I know many of us have lost patience presenting testimony the is ignored or dismissed out of hand.

- Speaking for the Howard County Executive, the Director of DPZ has stated in an open hearing that it is not their role to assess health risk. That's the role of the County Council. The County Executive is not concerned with the health of Howard County residents.
- While the prior ZRA's and Council Bills to CB21-2018 clearly indicated that the legislation was coordinated with the Howard County Health Department, it was not. I was initially suspect because the wording indicated that there was no formal concurrence. I have confirmation in writing that the Board of Health has not been involved since the original task force where they quite proudly say they recommended a change of the setback from 100 ft. to 200 ft. I suppose they imagine that change was effective in protecting residents from fungal spores and wood dust that would travel thousands of yards through the air.
- The Howard County Health Department refused to investigate the health complaints in Woodbine that residents believed were caused by the illegally operating NWWRF. Refused. The Health Department representative to the Mulch Task Force explained why. He said if they found a cause and effect between that operation and health issues there was no regulation they could enforce. Every contact I had with the Health Department

pleading for them to investigate was always received with a "We care." Just not enough to look into it.

- I've learned of the difficulty of enforcement of an unallowed NWWRF in Howard County because of "magically disappearing trucks." Yes, those words are an exact quote from the Director of DPZ who represents the County Executive. On the other hand, DPZ can issue a violation for having a Veterinary Clinic in an empty building operated by a Veterinarian who lives in another state. They "see" things that aren't there and can't see things because they magically disappear.
- The Director of DPZ has also stated that the General Nuisance Requirements of the code apply. However, when ask by a resident of Woodbine how many people have to complain, the Director of DPZ said he doesn't care if it's 1,000 he's not in Public Relations.
- The Director of DPZ stated his inspectors are not capable measure the height of a pile of mulch or acreage. Apparently, they are unfamiliar with an instrument called a measurement stick. I've also learned in a separate instance that DPZ inspectors are not competent to measure the size of a shed. I suspect this is something that makes Allan Kittleman quite proud of employing highly trained inspectors.
- I've seen Council Member Sigaty claim that proposed legislation does not allow industrial mulching. When provided with MDE data that proves otherwise she is silent and maintains her claim. Even giving her the benefit of the doubt that her original claim was out of ignorance, it's quite clear that Council Member Sigaty just lies.
- Council Member Sigaty also claims that a rectangular section of compacted stone is "soil conservation." I believe that establishes the Rt. 32 widening as a "soil conservation" effort as well. I suppose that might explain why Council Member Sigaty declined to answer my question about what Maryland agricultural products are best grown on compacted stone. Even the Head of the Farm Bureau was stumped with that question. I believe that compacted stone can serve as an all-weather pad for composting rotting food waste and animal carcasses. But you probably know that.
- Council Member Sigaty claims that the MD Department of Agriculture asserts that compost and mulch are agricultural products. I did send her a link to the MD Department of Agriculture that lists agricultural products in MD. Compost and mulch weren't listed there. Nor were they listed at the USDA website as an agricultural product. I did find it listed by the State of Maryland as "refuse", i.e., garbage. Of course, Alpha Ridge land fill has compost and mulch. Which begs the question of which best describes Alpha Ridge Land Fill: 1. farm producing agricultural products or 2. a garbage dump?
- I've learned that Alpha Ridge has had mulch fires. Fortunately, a public water supply is available there to guarantee a continuous water supply, which has been deemed unnecessary for Rural Residential areas.

- I've learned from testimony on fire risk that mulch fires can be caused by spontaneous combustion and there have been multiple cases where interstate highways have been shut down due to those fires. DPZ has responded to that testimony by requiring mulch facilities to abut an interstate highway. That's correct, a mulch fire can shut down an interstate and Council Members Fox and Sigaty and the County Executive decide the best place to put a mulch facility is right next to an interstate. Brilliant.
- I've heard Council Member Sigaty say she may not know as much about cancer as an oncologist from Johns Hopkins and ask if he was just briefing the same material as last time, suggesting she could ignore it if it was the same. He actually had more material, but there really was no indication that Council Member Sigaty [or apparently other members of the Council that ended up voting for the previous legislation] would accept the expert testimony of an oncologist. They preferred the "expert" testimony of Jeff Dannis who pointed out the wood dust in the furniture industry was at the micron size, but who knows, maybe mulch dust is larger? In fact, it's easy to find documentation that wood dust from mulch can also be measured at microns. Dust that can easily get deep in a person's air passages.
- I can tell you that one of the Mulch Task Force co-chairs told me and another person that he reviewed the oncologist's presentation and said "What difference does it make. It's [carcinogens] everywhere."
- I've learned that a study prepared by Suffolk County on the contamination of the ground water with heavy metals at wood waste and composting sites in that county was of no apparent concern to either the County Executive or County Council members that voted for the prior legislation. No one would even answer the question of what the remediation would be if rural water supplies were contaminated. Crickets.
- I asked Council Members Fox, Sigaty and County Executive about the Suffolk County report and assumed at that time that certainly they would have obtained an opinion from the Howard County Health Department. As indicated earlier that was a mistake in judgement on my part. Little did I know back then that it was not the job of our County Executive to be concerned about health risks. I wrote several pieces of correspondence to the County Executive, eventually I did receive some correspondence in return, though it had nothing to do with anything I wrote to him about. What I got was a pat on the head and referred to a "Fact Sheet" prepared by DPZ. That fact sheet was filled with errors and vague claims which I refuted in writing. No reply to that either.
- The DPZ said they would do water tests. They didn't say what or when those water tests would be conducted. They said they do soil testing. They didn't say what those tests would be or when conducted.
- Perhaps one the most amazing pieces of this proposed regulation is an operator who obtained approval has two full years to comply. You can interpret that as the operator can ignore the regulations for two full years. What happens if after two years, they don't

comply? It doesn't say. I expect they will receive the standard violation notice that says they must correct the violations in a reasonable period of time. If they get two years to comply, that must be a reasonable time to come in compliance. So, do they get another two years to flout the regulations?

I would contend there is ample proof that the County Executive and Council Members that vote to approve this legislation are not fit to serve in any capacity as elected officials and should not be re-elected or elected to any new positions. We were slightly encouraged when the County Executive dropped as a sponsor of this legislation, but he also appeared to oppose it prior to the last election. We remember.

I've included all the candidates for who are running for public office in Howard County on distribution. They have my permission in any way they choose to use this correspondence to oppose any elected official that votes in favor of this legislation.

I'd like to make some brief comments about two of those candidates.

David Yungman. Mr. Yungman was asked on his Facebook page whether he supported mulch and composting in rural residential areas. Rather than answer that question he deleted it. Mr. Yungman, we have ample representation of elected officials who decline to answer questions about their positions. We are hoping for something different from our elected officials. We have been ignored and dismissed too many times.

Janet Siddiqui. Ms. Siddiqui was a member of the Board of Education. There was a movement on the part of the community to not have the contract of the School Superintendent renewed. Ms. Siddiqui was part of the majority that voted first, to not allow other Board members who opposed the renewal to speak and then voted to renew the contract. Then the school board took the unusual step of paying to terminate the Superintendent's contract, as reported in the Baltimore Sun article below. This is what it cost Howard County taxpayers.

[Howard County board pledged to pay Foose \\$1.65 million package to step down as school superintendent](#)

For the 2016 election cycle not a single member of the Board of Education who voted for the renewal of Superintendent's contract was re-elected. WE VOTED EVERY ONE OF THEM OUT. I believe that those who vote in favor of, or support CB21-2018, will face the same consequences that face Janet Siddiqui. We remember.

I have also attached a letter to the editor published in the Howard County Times for those that may not have seen it.

Council Members Calvin Ball and Jen Terrasa have listened and have both asked good questions. Both Council Members have written in response to my emails and I thank them.

Regards,

James Nickel

bcc: 136 Howard County Residents

LETTERS

The fallout from allowing large mulch operations

After hearing testimony from dozens of concerned medical professionals, subject matter experts and impacted residents, the Howard County Council passed Bill 60 anyway to allow hazardous industrial wood waste and mulch production on farmland, even including agricultural preservation farmland which had been supposedly protected against such commercial exploitation with expensive taxpayer-funded easements ("Passage of bills on mulching, APFO invalid," Nov. 9).

This legislation was requested by County Executive Allan Kittleman and sponsored by council members Mary Kay Sigaty and Greg Fox. Due to an administrative technicality, the recent passage was nullified until it can be reheard by the planning board and Howard County Council again. That effort is already underway by the same proponents who were joined by Councilman Jon Weinstein in recent voting. Council members Calvin Ball and Jen

Terassa have been the only voices of reason in actually caring about residents safety.

Deep-pocketed industrial special interests are placed squarely ahead of resident's safety by this legislation. Ms. Sigaty, Mr. Fox and County Executive Kittleman claim that this does not allow industrial scale facilities.

The facts clearly prove otherwise.

Neighboring residents to these proposed facilities will be subjected to endless heavy truck traffic, commercial grinding and processing noise, hazardous endospores and other particulate emissions, potential drinking water leachate contamination, fires and other documented hazards. These hazards are not speculative but have occurred and are well documented at many other such sites.

This is not about "farming" as some would falsely claim. In fact, many alarmed Howard County farmers have testified against this attempted despoiling of farmland. Mr. Kittleman's reelection slogan of "People Before Politics" rings hollow as he instead places deep-pocketed special interests ahead

of the safety of county residents.

Factual testimony has not mattered to the proponents in their quest to move these facilities from industrially zoned properties (where they are currently permitted and rightly belong) into the midst of residential communities anywhere in Howard County.

Stench, noise, dust and tractor-trailers may soon be coming to your residential neighborhood courtesy of Mr. Kittleman, Mr. Fox, Ms. Sigaty (and now Mr. Weinstein), as they railroad this legislation again.

David Banwarth
Dayton

Sayers, Margery

From: Lambert Cissel <wlcissel@gmail.com>
Sent: Monday, January 29, 2018 8:47 AM
To: James Nickel
Cc: Kittleman, Allan; CouncilMail
Subject: Re: ZRA 183 and Enforcement

I agree with you.

On Mon, Jan 29, 2018 at 8:39 AM James Nickel <james.nickel55@gmail.com> wrote:

ZRA 183 is unique in the respect that the sponsors and DPZ have built in a provision to allow the permitted facility to violate this regulation. Perhaps DPZ felt they were bothered too many times in over 7 years by the residents of Woodbine.

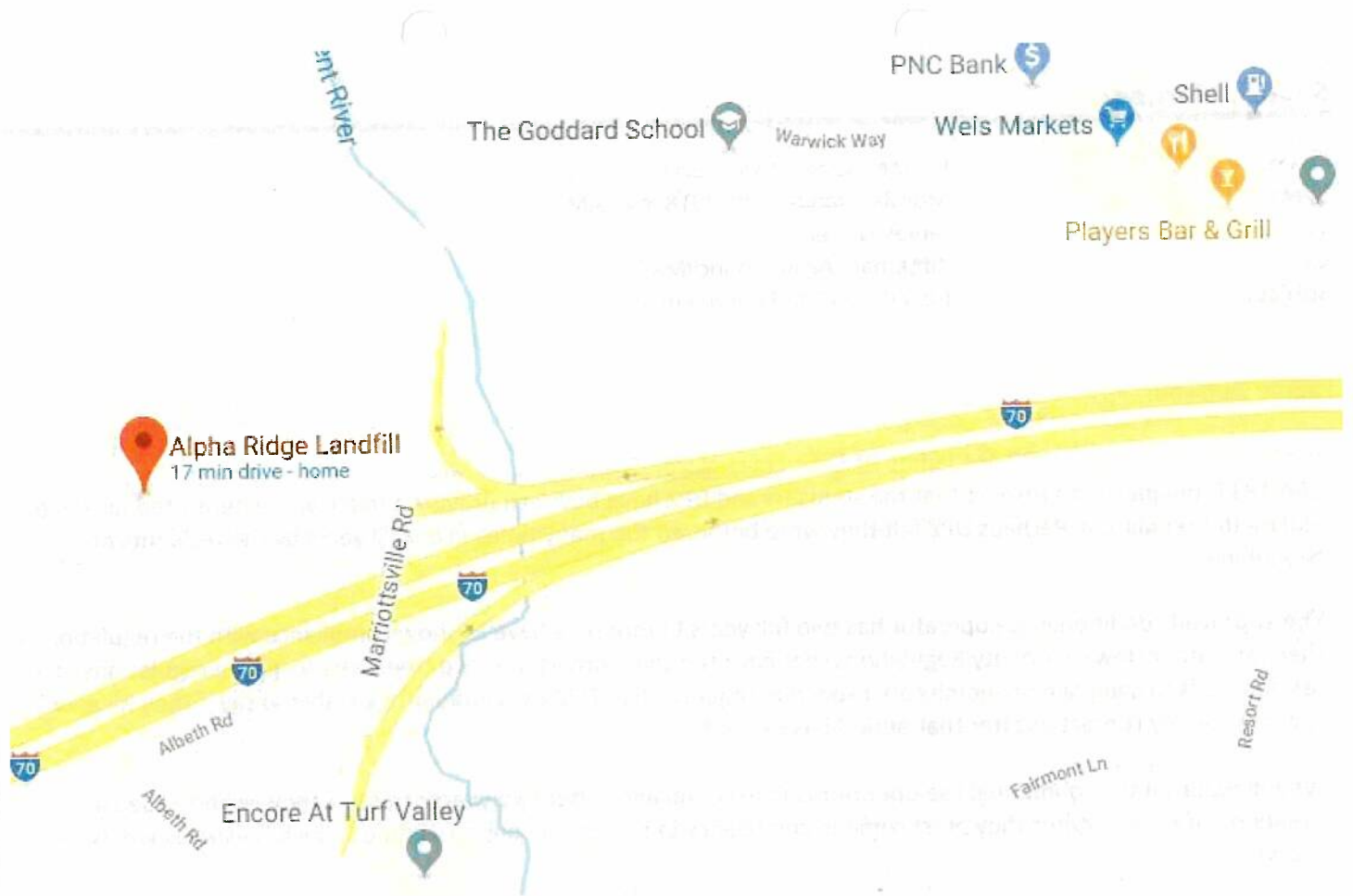
The approved conditional use operator has two full years before they have to show compliance with the regulation. Are there any other Howard County Regulations that have the same provision? Two free years to ignore regulations. If a resident calls to complain or submits an inspection request, then DPZ will confidently be able to say. "They have two years to comply contact us after that period has expired."

What happens if the conditional use operator isn't in compliance after two years? I expect they will be issued a violation notice that states they must come in compliance in reasonable period of time. Which is established as two years.

How does one even think of that provision unless you expect and want to allow the regulation to be ignored for at least two years?

Do the sponsors of ZRA 183 and DPZ think that the residents of Woodbine were lying all those years when they submitted complaints? Were they all lying? Did they fantasize the dust, noise and respiratory illnesses that would come and go when the facility across the street was in operation? They put up with it for over 7 years and the operation was never even allowed. BTW, Oak Ridge Farms is appealing the cease and desist order. No reason to appeal unless you plan to continue to operate under the same conditions that were impacting Woodbine. This regulation will make it easier for him.

There were some questions/comments during the Planning Board meeting about Alpha ridge. Look at the satellite view of the **Alpha Ridge Land Fill and Farm**. [We know it's a farm, because it produces compost which is an agricultural product). Look at the tree lines and think about the direction of the prevailing winds. The winds blow across Marriotsville Rd and across a golf course. On a straight line eastward from Alpha Ridge it's ~3/4 mile before you hit a residence.



What happens if the ground water is ever contaminated at Alpha Ridge. Unfortunate, but the area is on public water so the consequences are not catastrophic. What is the consequence and the remediation if the ground water in RR and RC is contaminated with heavy metals? ~"We kinda think that probably won't happen even though we know it does happen. Better not to talk about it." is not an acceptable answer. A significant part of my career involved risk management. When the consequences of failure are high, you have to take extraordinary means to properly manage that risk. This regulation fails in that regard.

Re: Compost is an agricultural product like corn? Ms Sigaty compares corn to compost. Would you like to share your favorite recipes for compost muffins? She states that it is approved by a chemist. I'm trying to think of other agricultural products that are approved in state by a chemist. Perhaps classifying compost as an agricultural product is not an corn cob to corn cob comparison?

The USDA doesn't list it as an agricultural product.

https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=MARYLAND

Maryland doesn't list it here.

[Maryland Agriculture, Farm Revenue](#)

Maryland does list it here:

[Solid Waste Management and Recycling in Maryland](#)

Waste Management, aka garbage recycling.

To the question from a Planning Board Member. Can you have a regulation that is acceptable? You bet you can. There was testimony last year that it can be done and how. Mr. Kittleman recently signed a contract with a company in Italy

that does it. There are companies in the US that build facilities that will process compost and mulch 365 days a year safely. The petitioners and DPZ choose to ignore that.

Is garbage management the savior of the agricultural industry in Howard County? My recollection is that Howie Feaga stated that the average farm in Howard County average \$105K in revenue with \$100K in expenses. \$100K is about the average household income for Howard County. Does garbage management make farming profitable. Only if you pretend that compost and mulch are farming products. Looking forward to the Howard County Fair competitions of who gets the blue ribbons for compost and mulch.

If you look at the USDA link way at the bottom, it notes that the net income for farms in Maryland is \$38,920/farm. As pitiful as that is, it's almost 8 times higher than for Howard County. I don't think it's because of mulch and compost. Unfortunately, the agricultural preservation program destroys the underlying value of farm land and it's larger usefulness. A well intentioned program that is trying to save an industry in MD and Howard County that isn't profitable. Paying cash for an easement doesn't make farming profitable. It delays the inevitable or turns it into a full time recycling garbage dump. Are you going to tell next generation that you need to be a garbage recycling dump to continue to farm. I don't think that will be very appealing.

I'd like to thank Council Members Ball and Terrasa for their diligence in protecting the health, safety and way of life of Howard County residents. I hope that Council Member Weinstein will join them in the future.

Agricultural Preservation programs, garbage recycling dumps and amendments to the Right to Farm Act to allegedly discourage frivolous law suits against farmers that have no legal weight aren't saving farms. If you want to address environmental sustainability there are ways to do it safely and without the health risks. It's done in enclosed facilities.

Regards,
James Nickel

bcc: 138 Residents of Howard County

Sayers, Margery

From: James Nickel <james.nickel55@gmail.com>
Sent: Monday, January 29, 2018 8:39 AM
To: Kittleman, Allan; CouncilMail
Subject: ZRA 183 and Enforcement

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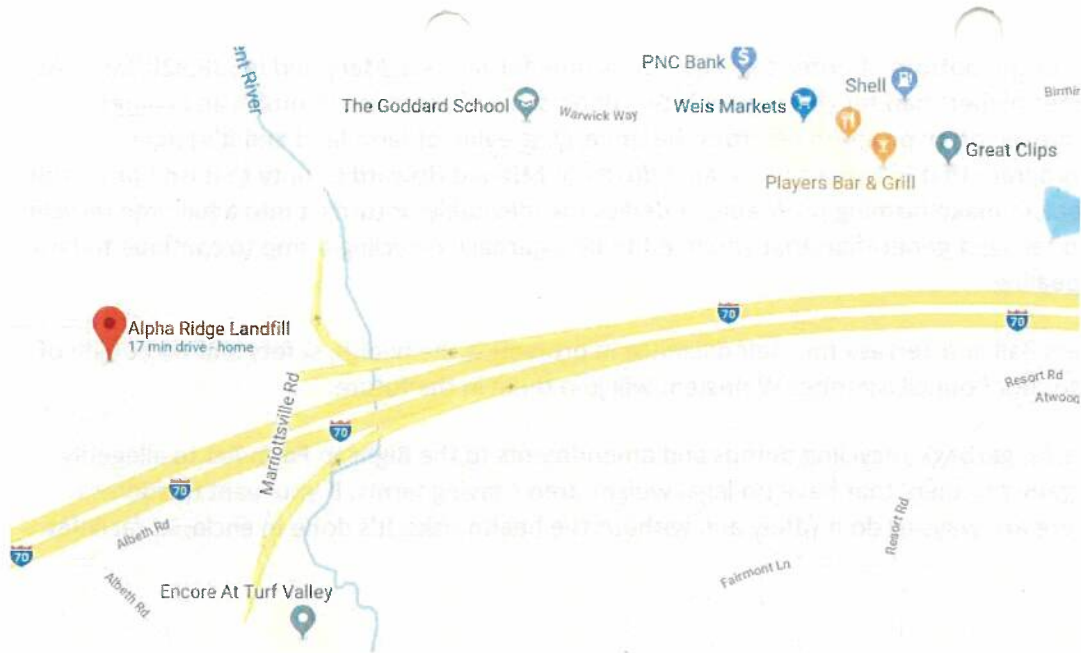
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Regards,
James Nickel

bcc: 138 Residents of Howard County

Sayers, Margery

From: Victoria <vstewartmo@aol.com>
Sent: Thursday, January 25, 2018 4:17 PM
To: CouncilMail
Subject: Request delay of CB60

Attention County Counsel,

There has been insufficient discussion and review of CB60 and the amendments to push forward with a vote. Request a delay so required considerations may be raised. To not do so and to move forward without adequate due diligence is negligent and maladroit on a bill, passage of which will negatively affect those of us who live close to or in the neighborhood of existing and potential mulching facilities.

Thank you for your consideration.

Respectfully,

Victoria Stewart-Moore
Jennings Chapel Rd
Woodbine, Md.

Sayers, Margery

From: James Nickel <james.nickel55@gmail.com>
Sent: Thursday, January 25, 2018 11:25 AM
To: Kittleman, Allan; CouncilMail
Cc: Kevin McAilley
Subject: ZRA 183 - Natural Wood Waste Recycling Facilities ("NWWRFs") and Composting Facilities ("CFs")

Mr. Kittleman and the County Council,

ZRA 180 [CB60-2017] was introduced last year at the request of Mr. Kittleman and cosponsored by Greg Fox and Mary Kay Sigaty. In spite of what may have been stated or inferred in ZRA 180, at no time did Mr. Kittleman, DPZ, or either Council Member seek the opinion or advice of the Howard County Health Department. The same applies to ZRA 183.

In retrospect, this is consistent with what the Director of DPZ stated at a Council hearing, that DPZ does not consider health risk. Since Council Members Mary Kay Sigaty and Greg Fox did not seek any advice or opinion from the Health Department when they had the opportunity, a reasonable person might also conclude those two council members had no interest in health risk.

It would be difficult to argue that this was an oversight. When ZRA 180 was being drafted, I notified the Office of the County Executive and those Council Members that Suffolk County had finalized their study showing that the vast majority of vegetative waste [mulch and compost] management sites in that County had well water contaminated by heavy metals. Those contaminants are well known to increase the risk of neurological disorders and cancer. On more than one occasion I asked if that study was referred to the Howard County Health Department and what comments they may have responded with. I never received a reply. I now know why; they never referred it to the Howard County Health Department. What excuse is there for drafting a regulation that has known health risks without seeking the advice of the Howard County Health Department?

The Howard County Health Department will acknowledge that health risks are complicated. To quote the Director, Bureau of Environment Risks ...*"evaluating "health risks" as they apply to these types of facilities, is a process that entails a number of factors – including level of exposure, duration and frequency (and many others), to try and determine these risks."* Who knew? Is the Health Department at all qualified to offer an opinion? Either they are not qualified in any way or the persons involved in the preparation of ZRA 180 don't want an opinion from a readily available resource.

The Director of the Bureau of Environment Risks further states the Task Force considered all that when they prepared the final report. Let me share with you the opinion of a co-chair of the Task Force that was offered to me during a break. *"I looked at Dr. Velculescu's presentation, what difference does it make? They [carcinogens] are everywhere."* A co-chair said that after only reading an advance copy. His decision was made before the presentation was even given.

The Director, Bureau of Environmental Risks also states, *"The County Council did evaluate these aspects via testimony from expert witnesses in an October 2017 workshop."* As mentioned earlier, the County Executive, nor DPZ, nor Greg Fox, nor Mary Kay Sigaty sought the opinion of anyone in the Health Department; not the Officer of the Health Department, not the Board of Health and not the Director of the Bureau of

Environmental Risks. The October meeting referred to above was originally scheduled for 11 Oct 2017, when Dr. Velculescu was able to attend. That schedule was changed to a date that Dr. Velculescu was unable to attend, 16 Oct 2017. Convenient.

There is a suggestion in ZRA 183 that the Howard County Health Department will enforce Health Regulations. During one Task Force meeting the Director of the Bureau of Environmental Health stated that all the requests I made to the Health Department to investigate the health complaints reported by Woodbine residents were rejected because there were no applicable health regulations to be enforced even if it was determined they could have been a result of the NWWRF operating in Woodbine. There are no regulations, he had no regulations to suggest and it was deemed best to not know whether the ill health effects reported by Woodbine residents were related to the NWWRF.

There is signed legislation by Gov. Hogan that requires the MDE to conduct a two-year study that includes the potential health risks. I've written to the MDE regarding that study, providing them a copy of both my presentation and the presentation of Dr. Velculescu on health risks. They reply in part, *"We also appreciated your enclosures to the PowerPoint slideshow by Dr. Victor [Velculescu] of Johns Hopkins University, which was a succinct summary of the potential hazards associated with wood dust. Although we have not yet examined his opinions from an epidemiological perspective, the concepts and evidence will also be considered during the HB171 study."* MDE is interested in the presentation by Dr. Velculescu, but apparently not anyone in Howard County Government.

After all the testimony, oral and written, and scientific peer reviewed studies documenting the health risks of airborne pollutants and potential water contamination, the Council passed CB60-2017. Fortunately for the residents of Howard County, it was nullified due to incompetence.

Now we have ZRA 183 before us. Sponsors are Council Members Mary Kay Sigaty and Greg Fox. Not appearing in this ZRA is County Executive, Allan Kittleman. **The only sponsors of ZRA 183 are officials not running for re-election.** Perhaps Mr. Kittleman wants his name off this legislation for good reason. It's a political liability to sponsor legislation that puts the health of Howard County residents at risk for garbage recycling while running for re-election. [Mr. Weinstein, you might want to read that paragraph again.]

The Director of DPZ has moaned about "magically disappearing trucks" being a problem with enforcement. He also claims these operations are also covered by the General Nuisance regulations, but he's stated he doesn't care whether 1,000 residents complain about the operation being a nuisance. What good are those regulations if he doesn't care how many residents consider this a nuisance?

Council Member Sigaty claims that this regulation doesn't allow industrial operations, even though I have provided her MDE documentation that shows a 5-acre site can product 60,000 tons of mulch per year. For visualization that is equivalent roughly to a pile of roughly 30,000 vehicles. I asked if 60,000 tons isn't "industrial" then what is? Refer back to this quote from the Director, Bureau of Environmental Risks, *..."evaluating "health risks" as they apply to these types of facilities, is a process that entails a number of factors – including level of exposure, duration and frequency (and many others), to try and determine these risks."* When a council member dismisses out of hand the size of the operation as being industrial it seems pretty clear that there has been a pre-determined outcome that needs "justification" whether true or not.

The evidence is clear. From the beginning of the Task Force and all the way through to ZRA 183, no sponsor of this rezoning regulation ever had the slightest interest in health risk to residents.

ZRA 183 is a proposal to make Howard County the vegetative garbage recycling capital of Maryland...*"evaluating "health risks" as they apply to these types of facilities, is a process that entails a number of factors."* I don't expect that pitching that to Amazon would have increased the chances of getting 50,000 new jobs and \$2B in MD infrastructure spending. Montgomery County gets on the short list for that opportunity. Meanwhile our County Executive and two Council Members not running for election are laser focused on making Howard County the vegetative garbage recycling capital of Maryland, while disregarding the health and safety risks to residents. How many new jobs will that create in Howard County? You will be running for re-election on that Mr. Kittleman, whether your name is attached to ZRA 183 or not.

Best Regards,
James Nickel
Dayton, MD

bcc: 135 Howard County Residents

Sayers, Margery

From: Sayers, Margery
Sent: Tuesday, January 23, 2018 3:42 PM
To: Sayers, Margery
Subject: FW: Thank you! ZRA 183

From: Trip Kloser [mailto:tripkloser@verizon.net]
Sent: Tuesday, January 23, 2018 2:37 PM
To: CouncilMail <CouncilMail@howardcountymd.gov>
Subject: Thank you! ZRA 183

Hello Mr. Kittleman,

I want you to know we will remember you and the other Howard County Council this coming November that supported CB 60.

I have been a lifelong strong Republican, and voted for you last election. But with your disregard for most of your Dayton constituents health and safety, I will be voting for Mr. Ball and Democrat this time.

Active Voters:
Trip & Karen Kloser

Sayers, Margery

From: no-reply@howardcountymd.gov
Sent: Monday, January 22, 2018 9:43 PM
To: don.howell05@gmail.com
Subject: Mulching Operations

First Name: Don

Last Name: Howell

Email: don.howell05@gmail.com

Street Address: 2918 Florence Road

City: Woodbine

Subject: Mulching Operations

Message: What is the current status of ZRA 183, Council Bill 60 (CB60), "Mulching operations in western Howard County" ?

Sayers, Margery

From: Kenneth Harman <kenbh2008@hotmail.com>
Sent: Saturday, January 13, 2018 7:46 PM
To: CouncilMail; Kittleman, Allan
Subject: Fw: DEFEAT ZRA183 and CB60 Type Legislation - NO MULCH OR COMPOST OPERATIONS on RC RR and Ag Pres properties.

I concur completely with the comments below:

Council Members Fox, Sigaty, Weinstein - Do NOT continue to attempt to destroy our residential communities with your proposed dangerous legislation that will poison our air and water, place our communities at risk of dangerous heavy truck traffic, and ruin our quality of life in rural areas. Keep mulch and composting on M1/M2 lands.
Council Members Ball and Terrassa - THANK YOU for your previous opposition to CB60, and your votes to protect our health and safety and quality of life. We hope we can count on you to continue to do so in this next round of legislation.
County Executive Kittleman - You have chosen to side against our health and safety and have broken your previous campaign pledge regarding mulch and compost on Ag Pres lands. We will remember at the voting booth and encourage others accordingly.

Ken Harman
2335 Woodbine Rd.
Woodbine Md. 21797

From: sunnyside1998@aol.com <sunnyside1998@aol.com>
Sent: Thursday, January 11, 2018 9:08 AM
To: velculescu@gmail.com; tomlokey@rocketmail.com; edwarfield@outlook.com; tmayer7@gmail.com; t2underwood@verizon.net; sheilajonz@gmail.com; sandylutes@verizon.net; rsuritis@gmail.com; rockstroh@aol.com; dchr23@aol.com; peter_patrone@yahoo.com; ALEXRYANPACHECO@gmail.com; danielol12832h@gmail.com; peapod30@hotmail.com; mgshaw1@verizon.net; debbiemeteyer@yahoo.com; tttraj@aol.com; lmarkovitz@comcast.net; lns377@gmail.com; shunlu88@yahoo.com; artklaunberg@verizon.net; kathleen.e@verizon.net; johncinsao@netscape.net; jasonhartner@gmail.com; kenbh2008@hotmail.com; gregorytg@verizon.net; gklaunberg@verizon.net; eric.conn@gmail.com; jleng1747@gmail.com; drivinghorses@gmail.com; donnersays@aol.com; devon.cordle@juno.com; skfarm@juno.com; cma2447@aol.com; tankercapt@aol.com; wlcissel@gmail.com; laurie.alderman6@gmail.com; pabel99075@aol.com; agintomboy@aol.com; ajs333@aol.com; DAtticks@comcast.net; jazztmb@cs.com; brentloveless@aol.com; cathydatz@yahoo.com; contact@chinawilliams.com; dmbanwarth@verizon.net; daytonsociety@gmail.com; jenikingdeuber@icloud.com; drsjbstewart@aol.com; james.nickel55@gmail.com; jenikingdeuber@gmail.com; jess4tigers@aol.com; johntegeris@gmail.com; madamoverseas@aol.com; martinsmac@aol.com; rick.lober@gmail.com; rml739@gmail.com; smithfam123@verizon.net; swatek1@yahoo.com; vstewartmo@aol.com; wjgallagher@mdgg.com
Subject: Fwd: DEFEAT ZRA183 and CB60 Type Legislation - NO MULCH OR COMPOST OPERATIONS on RC RR and Ag Pres properties.

-----Original Message-----

From: David M Banwarth <dmbanwarth@verizon.net>

To: CouncilMail <CouncilMail@HowardCountyMD.gov>; Allan Kittleman <akittleman@howardcountymd.gov>

Sent: Wed, Jan 10, 2018 5:24 pm

Subject: DEFEAT ZRA183 and CB60 Type Legislation - NO MULCH OR COMPOST OPERATIONS on RC RR and Ag Pres properties.

Council Members Fox, Sigaty, Weinstein - Do NOT continue to attempt to destroy our residential communities with your proposed dangerous legislation that will poison our air and water, place our communities at risk of dangerous heavy truck traffic, and ruin our quality of life in rural areas. Keep mulch and composting on M1/M2 lands.

Council Members Ball and Terrassa - THANK YOU for your previous opposition to CB60, and your votes to protect our health and safety and quality of life. We hope we can count on you to continue to do so in this next round of legislation.

County Executive Kittleman - You have chosen to side against our health and safety and have broken your previous campaign pledge regarding mulch and compost on Ag Pres lands. We will remember at the voting booth and encourage others accordingly.

Sayers, Margery

From: Victoria Stewart Moore <vstewartmo@aol.com>
Sent: Thursday, January 11, 2018 2:09 PM
To: CouncilMail
Subject: MULCHING

Dear Sir,

You started this mess with CB60 and you can end it. Western Howard County is no place for dumps which essentially this bill provides. If your intent is to get voted out of office, you've succeeded.

It's time to stand up for the law abiding residents and the farmers who make this splendid county a place where everyone wants to live, not a refuse dump.

Respectfully

Victoria Stewart- Moore
Stewart Farms
Jennings Chaired Rd
Woodbine

Envoyé depuis AOL Mail sur mobile

Sayers, Margery

From: Wade J. Gallagher <wjgallagher@mdgg.com>
Sent: Thursday, January 11, 2018 9:44 AM
To: CouncilMail; Kittleman, Allan
Subject: CB60

Do not change the zoning to permit this abuse of our western Ho Co environment. Once violated, like a virgin, it can never be restored.

I have lived in Ho Co longer than any of you and, those of you supporting this measure will be well remembered when the voting is to be done.

We, the silent majority, are getting tired of this constant distraction that has consumed so much time and effort to oppose the ambitions of your donors. Kittleman, I have voted republican forever, and, where you are concerned, that is about to change.

Wade J. Gallagher



Martell, Donnelly, Grimaldi & Gallagher, P.A.

11222 York Road

Second Floor

Hunt Valley, Maryland 21030

[410-771-0800](tel:410-771-0800)

facsimile: [410-510-1322](tel:410-510-1322)

This message contains information from the law firm of Martell, Donnelly, Grimaldi & Gallagher, P.A. that may be privileged, confidential or otherwise protected from disclosure. Unless you are the addressee or a person authorized to receive communications on behalf of the addressee, you may not use, copy or disclose to anyone the message or any information contained in the message. If you have received the message in error, please advise the sender and delete the message.

Sayers, Margery

From: Theresa Marrow <tmarrow@umbc.edu>
Sent: Thursday, January 11, 2018 9:05 AM
To: CouncilMail
Subject: ZRA183 - Mulch Bill

Dear Howard County Council Members:

I'm writing to state my opposition to ZRA 183 Mulch bill introduced by Council members Fox and Sigaty. Howard County citizens have been voicing their opposition to such a bill for a long time. Citizens have been well educated by medical experts and others provided by DRPS and other sources on the dangers of bringing industrial mulch and compost to farmland and bringing heavy large commercial truck traffic.

As a member of the Friends and Family of Haviland Mill Road steering committee, I am against this bill.

Thank you,
Theresa

--

Theresa Marrow
Records & Registration Specialist
UMBC Registrar's Office
1000 Hilltop Circle
Baltimore, Maryland 21250



Sayers, Margery

From: Joanne Griesser <joanne.griesser@verizon.net>
Sent: Thursday, January 11, 2018 7:13 AM
To: CouncilMail
Subject: I am not in favor of the mulch facility in Dayton.

Council Members.

I do not want this facility in Dayton. I live in the Glenelg area and would be directly affected by this facility.

This is an industrial activity and should be placed in an area zoned as such.

Please review the data that has been provided by the Dayton group. There are negative health issues associated with this activity.

Ask yourself the question if you would like this facility in your neighborhood or would you move to an area close to this facility. I bet your answer would be no.

Please do not allow this to happen.

Joanne Griesser
14831 Sapling Way
Glenelg, MD 21737

Sayers, Margery

From: garyandpatr <garyandpatr@yahoo.com>
Sent: Thursday, January 11, 2018 5:55 AM
To: CouncilMail
Subject: mulching facility

No to ZRA 183
No mulching facilities in Western County, please.

Pat and Gary Heinz

Sayers, Margery

From: Carol Montgomery <freshwindblow@gmail.com>
Sent: Thursday, January 11, 2018 1:21 AM
To: CouncilMail
Subject: Warning: ZRA183 (mulch zoning bill)

Dear Council Members and County Executive Kittleman,

As Howard County residents for many years we have been grateful for the sacrifices our county council has made for the benefit of Howard County residents. Thank you for your service.

We intend to stay in Howard County, but actions by SOME of the council to push for zoning changes and allow industrial mulching in Howard County—including our lovely town of Dayton—alarm us. **ZRA 183 must be discussed and explained openly, not just listing a bunch of zoning amendments. Communication is KEY to a win/win/win.**

Thousands of us have GENUINE health and safety concerns. Some of us are ALREADY sick (e.g., asthma, allergies, chemical sensitivities, COPD, EI, cancer...). **This mulch zoning issue is not one of creating a short-term financial fix, but preventing a long-term perennial problem.**

Industrial mulching and composting do NOT belong in neighborhood areas like Dayton. Some see Dayton as a business opportunity to take advantage of legal loopholes. **Please, make sure the mulch zoning is for industrial areas only—not on ag preserve land or farms.**

We LOVE the farmers and have supported many local farmers (e.g., CSA, produce stands, agri-tourism, Christmas trees, nurseries). Mulching businesses belong in industrial areas, though—not neighborhoods. There must be a way for farmers to get other streams of income without compromising the health and safety of whole communities. **Let's create a win/win/win together!**

You know people are already **taking advantage of farming tax breaks** by “following the rules” (e.g., Mr. Orndorff)—and not following the rules (e.g., Oak Ridge Farm). Commercial (i.e., industrial) mulch (& compost) production for profit poses more risks than benefits to the community of Dayton and ALL of Howard County. **Please, stand up for what is right—people's health and safety.**

Facts:

1. We have read the letter from Hopkins' medical expert Victor Velculescu, M.D., Ph.D. (Professor of Oncology and Pathology). In his letter to the council he reminded you all that wood dust (even in composting activities) is **carcinogenic**, plus mulching and composting can pose **health risks at SIGNIFICANT distances due to infectious agents.**
2. According to Dr. Harriet Burge, Chief Aerobiologist and Director of the Scientific Advisory Board of EMLab P&K, **“Fungal spores can be transported long distance and can survive for many (even hundreds) of years.”** (See article for references:https://www.emlab.com/s/sampling/env-report-06-2011.html#fungal_aerosols)
3. We have seen the school children waiting for buses and getting off of buses locally. And, we have seen an increase in heavy trucks on our rural Dayton roads. We have seen commercial buses and trucks crossing the yellow line (e.g., little Ten Oaks bridge). **We need fewer trucks, not more on our Dayton rural roads for safety reasons.** Commercial (i.e., industrial) mulching (and composting) will bring in more big trucks.
4. We have seen the aerial photos and progress of the Orndorff farm. There appears to be NO intent to farm crops on this ag preserve parcel in the middle of family homes. Mr. Orndorff is NOT a farmer and appears to be biding his time until he can “follow the rules,” do what he wants, and move his commercial mulching to Dayton—**PROFIT over PEOPLE. Others will try to follow his lead.**

Would YOU want to live next to any proposed mulching project long-term? There's a cumulative effective to those hazardous exposures. **Some medical experts have already warned the council.**

Please, be PROACTIVE in protecting the health and safety of current and future Dayton and Howard County generations with safe and healthy zoning. It's a matter of LIFE and BREATH.

Sincerely,

Alan and Carol Montgomery & family

Sayers, Margery

From: synkfamily <synkfamily@verizon.net>
Sent: Wednesday, January 10, 2018 9:50 PM
To: CouncilMail
Subject: Vote NO to ZRA 183

Our family has lived in Glenelg for almost 25 years and we have witnessed many changes and much growth over time. These changes and increased growth are to be expected. Mulching operations that line the pockets of a few and risk the health of many are not to be expected or tolerated! Vote against this health hazard and do not allow our environment to become an eyesore.

Thank you for your attention,
John Synk

Sayers, Margery

From: Susan Wilensky <susanwilensky@aol.com>
Sent: Wednesday, January 10, 2018 9:24 PM
To: CouncilMail
Subject: Howard County Mulch Bill for Reconsideration

Dear Howard County Council Members,

It is inconceivable to me that this bill is still under consideration and hasn't been killed yet. After so much sound testimony about the dangers to the health of the residents of Howard County, I am outraged that some members of the Council still support this bill...absolutely outraged.

Please review the expert testimony and decide against this bill and in favor of the health and welfare of our citizens.

Sincerely,
Susan Wilensky
Dayton, MD

Sent from my iPad

Sayers, Margery

From: gdtravers@starpower.net
Sent: Wednesday, January 10, 2018 9:10 PM
To: CouncilMail
Subject: industrial mulch bill, again on 11 Jan ???

Again???

If this is same bill we read earlier then there are still insufficient controls for monitoring AND affordable, county supported redress available for those harmed. The operator monitors themselves and if "fined" they pay the fine and move on; repeatedly if they sell enough to cover their normal business costs - and that includes the fine.

The monitors are not placed within the surrounding community, not automatically recorded and further the results are not required to be published so that all can see what thresholds are and when they may be violated.

The cost to the environment is enormous and should be borne by the operator/owners NOT the tax payers.

I was disappointed in the protection details, them all for the last sessions. I appreciate that you have labored with them as well. Please identify and tell me what documents have changed so that I may re-read those sections to see what yo are now offering.

Let's pay more attention to the what will be done, because you must assume that it will occur. As a taxpayer, I don't want to insure that operation. That is exactly what I thought I read for liability. Please assure otherwise, with a consenting opinion from both authoritative legal and oversight with jurisdiction over the hypothetical situation. That might live for a couple of hours under any administration but it might make me feel a bit better until event does happen.

The buck cannot and should not pass along to some federal or even state clean up fund. Howard County is making the assessment and the decision and it should be on the pointy end of making all ends are cleaned up. The operation is supposed to be for local purposes ONLY if that has also been unchanged.

I don't believe that those costs have been identified nor published in the bill's contents. You're not just approving an operation , you're identifying a downstream cost that should/will require Howard County payment. What is it?

thank you
Gary Travers
a resident of Dayton
14470 Triadelphia Mill Rd

Sayers, Margery

From: Carla Tevelow <perlpubl@gmail.com>
Sent: Wednesday, January 10, 2018 8:48 PM
To: CouncilMail
Subject: mulching farm bill

Once again Councilpersons Fox and Sigaty are trying to pass an unwanted bill for mulching. There has been much medical testimony stating, mold spores and contamination of our groundwater over time will be unsafe for us and for our children! It is NOT safe to put industrial mulch businesses on farmland around our families. Listen to your constituents and keep this bill from passing.

Thank you,
Carla Tevelow

Sayers, Margery

From: John Capece <johncapece@gmail.com>
Sent: Wednesday, January 10, 2018 5:25 PM
To: CouncilMail
Subject: Do NOT Pass ZRA 183

Please do not pass ZRA 183. I believe passing this bill will threaten the health, safety, and welfare of county residents. I've lived in Howard County for over 40 years, 30 of them in Dayton. I care deeply about the county and my Dayton community, please do what's right and vote this bill down. Respectfully, John Capece

Sayers, Margery

From: David M Banwarth <dmbanwarth@verizon.net>
Sent: Wednesday, January 10, 2018 5:24 PM
To: CouncilMail; Kittleman, Allan
Subject: DEFEAT ZRA183 and CB60 Type Legislation - NO MULCH OR COMPOST OPERATIONS on RC RR and Ag Pres properties.

Council Members Fox, Sigaty, Weinstein - Do NOT continue to attempt to destroy our residential communities with your proposed dangerous legislation that will poison our air and water, place our communities at risk of dangerous heavy truck traffic, and ruin our quality of life in rural areas. Keep mulch and composting on M1/M2 lands.

Council Members Ball and Terrassa - THANK YOU for your previous opposition to CB60, and your votes to protect our health and safety and quality of life. We hope we can count on you to continue to do so in this next round of legislation.

County Executive Kittleman - You have chosen to side against our health and safety and have broken your previous campaign pledge regarding mulch and compost on Ag Pres lands. We will remember at the voting booth and encourage others accordingly.

Sayers, Margery

From: Cynn timer <hood14106@comcast.net>
Sent: Wednesday, January 10, 2018 4:46 PM
To: CouncilMail
Subject: ZRA183

Dear Council Member:

I urge you to vote "no" on ZRA183.

In Howard County, we need our council to be responsible and vote against the mulching industry setting up on rural land that is surrounded by those of us on well water. The medical community and the environmental experts have both given ample testimony as to why this policy should not be enacted. Please pay attention and vote to defeat ZRA183. Sigaty and Fox are not experts on this subject. Please pay attention to those who are well-informed.

Vote against ZRA183.

Sincerely,

Cynthia Hood...and yes, I have a well and live on a road that will be impacted by the decision you make.

14106 Howard Rd

Dayton, Maryland

Sayers, Margery

From: Laura Halsor <lshalsor@gmail.com>
Sent: Wednesday, January 10, 2018 4:45 PM
To: CouncilMail; info@preservedayton.com
Subject: Mulch Bill

As a very long term resident of Howard County, I want to express my total displeasure regarding a 3rd attempt to allow the mulching being proposed in the bill. Why is the Council and Mr. Kittleman so intent on ruining the quality of life in Howard County. I can assure you, I will NEVER vote for Mr. Kittleman again....nor any other Council member who supports this bill!

Laura Halsor

Sent from my iPad

Sayers, Margery

From: Kim S <kimscanio@gmail.com>
Sent: Wednesday, January 10, 2018 4:24 PM
To: CouncilMail
Subject: ZRA183

Please don't do this. Please do not pass a bill that is hazardous to the health and well being of the residents and brings large amounts of uncertainty to our area.

Please do not pass this bill that does not address the concerns of the people who live in the area and are still raising children in the area- unlike some of the preservation land owners.

Please, please, please consider the years and years worth of opposition to this bill.

I'm pleading with you 4 at this point that resolution not be one-sided.

The majority has spoken and it has been in opposition to the bill. How is it that there is still a chance?

I know that you will not reply with answers...as I found out when I testified-you are not here for the purpose of answering the questions of concerned residents like myself, but, I do ask that you at least listen. I OPPOSE ZRA183.

V/r

Kim Scanio

Sayers, Margery

From: steven patterson <steven_patterson@hotmail.com>
Sent: Wednesday, January 10, 2018 3:59 PM
To: CouncilMail
Subject: Please kill ZRA 183

Councilmembers,

Please do not allow this bill for commercial mulch on ag land to continue. It is wrong on many levels and the citizens of HoCo deserve better than this.

Thank you for your time.

Sincerely,
Steven L. Patterson

Sayers, Margery

From: Don Howell <don.howell05@gmail.com>
Sent: Monday, January 01, 2018 9:04 AM
To: PlanningBoard; Weinstein, Jon; Ball, Calvin B; Terrasa, Jen; Sigaty, Mary Kay; Fox, Greg; Feldmark, Jessica
Subject: Testimony: ZRA 183, Council Bill 60 (CB60)
Attachments: CB 60 - 1.jpg; CB 60 - 2.jpg; CB 60 - 3.jpg; CB 60 - 4.jpg


Attached is our testimony in reference to **ZRA 183, Council Bill 60 (CB60), "Mulching operations in western Howard County"**.

Please acknowledge receipt of this correspondence.

Ann and Don Howell
2918 Florence Road
Woodbine, Maryland 21797

don.howell05@gmail.com

To: Planning Board and the Department of Planning and Zoning (DPZ)
Jon Weinstein, District 1
Dr. Calvin Ball, District 2
Jen Terrasa, District 3
Mary Kay Sigaty, District 4
Greg Fox, District 5
Jessica Feldmark, Council Administrator

From: ^{A.H} Ann and Donald Howell 

Date: December 31, 2017

Subject: "ZRA 183, Council Bill 60 (CB60)", "Mulch and composting facilities in western Howard County".

The following shall be our testimony to the pending "**ZRA 183, Council Bill 60 (CB60)**", "**Mulch and composting facilities in western Howard County**".

We live at 2918 Florence Road, Woodbine, Maryland, 21797. This location makes my residence, at 800 feet, the 3rd closest to the current and proposed Mulching Operation. (See attachments #1A, #1B)

Having lived in our home for 40 years, since October of 1977, it was never our intent nor expectation that we would be adjacent to a commercial operation. Had I wanted to be live next to a business, I would have selected property in central, eastern or southern Howard County.

My initial position to the mulching operation is one of **opposition**.

However, since we live in rural western Howard County, we do acknowledge, that within reason, land owners should have the ability utilize their property in a responsible and neighborly manner. In this specific circumstance, even mulching.

We will NOT object to the 'Mulching Operation' adjacent to our property, provided that each of the following "stipulations" are met:

1. Days of operation shall be Monday thru Friday.
2. Daily hours of operation shall be 0700 Hours to 1700 Hours.
3. Saturday's and Sunday's, and from 1700 Hours to 0700 Hours daily, there shall be NO:
 - a. Delivery of materials to the site
 - b. Operation of equipment on site
 - c. Movement of materials on site
 - d. Mulching/Grinding of materials on site

We shall **OPPOSE** "ZRA 183, Council Bill 60 (CB60)" should any of the before mentioned "stipulations" not be implemented.

Respectfully submitted,

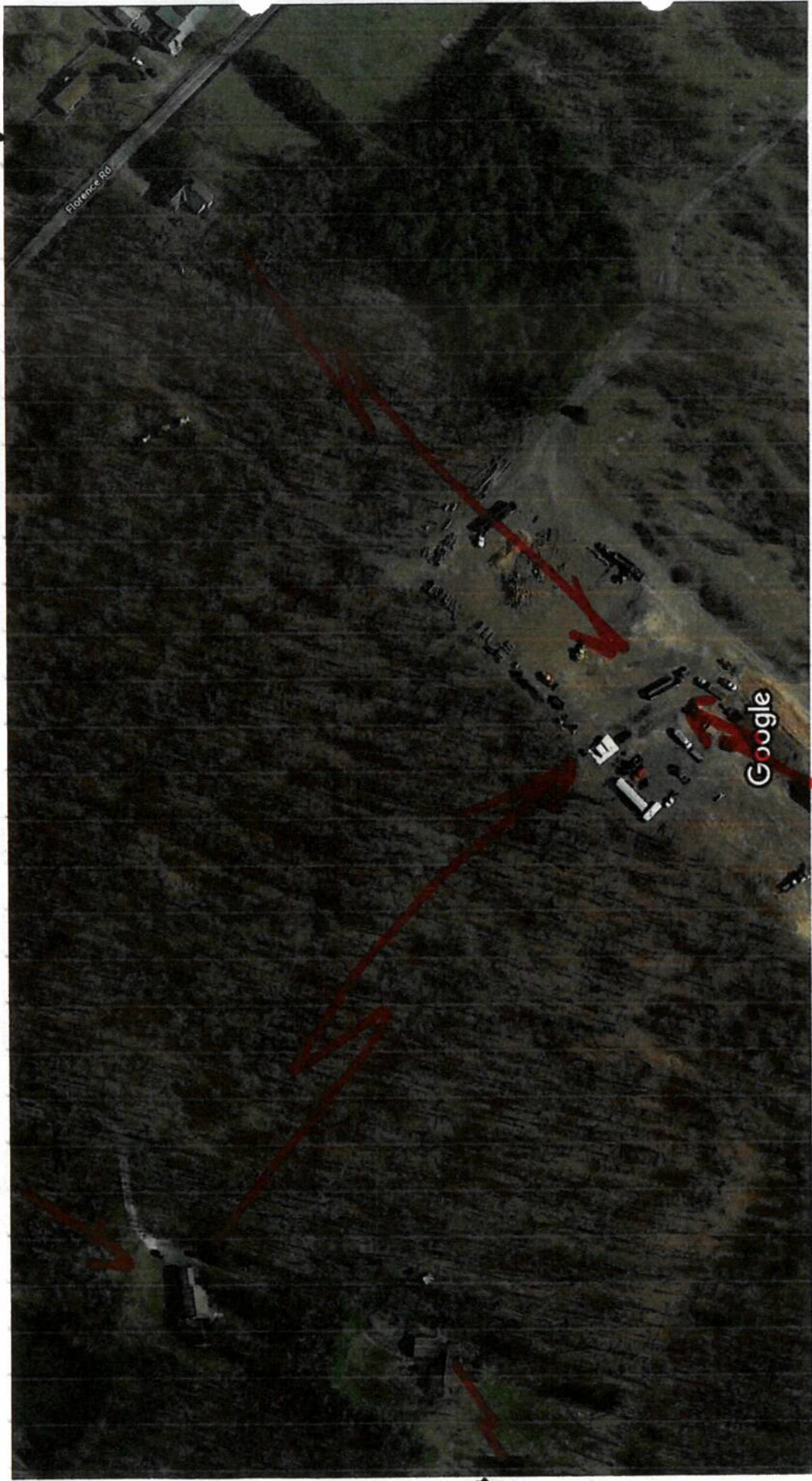
Ann Howell
Ann E. Howell

Donald R. Howell
Donald R. Howell

don.howell05@gmail.com

(PLEASE acknowledge receipt of this correspondence, don.howell05@gmail.com)

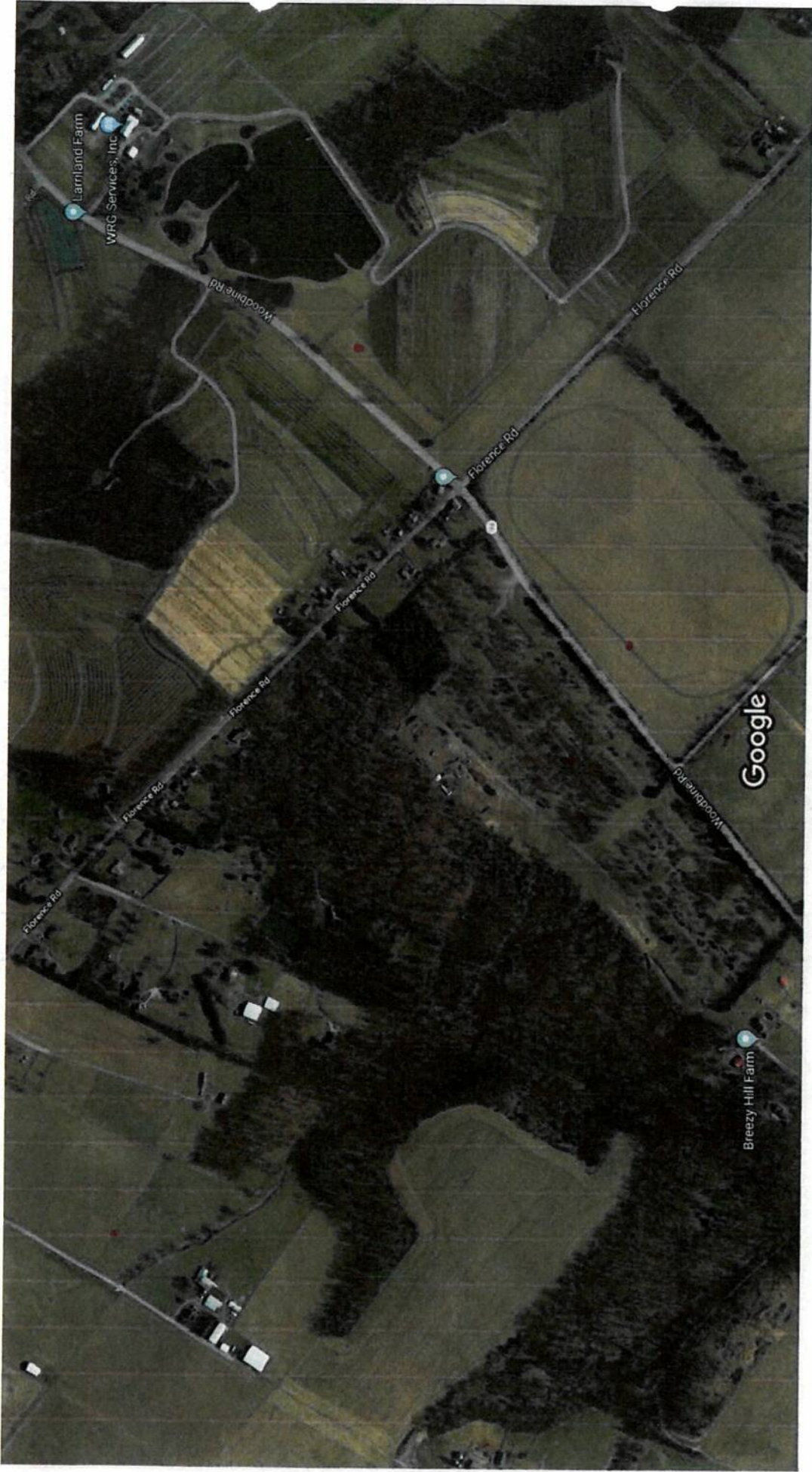
Howell Residence 2918 Florence Road (800')
↓
Unknown Residence (750')



Merson Residence (700')

Mulching
Operation

Attachment "1A"



Attachment "IB"



PETITION TO AMEND THE ZONING REGULATIONS OF HOWARD COUNTY

DPZ Office Use Only: Case No. ZRA-183 Date Filed: 12-12-17

1. Zoning Regulation Amendment Request

I (we), the undersigned, hereby petition the County Council of Howard County to amend the Zoning Regulations of Howard County as follows: To amend the following sections of the Howard County Zoning Regulations:

- 1. Section 103.0 to add new definitions for Composting Facility, Bulk Firewood Processing, Feedstock, Horticultural Nursery, Natural Wood Waste, Natural Wood Waste Recycling, Natural Wood Waste Recycling Facility, and Sawmill;
2. Section 103.0 to delete definitions for Mulch Manufacture and Yard Waste Composting;
3. Section 104.0, Section 105.0 and Section 106.1 to add Composting Facilities as permitted accessory uses;
4. Section 106.1 to add Natural Wood Waste Recycling Facilities if Accessory to a Horticultural Nursery as a Conditional Use on ALPP Purchased and ALPP Dedicated Easements;
5. Section 122.0 to add Natural Wood Waste Recycling and Natural Wood Waste Recycling Facilities as permitted uses and delete Mulch Manufacture;
6. Section 123.0 to add Tier 1, Tier 2 - Small and Tier 2 - Large Composting Facilities as permitted uses on parcels that do not abut residentially zoned property;
7. Section 124.0 to add Composting Facilities, Tier 3, as a permitted use;
8. Section 128.0.I to add a new category, Tier 1 or Tier 2 - Small Composting Facilities, as a Permitted Special Farm Use;
9. Section 131.0.N. to update the Conditional Uses and Permissible Zoning Districts Chart;
10. Section 131.0.N.46 to delete Mulch Manufacture from the category title, Sawmills, Bulk Firewood Processing, Mulch Manufacture, or Soil Processing;
11. Section 131.0.N.60 to delete the category, Yard Waste Composting Facility;
12. Section 131.0.O to add two new Conditional Use categories, Composting Facilities and Natural Wood Waste Recycling Facility.

2. Petitioner's Name Greg Fox, County Council Member and Mary Kay Sigaty, County Council Member Address 3430 Courthouse Drive, Ellicott City, MD 21043 Phone No. (W) 410-313-2001 (H) N/A Email Address gfox@howardcountymd.gov, mksigaty@howardcountymd.gov

2017 Dec 12 AM 8:49 HOWARD COUNTY COUNCIL RECEIVED

3. Counsel for Petitioner Paul Johnson, Deputy County Solicitor
Counsel's Address 3430 Courthouse Drive, Ellicott City, MD 21043
Counsel's Phone No. 410-313-2101
Email Address pjohnson@howardcountymd.gov

4. Please provide a brief statement concerning the reason(s) the requested amendment(s) to the Zoning Regulations is (are) being proposed.

In response to concerns related to potential large scale mulch and composting facilities in western Howard County, Zoning Regulation Amendment 149 (Council Bill 20-2014, effective August 4, 2014), amended the 2013 Zoning Regulations by reinstating certain Zoning Regulations that were in effect prior to 2013. Subsequently, a Task Force was created to study mulching, composting and wood processing policies and regulations with respect to Howard County land use, planning processes and Zoning Regulations. Additionally, in 2015, Maryland Department of the Environment (MDE) revised and updated the State's composting regulations.

Subsequent to the Task Force's final report (found at:

http://cc.howardcountymd.gov/LinkClick.aspx?fileticket=H_2zmFwSRjQ%3d&portalid=0), the Department of Planning and Zoning met with a smaller group of Task Force participants to develop zoning regulations, which became the foundation for ZRA-180.

ZRA-180 proposed regulatory changes that recognize the importance of farming to the County and avoid undue burdens on farmers as they conduct agricultural activities while simultaneously addressing concerns of residential neighbors related to large scale mulch and composting operations and incorporating MDE's recently revised composting regulations.

This petition reflects Council Bill 60-2017 (ZRA-180) as amended by the County Council in response to public concerns heard during the Council's consideration of Council Bill 60. This ZRA provides for extensive safeguards, protects air and groundwater quality, and limits truck traffic. In addition to this ZRA, CB78-2017 as passed applies fire prevention measures that restricts the size and length of piles in Howard County. The amendments to ZRA-180 include:

- Eliminating references to emergency natural wood waste recycling facilities
- Providing standards for natural wood waste facilities that are accessory to horticultural nurseries
- Eliminating compost facilities as a by-right use in certain zoning districts
- Specifying that natural wood waste recycling facilities are allowed by right in M-1
- Clarifying the kinds of composting allowed by right in M-2
- Restricting some on-site retail sales of compost

- Providing a process for farmers who produce excess compost in certain situations
- Limiting the size and location of certain composting and natural wood waste facilities
- Increasing some setbacks for composting and natural wood waste operations

5. Please provide a detailed justification statement demonstrating how the proposed amendment(s) will be in harmony with current General Plan for Howard County.

PlanHoward 2030 discusses the interplay of agricultural and commercial uses and recognizes that “In a rapidly changing economy, Howard County farmers should be able to utilize innovative farming practices so they too can adapt to the evolving market. Enhancing their ability to farm efficiently is critical to the growth of Howard County and its ability to maintain a diverse economy. However, new development plans and conditional uses should include better buffers to reduce conflicts with neighboring residents.”

Policy 4.5 seeks to “Refine the RC and RR zoning regulations to provide greater flexibility for the agricultural community as well as appropriate protections for rural residents.” The proposed amendments are consistent and attempt to implement this policy.

6. The Legislative Intent of the Zoning Regulations in Section 100.A. expresses that the Zoning Regulations have the purpose of “...preserving and promoting the health, safety and welfare of the community.” Please provide a detailed justification statement demonstrating how the proposed amendment(s) will be in harmony with this purpose and the other issues in Section 100.A.

All proposed amendments are in harmony with the legislative intent of the Howard County Zoning Regulations. Specifically, Section 100.0.A.2. of the Howard County Zoning Regulations indicates that it is the intent of these Regulations “To protect the character, the social and economic stability of all parts of the County; to guide the orderly growth and development of the County, and to protect and conserve the value of land and structures appropriate to the various land use classes established by the General Plan for Howard County, and by these comprehensive Zoning Regulations”.

7. Unless your response to Section 6 above already addresses this issue, please provide an explanation of the public benefits to be gained by the adoption of the proposed amendment(s).

Promote the orderly growth of the County while balancing concerns of the farming community with residential neighbors.

8. Does the amendment, or do the amendments, have the potential of affecting the development of more than one property, yes or no? Yes. Because the amendment clearly states that Natural Wood Waste Recycling and Composting Facilities as a matter of right, by permit, or by conditional use, with limitations, are allowed on properties in the RC, RR, M-1, M-2 and SW zoning districts.

If yes, and the number of properties is less than or equal to 12, explain the impact on all properties affected by providing a detailed analysis of all the properties based upon the nature of the changes proposed in the amendment(s). If the number of properties is greater than 12, explain the impact in general terms.

See comments above.

9. If there are any other factors you desire the Council to consider in its evaluation of this amendment request, please provide them at this time. Please understand that the Council may request a new or updated Technical Staff Report and/or a new Planning Board Recommendation if there is any new evidence submitted at the time of the public hearing that is not provided with this original petition.

See the Maryland Department of the Environment Composting and Natural Wood Waste Recycling Facility Permit Applications (Exhibits B and C), which detail the various State requirements necessary for approval of the uses. Also, see the NFPA 1, Fire Code 2015 Edition (NFPA 2015) that is incorporated by reference in Howard County 2015 Fire Prevention Code (HoCo FPC 2015). In addition to requirements in the NFPA 2015, the HoCo FPC 2015 provide certain additional requirements specific to Mulch / Wood Processing facilities and Natural Wood Waste Recycling / Composting facilities. See also Council Bill 78-2017 (Exhibit D), which requires that piles of certain material regulated by the Fire Prevention Code be turned or reclaimed in accordance with State law, specifies the height requirement for certain materials, adds that certain materials may constitute a public nuisance, and clarifies that the right to farm does not apply when an agricultural operation does not comply with the Fire Prevention Code.

10. You must provide the full proposed text of the amendment(s) as a separate document entitled "Petitioner's Proposed Text" that is to be attached to this form. This document must use this standard format for Zoning Regulation Amendment proposals; any new proposed text must be in CAPITAL LETTERS, and any existing text to be deleted must be in [[Double Bold Brackets]]. In addition, you must provide an example of how the text would appear normally if adopted as you propose.

After this petition is accepted for scheduling by the Department of Planning and Zoning, you must provide an electronic file of the "Petitioner's Proposed Text" to the Division of Public Service and Zoning Administration. This file must be in Microsoft Word or a Microsoft Word

compatible file format, and may be submitted by email or some other media if prior arrangements are made with the Division of Public Service and Zoning Administration.

11. The Petitioner agrees to furnish additional information as may be required by the Department of Planning and Zoning prior to the petition being accepted for scheduling, by the Planning Board prior to its adoption of a Recommendation, and/or by the County Council prior to its ruling on the case.
12. The undersigned hereby affirms that all of the statements and information contained in, or filed with this petition, are true and correct. The undersigned has read the instructions on this form, filing herewith all of the required accompanying information. If the Petitioner is an entity that is not an individual, information must be provided explaining the relationship of the person(s) signing to the entity.

Greg Fox
Petitioner's name (Printed or typed)

Greg Fox 12/11/17
Petitioner's Signature Date

Mary Kay Sigaty
Petitioner's name (Printed or typed)

Mary Kay Sigaty 12.11.17
Petitioner's Signature Date

Petitioner's name (Printed or typed)

Petitioner's Signature Date

Paul T. Johnson 12/12/17
Counsel for Petitioner's Signature

[If additional signatures are necessary, please provide them on a separate document to be attached to this petition form.]

FEE

The Petitioner agrees to pay all fees as follows:

- Filing fee\$695.00. If the request is granted, the Petitioner shall pay \$40.00 per 200 words of text or fraction thereof for each separate textually continuous amendment (\$40.00 minimum, \$85.00 maximum)
- Each additional hearing night..... \$510.00*

The County Council may refund or waive all or part of the filing fee where the petitioner demonstrates to the satisfaction of the County Council that the payment of the fee would work an extraordinary hardship on the petitioner. The County Council may refund part of the filing fee for withdrawn petitions. The County Council shall waive all fees for petitions filed in the performance of governmental duties by an official, board or agency of the Howard County Government.

For DPZ office use only:

Hearing Fee \$ _____

Receipt No. _____

PLEASE CALL 410-313-2350 FOR AN APPOINTMENT TO SUBMIT YOUR APPLICATION

County Website: www.howardcountymd.gov

Revised:5/08
T:\Shared\Public Service and Zoning\Applications\County Council\ZRA Application Draft

INSTRUCTIONS TO THE APPLICANT/PARTY OF RECORD

- As required by State Law, applicants are required to complete the AFFIDAVIT AS TO CONTRIBUTION that is attached, and if you have made a contribution as described in the Affidavit, please complete the DISCLOSURE OF CONTRIBUTION that is attached.
- If you are an applicant, Party of Record (i.e., supporter/protestant) or a family member and have made a contribution as described in the Affidavit, you must complete the DISCLOSURE OF CONTRIBUTION that is attached.
- Filed affidavits and disclosures will be available for review by the public in the office of the Administrative assistant to the Zoning Board during normal business hours.
- Additional forms may be obtained from the Administrative Assistant to the Zoning Board at (410-313-2395) or from the Department of Planning and Zoning.
- Completed form may be mailed to the Administrative Assistant to the Zoning Board at 3430 Courthouse Drive, Ellicott City, MD 21043.
- Pursuant to State Law, violations shall be reported to the Howard County Ethics Commission.

ZONING MATTER: _____

AFFIDAVIT AS TO CONTRIBUTION

**As required by the Annotated Code of Maryland
State Government Article, Sections 15-848-15-850**

I, _____, the applicant in the above zoning matter

_____, HAVE _____ HAVE NOT

made any contribution or contributions having a cumulative value of \$500 or more to the treasurer of a candidate or the treasurer of a political committee during the 48-month period before application in or during the pendency of the above referenced zoning matter.

I understand that any contribution made after the filing of this Affidavit and before final disposition of the application by the County Council shall be disclosed within five (5) business days of the contribution.

I solemnly affirm under the penalties of perjury and upon personal knowledge that the contents of the foregoing paper are true.

Name: _____

Date: _____

ZONING MATTER: _____

DISCLOSURE OF CONTRIBUTION

**As required by the Annotated Code of Maryland
State Government Article, Sections 15-848-15-850**

This Disclosure shall be filed by an Applicant upon application or by a Party of Record within 2 weeks after entering a proceeding, if the Applicant or Party of Record or a family member, as defined in Section 15-849 of the State Government Article, has made any contribution or contributions having a cumulative value of \$500 or more to the treasurer of a candidate of the treasurer of a political committee during the 48-month period before the application was file or during the pendency of the application.

Any person who knowingly and willfully violates Sections 15-848-15-850 of the State Government Article is subject to a fine of not more than \$5,000. If the person is not an individual, each officer and partner who knowingly authorized or participated in the violation is subject to the same penalty.

APPLICANT OR
PARTY OF RECORD: _____

RECIPIENTS OF CONTRIBUTIONS:

<u>Name</u>	<u>Date of Contribution</u>	<u>Amount</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

I understand that any contribution made after the filing of this Disclosure and before final disposition of the application by the County Council shall be disclosed with five (5) business days of the contribution.

Name: _____

Date: _____

ZONING MATTER: _____

AFFIDAVIT AS TO ENGAGING IN BUSINESS WITH AN ELECTED OFFICIAL

**As required by the Annotated Code of Maryland
State Government Article, Sections 15-848-15-850**

I, _____, the applicant in the above zoning matter

_____, AM

_____ AM NOT

Currently engaging in business with an elected official as those terms are defined by Section 15-848 of the State Government Article of the Annotated Code of Maryland.

I understand that if I begin engaging in business with an elected official between the filing of the application and the disposition of the application, I am required to file an affidavit in this zoning matter at the time of engaging in business with elected official.

I solemnly affirm under the penalties of perjury and upon personal knowledge that the contents of the foregoing paper are true.

Name: _____

Date: _____

1 **EXHIBIT A**

2
3 **Howard County Zoning Regulations.**

4 **SECTION 103.0: Definitions.**

5
6 **Section 103.0: Definitions**

7 Terms used in these Zoning Regulations shall have the definition provided in any standard
8 dictionary, unless specifically defined below or in any other provision of these Zoning
9 Regulations:

10
11 C

12
13 COMPOSTING FACILITY: A FACILITY WHERE COMPOSTING , THE CONTROLLED AEROBIC BIOLOGICAL
14 DECOMPOSITION OF ORGANIC WASTE MATERIAL, TAKES PLACE AS REGULATED BY AND WHICH
15 OPERATES UNDER A PERMIT FROM THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER
16 COMAR. COMPOSTING IS ALLOWED AS AN ACCESSORY USE IF A PERMIT FROM THE MARYLAND
17 DEPARTMENT OF THE ENVIRONMENT IS NOT REQUIRED.

18
19 F

20
21 FEEDSTOCK: ORGANIC MATTER USED FOR COMPOSTING AS DEFINED IN COMAR.

22
23 FIREWOOD PROCESSING, BULK: A COMMERCIAL FACILITY WHICH PRINCIPALLY PROCESSES
24 BRANCHES AND LOGS BY CHOPPING, CUTTING, SAWING, OR SPLITTING TO PRODUCE FIREWOOD FOR
25 SALE, AND WHICH MAY INCLUDE THE ACCESSORY PROCESSING OF THE WOOD WASTE SOLELY
26 PRODUCED BY THE PRINCIPAL PROCESSING TO CREATE HUMUS, MULCH OR WOOD CHIPS. THIS TERM
27 DOES NOT INCLUDE THE PRODUCTION OF FIREWOOD AS AN ACCESSORY USE TO FARMING OR
28 RESIDENTIAL PARCELS FOR LAND CLEARING OR PRIVATE USE PURPOSES.

29

30

1 H

2 HORTICULTURAL NURSERY: AN AGRICULTURAL OPERATION PRIMARILY ENGAGED IN THE
3 GROWING, HARVESTING AND PRIMARY PROCESSING OF TREES, SHRUBS AND PLANTS. PLANT
4 MATERIAL SHALL BE GROWN ON THE PREMISES AND MAY BE PURCHASED ELSEWHERE AT ANY
5 STAGE OF MATURITY FOR PRODUCTION ON THE PREMISES. HORTICULTURAL NURSERIES MAY
6 ENGAGE IN ACCESSORY USES SUCH AS STORAGE OF PLANT MATERIALS AND SALE OF PRODUCTS
7 NECESSARY FOR THE HEALTH OF THE NURSERY STOCK.

8

9 N

10

11 NATURAL WOOD WASTE: TREE AND OTHER NATURAL VEGETATIVE REFUSE INCLUDING TREE
12 STUMPS, BRUSH AND LIMBS, ROOT MATS, LOGS, LEAVES, GRASS CLIPPINGS, UNADULTERATED WOOD
13 WASTES, AND OTHER NATURAL VEGETATIVE MATERIALS.

14

15 NATURAL WOOD WASTE RECYCLING: THE MANUFACTURE OF HORTICULTURAL MULCH FROM
16 NATURAL WOOD WASTE THAT DOES NOT MEET THE DEFINITION OF A NATURAL WOOD WASTE
17 RECYCLING FACILITY. NATURAL WOOD WASTE RECYCLING IS ALLOWED AS AN ACCESSORY USE IF
18 A PERMIT FROM THE MARYLAND DEPARTMENT OF THE ENVIRONMENT IS NOT REQUIRED.

19

20 NATURAL WOOD WASTE RECYCLING FACILITY: A FACILITY WHERE RECYCLING SERVICES FOR
21 NATURAL WOOD WASTE IS PROVIDED AND WHICH OPERATES UNDER A PERMIT FROM THE
22 MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR.

23

24 M

25

26 [[Mulch Manufacture: The manufacture of horticultural mulch from wood, wood products or
27 similar materials. This term does not include the production of mulch as a by-product of on-site
28 farming.]]

29

1 S

2

3 SAWMILL: A COMMERCIAL FACILITY WHICH PRINCIPALLY PROCESSES LOGS BY SAWING, SPLITTING,
4 SHAVING, OR STRIPPING TO PRODUCE LUMBER AND WHICH MAY INCLUDE THE ACCESSORY
5 PROCESSING OF THE WOOD WASTE SOLELY PRODUCED BY THE PRINCIPAL PROCESSING TO CREATE
6 HUMUS, MULCH OR WOOD CHIPS. THIS TERM DOES NOT INCLUDE THE PRODUCTION OF LUMBER AS
7 AN ACCESSORY USE TO FARMING OR RESIDENTIAL PARCELS FOR LAND CLEARING OR PRIVATE USE
8 PURPOSES.

9

10 Y

11

12 [[Yard Waste Composting Facility: A facility at which yard waste and natural wood waste is
13 received and processed to produce compost for off-site use.]]

14

15

16 **SECTION 104.0: RC (Rural Conservation) District**

17 **C. Accessory Uses**

18 The following are permitted accessory uses in the RC District, except that only the uses
19 listed in Section 106.1 shall be permitted on County Preservation Easements. More than one
20 accessory use shall be permitted on a lot, provided that the combination of accessory uses
21 remains secondary, incidental and subordinate to the principal use.

22 1. Any use normally and customarily incidental to any use permitted as a matter of right
23 in this district. Accessory structures are subject to the requirements of Section
24 128.0.A.

25 2. Accessory houses, limited to the following:

26 a. Farm tenant houses and similar uses customarily accessory to agricultural uses,
27 provided that these uses shall not be permitted on parcels of less than 50 acres,
28 and one unit shall be permitted for each 25 acres of that parcel; or

- 1 b. Caretakers' dwellings and similar uses customarily accessory to residential estate
2 uses, provided that these uses shall not be permitted on parcels of less than 50
3 acres and one unit shall be permitted for each 50 acres of that parcel.
- 4 3. Accessory apartments, subject to the requirements of Section 128.0.A.
- 5 4. The housing by a resident family of:
 - 6 a. Not more than four non-transient roomers or boarders; or
 - 7 b. Not more than eight mentally and/or physically disabled persons or persons 62
8 years of age or older, provided the use is registered, licensed or certified by the
9 State of Maryland; or
 - 10 c. A combination of a and b above, provided that the total number of persons
11 housed in addition to the resident family does not exceed eight.
- 12 5. Home occupations, subject to the requirements of Section 128.0.C.
- 13 6. Home care, provided that if home care is combined with housing of mentally or
14 physically disabled persons or persons 62 years of age or older, as allowed by
15 Subsection 4.b above, the total number of persons receiving home care at any one
16 time plus the number of persons being housed shall not exceed eight.
- 17 7. Parking:
 - 18 a. Off-street parking of no more than two commercial vehicles on lots of three or
19 more acres and no more than one commercial vehicle on lots of less than three
20 acres. Private off-street parking is restricted to vehicles used in connection with
21 or in relation to a principal use permitted as a matter of right in the district.
 - 22 b. Off-street parking or storage of unregistered, inoperable, wrecked, dismantled or
23 destroyed motor vehicles shall not be permitted, except as provided by Section
24 128.0.D.
- 25 8. Storage of recreational vehicles or boats, provided that on lots of 20,000 square feet
26 or smaller, such storage shall be limited to the following:
 - 27 a. One recreational vehicle with a length of 30 feet or less; and
 - 28 b. One boat with a length of 20 feet or less.
- 29 9. The following commercial services are permitted as accessory uses on farms,
30 provided that the uses are located on a parcel of at least 50 acres or on a parcel of any

- 1 size subject to an ALPP purchased or dedicated easement, the commercial service is
2 conducted by persons residing on or operating the farm, and all uses are screened
3 from public roads and adjacent lots:
- 4 a. Blacksmith shop
 - 5 b. Farm machinery repair
 - 6 c. Lawn and garden equipment repair
 - 7 d. Welding
- 8 10. Farm stands, subject to the requirements of Section 128.0.I.
- 9 11. Snowball stands, subject to the requirements of Section 128.0.D.
- 10 12. Home-based contractors, subject to the requirements of Section 128.0.C.2.
- 11 13. The acceptance or disposal of off-site land clearing debris under a permit issued by
12 the Department of Planning and Zoning, subject to the requirements of Section
13 128.0.D.
- 14 14. Value-added processing of agricultural products, subject to the requirements of
15 Section 128.0.I.
- 16 15. Agritourism enterprises and pick-your-own marketing of farm products, subject to
17 the requirements of Section 128.0.I.
- 18 16. Farm Winery—Class 1A and Farm Brewery—Class 1A, subject to the requirements
19 of Section 128.0.O.
- 20 17. Small Wind Energy System, building mounted, subject to the requirements of
21 Section 128.0.L.
- 22 18. Small Wind Energy System, freestanding tower on properties 5 acres or great or
23 greater, subject to the requirements of Section 128.0.M.
- 24 19. Riding Academies and Stables, subject to the requirements of Section 128.0.I.
- 25 20. Community Supported Agriculture, subject to the requirements of Section 128.0.I.
- 26 21. Food Hubs, subject to the requirements of Section 128.0.I.
- 27 22. Accessory Solar Collectors.
- 28 23. Residential chicken keeping, subject to the requirements of Section 128.0.D.
- 29 24. Livestock on residential lots or parcels, subject to the requirements of Section
30 128.0.D.

1 25. COMPOSTING FACILITIES, SUBJECT TO THE REQUIREMENTS OF SECTION 128.0.I.

2
3 **SECTION 105.0 RR (Rural Residential) District**

4 **C. Accessory Uses**

5 The following are permitted accessory uses in the RR District, except that only the uses
6 listed in Section 106.1 shall be permitted on County preservation easements. More than one
7 accessory use shall be permitted on a lot, provided that the combination of accessory uses
8 remains secondary, incidental and subordinate to the principal use.

- 9 1. Any use normally and customarily incidental to any use permitted as a matter of right
10 in this district. Accessory structures are subject to the requirements of Section
11 128.0.A.
- 12 2. Accessory houses, limited to the following:
- 13 a. Farm tenant houses and similar uses customarily accessory to agricultural uses,
14 provided that these uses shall not be permitted on parcels of less than 50 acres,
15 and one unit shall be permitted for each 25 acres of that parcel; or
- 16 b. Caretakers' dwellings and similar uses customarily accessory to residential estate
17 uses, provided that these uses shall not be permitted on parcels of less than 50
18 acres and one unit shall be permitted for each 50 acres of that parcel.
- 19 3. Accessory apartments, subject to the requirements of Section 128.0.A.
- 20 4. The housing by a resident family of:
- 21 a. Not more than four non-transient roomers or boarders; or
- 22 b. Not more than eight mentally and/or physically disabled persons or persons 62
23 years of age or older, provided the use is registered, licensed or certified by the
24 State of Maryland; or
- 25 c. A combination of a and b above, provided that the total number of persons
26 housed in addition to the resident family does not exceed eight.
- 27 5. Home occupations, subject to the requirements of Section 128.0.C.
- 28 6. Home care, provided that if home care is combined with housing of mentally or
29 physically disabled persons or persons 62 years of age or older, as allowed by

1 Subsection 4.b above, the total number of persons receiving home care at any one
2 time plus the number of persons being housed shall not exceed eight.

3 7. Parking:

4 a. Off-street parking of no more than two commercial vehicles on lots of three or
5 more acres and no more than one commercial vehicle on lots of less than three
6 acres. Private off-street parking is restricted to vehicles used in connection with
7 or in relation to a principal use permitted as a matter of right in the district.

8 b. Off-street parking or storage of unregistered, inoperable, wrecked, dismantled or
9 destroyed motor vehicles shall not be permitted, except as provided by Section
10 128.0.D.

11 8. Storage of recreational vehicles or boats, provided that on lots of 20,000 square feet
12 or smaller, such storage shall be limited to the following:

13 a. One recreational vehicle with a length of 30 feet or less; and

14 b. One boat with a length of 20 feet or less.

15 9. The following commercial services are permitted as accessory uses on farms,
16 provided that the uses are located on a parcel of at least 50 acres or on a parcel of any
17 size subject to an ALPP Purchased or ALPP Dedicated Easement, the commercial
18 service is conducted by persons residing on or operating the farm, and all uses are
19 screened from public roads and adjacent lots:

20 a. Blacksmith shop

21 b. Farm machinery repair

22 c. Lawn and garden equipment repair

23 d. Welding

24 10. Farm stands subject to the requirements of Section 128.0.I.

25 11. Farm Winery—Class 1A or Farm Brewery—Class 1A, subject to the requirements of
26 Section 128.0.O.

27 12. Snowball stands, subject to the requirements of Section 128.0.D.

28 13. Home-based contractor, subject to the requirements of Section 128.0.C.2.

- 1 14. The acceptance or disposal of off-site land clearing debris under a permit issued by
- 2 the Department of Planning and Zoning, subject to the requirements of Section
- 3 128.0.D.
- 4 15. Value-added processing of agricultural products, subject to the requirements of
- 5 Section 128.0.I.
- 6 16. Agritourism enterprises and pick-your-own marketing of farm products, subject to
- 7 the requirements of Section 128.0.I.
- 8 17. Small Wind Energy System, building mounted, subject to the requirements of
- 9 Section .0.L.
- 10 18. Riding Academies and Stables, subject to the requirements of Section 128.0.I.
- 11 19. Community Supported Agriculture, subject to the requirements of Section 128.0.I.
- 12 20. Food Hubs, subject to the requirements of Section 128.0.I.
- 13 21. Accessory Solar Collectors.
- 14 22. Residential chicken keeping, subject to the requirements of Section 128.0.D.
- 15 23. Livestock on residential lots or parcels, subject to the requirements of Section
- 16 128.0.D.
- 17 24. COMPOSTING FACILITIES, SUBJECT TO THE REQUIREMENTS OF SECTION 128.0.I.

19 SECTION 106.1: County Preservation Easements

20 C. Accessory Uses

- 21 1. ALPP Purchased Easements and ALPP Dedicated Easements
- 22 a. Any use normally and customarily incidental to any use permitted as a matter of
- 23 right in the RC and/or RR Districts.
- 24 b. Farm tenant houses on parcels greater than 50 acres, subject to the Deed of
- 25 Agricultural Preservation Easement and approval by the Agricultural Land
- 26 Preservation Board. the parcel on which the farm tenant house will be located
- 27 must be improved with a principal dwelling unless, based on justification of need

- 1 submitted by the applicant, the Director of the Department of Planning and
2 Zoning authorizes an exception to this requirement.
- 3 c. Accessory apartments, subject to the requirements of Section 128.0.A.
 - 4 d. Housing by a resident family of boarders and/or elderly persons subject to the
5 requirements of Sections 104.0.C.4 or 105.0.C.4.
 - 6 e. Home occupations, subject to the requirements of Section 128.0.C.
 - 7 f. Home care, subject to the requirements of Sections 104.0.C.6 or 105.0.C.6.
 - 8 g. Parking of commercial vehicles, subject to the requirements of Sections
9 104.0.C.7 or 105.0.C.7.
 - 10 h. Storage of recreational vehicles or boats, subject to the requirements of Sections
11 104.0.C.8 or 105.0.C.8.
 - 12 i. Commercial services, subject to the requirements of Sections 104.0.C.9 or
13 105.0.C.9.
 - 14 (1) Blacksmith shop
 - 15 (2) Farm machinery repair
 - 16 (3) Lawn and garden equipment repair
 - 17 (4) Welding
 - 18 j. Farm stands, subject to the requirements of Section 128.0.I.
 - 19 k. Snowball stands, subject to the requirements of Section 128.0.D.
 - 20 l. Value-added processing of agricultural products subject to the requirements of
21 Section 128.0.I.
 - 22 m. Agritourism enterprises, subject to the requirements of Section 128.0.I.
 - 23 n. Pick-your-own marketing of farm products, subject to the requirements of
24 Section 128.0.I.
 - 25 o. Farm winery—Class 1A or Farm Brewery—Class 1A, subject to the requirements
26 of Section 128.0.O.
 - 27 p. Small wind energy system, building mounted, subject to the requirements of
28 Section 128.0.L.
 - 29 q. Small wind energy system, freestanding tower on properties 5 acres or greater,
30 subject to the requirements of Section 128.0.M.

- 1 r. Riding stables and academies, subject to the requirements of Section 128.0.I.
- 2 s. Community Supported Agriculture (CSA), subject to the requirements of Section
- 3 128.0.I.
- 4 t. Food hubs, subject to the requirements of Section 128.0.I.
- 5 u. Accessory Solar Collectors.
- 6 v. Residential chicken keeping, subject to the requirements of Section 128.0.D.
- 7 w. Livestock on residential lots or parcels, subject to the requirements of Section
- 8 128.0.D.
- 9 X. COMPOSTING FACILITIES, SUBJECT TO THE REQUIREMENTS OF SECTION 128.0.I.

10
11 **D. Conditional Uses**

12 1. ALPP Purchased Easements and ALPP Dedicated Easements

- 13 a. Conditional Uses shall not be allowed on agricultural preservation easements
- 14 unless they support the primary agricultural purpose of the easement property, or
- 15 are an ancillary business which supports the economic viability of the farm, and
- 16 are approved by the [[hearing authority]] HEARING AUTHORITY in accordance
- 17 with the applicable provisions of Sections 130.0 and 131.0 of these regulations.
- 18 On an ALPP purchased or dedicated easement property, the area devoted to
- 19 Conditional Uses may not exceed a cumulative use cap equal to 2% of the
- 20 easement or up to a maximum of 1 acre for preservation parcels created as part of
- 21 the Cluster Subdivision process.

22 The following Conditional Uses may be allowed:

- 23 (1) Animal hospitals
- 24 (2) Barber shop, hair salon and similar personal services facilities
- 25 (3) Bottling of spring or well water
- 26 (4) Communication Towers
- 27 (5) Farm tenant house on a parcel of at least 25 acres but less than 50 acres
- 28 (6) Historic building uses
- 29 (7) Home based contractors

- 1 (8) Home occupations
- 2 (9) Kennels and/or pet grooming establishments
- 3 (10) Landscape contractors
- 4 (11) Limited [[outdoor]] social assemblies
- 5 (12) Sawmills or bulk firewood processing
- 6 (13) School buses, commercial service
- 7 (14) Small wind energy systems, freestanding tower

8 b. In addition, the following Conditional Uses which may require additional land area
9 may be permitted on agricultural preservation easements:

- 10 (1) Agribusiness, limited to uses itemized in Section 131.0.N.
- 11 (2) Farm winery—class 2
- 12 (3) Solar Facilities, commercial
- 13 (4) NATURAL WOOD WASTE RECYCLING FACILITY IF ACCESSORY TO A
- 14 HORTICULTURAL NURSERY, SUBJECT TO THE REQUIREMENTS OF SECTION
- 15 131.0.O.6.

16
17
18 **SECTION 122.0: M-1 (Manufacturing: Light) District**

19
20 **B. Uses Permitted as a Matter of Right**

- 21 1. Ambulance services.
- 22 2. Ambulatory health care facilities.
- 23 3. Athletic facilities, commercial.
- 24 4. Banks, savings and loan associations, investment companies, credit unions, brokers
- 25 and similar financial institutions.
- 26 5. Biodiesel fuel manufacturing from vegetable-based oils.
- 27 6. Biomedical laboratories.

- 1 7. Blueprinting, printing, duplicating or engraving services.
- 2 8. Breweries that manufacture 22,500 barrels or less of fermented malt beverages per
- 3 year.
- 4 9. Bus terminals.
- 5 10. Carpet and floor covering stores.
- 6 11. Car wash facilities.
- 7 12. Carnivals and fairs sponsored by and operated on a nonprofit basis for the benefit of
- 8 charitable, social, civic or educational organizations, subject to the requirements of
- 9 Section 128.0.D.
- 10 13. Carpet and rug cleaning.
- 11 14. Catering establishments and banquet facilities.
- 12 15. Child day care centers and nursery schools.
- 13 16. Concert halls.
- 14 17. Conservation areas, including wildlife and forest preserves, environmental
- 15 management areas, reforestation areas, and similar uses.
- 16 18. Contractor's office and outdoor or indoor storage facility, including carpentry,
- 17 cleaning, construction, electrical, excavation, exterminating, heating/air conditioning,
- 18 home improvement, landscaping, masonry, painting, paving, plumbing, roofing,
- 19 septic system, snow removal, well drilling, and other contractors.
- 20 19. Data processing and telecommunication centers.
- 21 20. Day treatment or care facilities.
- 22 21. Farming, provided that on a residential lot or parcel of less than 40,000 square feet
- 23 no livestock shall be permitted. However, residential chicken keeping is allowed as
- 24 noted in Section 128.0.
- 25 22. Flex-space.
- 26 23. Funeral homes and mortuaries.
- 27 24. Furniture, appliance and business machine repair, furniture upholstering, and similar
- 28 services.

- 1 25. Furniture stores.
- 2 26. Government structures, facilities and uses, including public schools and colleges.
- 3 27. Hotels, motels, conference centers and country inns.
- 4 28. Kennels.
- 5 29. Laundry or dry cleaning establishments or plants.
- 6 30. Light Industrial Uses.
- 7 31. Material recovery facilities—source separated.
- 8 32. Mobile home and modular home sales and rentals, but not including occupancy.
- 9 33. Motor vehicle, construction equipment and farm equipment maintenance, repair and
- 10 painting facilities, including full body repair and incidental sale of parts.
- 11 34. Motor vehicle, construction equipment and farm equipment sales and rentals.
- 12 35. Motor vehicle inspections station.
- 13 36. Motor vehicle towing and storage facility.
- 14 [[37. Mulch Manufacture]].
- 15 37. NATURAL WOOD WASTE RECYCLING AND NATURAL WOOD WASTE RECYCLING
- 16 FACILITIES.

17
18
19 **SECTION 123.0: M-2 (Manufacturing: Heavy) District**

20
21 **B. Uses Permitted as a Matter of Right**

- 22 1. All uses permitted as a matter of right in the M-1 District.
- 23 2. Biodiesel Fuel Manufacturing.
- 24 3. Breweries that manufacture more than 22,500 barrels of fermented malt beverages
- 25 per year.
- 26 4. COMPOSTING FACILITIES, TIER 1 AND TIER 2 – SMALL AND TIER 2 – LARGE, AS
- 27 DEFINED IN COMAR IF THE PARCEL DOES NOT ABUT RESIDENTIALLY ZONED PROPERTY.

1 **SECTION 124.0: SW (Solid Waste) Overlay District**

2
3 **B. Uses Permitted as a Matter of Right if the Underlying District is M-2:**

- 4 1. COMPOSTING FACILITIES, TIER 3.
- 5 2. ~~[[1]]~~ Land clearing debris landfills.
- 6 3. ~~[[2]]~~ Rubble landfills.
- 7 4. ~~[[3]]~~ Solid waste processing facilities.
- 8 5. ~~[[4]]~~ Underground pipelines; electric transmission and distribution lines; telephone,
9 telegraph and CATV lines; mobile transformer units; telephone equipment boxes;
10 and other, similar public utility uses not requiring a Conditional Use.

11
12
13 **SECTION 128.0: Supplementary Zoning District Regulations**

14
15 **I. Permits for Special Farm Uses**

16
17 The Department of Planning and Zoning may approve permits for the following categories
18 of uses, which are related to farming and agriculture. A permit shall only be approved if the
19 Department of Planning and Zoning finds that the proposed use conforms with the criteria
20 given below and that are listed for each category.

21
22 Except for the value-added agricultural processing category, the Pick-Your-Own
23 Enterprises category, and the small farm stand category, all other categories above shall
24 comply with the requirement that the lot or parcel upon which the operation is located shall
25 have frontage on and direct access to a road classification as an arterial or collector public
26 road, or may front on and have direct access to a local road, if:

- 27 (1) Access to an arterial or collector public road right-of-way is not feasible;
- 28 (2) The access to the local road is safe based on road conditions and accident history;

1 (3) That the use of the local road for access will not unduly conflict with other uses that
2 access the local road.

3
4 The petitioner shall submit a request for a permit in writing, either in a letter or using a
5 form provided by the Department of Planning and Zoning. The request shall specify the
6 proposed permit category and provide a written description of the use and justification
7 addressing how the proposed use compiles with the criteria applicable to the use. The
8 petitioner shall specify the address of the property for the proposed use, and shall provide a
9 mailing address, if different, a phone number and an email address if used, for purposes of
10 future communication about the request.

11
12 For categories which will include visits to the property by customers or participants, the
13 request shall specify the requested hours of operation of the use. In approving a permit, the
14 Department of Planning and Zoning may reduce the hours of operation if it determines that
15 this will reduce adverse impacts on adjacent properties.

16
17 The permit request shall include a plan of the property depicting the location and
18 dimensions of structures, parking areas, driveways and landscaping used to buffer any
19 adjacent residential development.

20
21 If the Department of Planning and Zoning determines that the proposed use is not in
22 compliance with the applicable criteria, it shall inform the petitioner as to what is necessary
23 to achieve compliance.

24
25 UNLESS OTHERWISE SPECIFIED BELOW, once a permit is approved and is issued, the permit
26 shall be valid indefinitely provided that the operation of the approved use remains in full
27 conformance with all aspects of the use as it was approved. The permit holder shall apply
28 for a renewal of the permit if significant changes to the operation are being proposed,

1 including but not limited to new uses or structures, in which case the originally approved
2 plan must be revised to indicate the proposed changes and submitted for a new approval.
3
4

5 9. COMPOSTING FACILITY

6 A TIER I OR TIER II-SMALL COMPOSTING FACILITY, AS DEFINED IN COMAR, IS
7 PERMITTED AS AN ACCESSORY USE TO FARMING IN THE RC AND RR DISTRICTS PROVIDED
8 THAT:

9 A. THE COMPOSTING FACILITY SHALL NOT EXCEED THREE ACRES.

10 B. THE PETITIONER SHALL SUBMIT A COPY OF THE FOLLOWING DOCUMENTS WITH THE
11 APPLICATION:

12 (1) THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) COMPOSTING PERMIT
13 APPLICATION.

14 (2) COMPOSTING OPERATIONS PLAN.

15 (3) EMERGENCY PREPAREDNESS PLAN, AS REQUIRED BY MDE, FOR REVIEW BY THE
16 FIRE MARSHAL.

17 (4) AN APPROVED HOWARD SOIL CONSERVATION DISTRICT (HSCD) SUPPLEMENTARY
18 PROJECT EVALUATION WHICH ADDRESSES KEY NATURAL RESOURCE ISSUES SUCH AS
19 STREAM AND WETLAND PROTECTION, WINDBREAK, VIEWSCAPE, WATER QUALITY
20 AND RUNOFF CONTAINMENT, VEGETATIVE BUFFERS, OR ANY OTHER MITIGATION
21 MEASURES TO MINIMIZE IMPACTS TO ENVIRONMENTAL RESOURCES ON ADJACENT
22 PROPERTIES.

23 (5) VERIFICATION THAT HOWARD COUNTY, DEPARTMENT OF PUBLIC WORKS-
24 ENVIRONMENTAL SERVICES HAS BEEN NOTIFIED THAT A COMPOSTING FACILITY IS
25 PROPOSED FOR PURPOSES OF THE SOLID WASTE MANAGEMENT PLAN.

26 C. ON-SITE RETAIL SALES MAY NOT EXCEED 5% OF THE TOTAL YEARLY PRODUCTION, AS
27 REPORTED TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE).

28 D. END PRODUCT MAY BE SHIPPED WITH TREES, SHRUBS OR PLANTS.

1 E. AS PART OF THE APPLICATION PROCESS, THE OWNER SHALL SUBMIT A SITE LAYOUT,
2 WHICH INCLUDES ACREAGE, COMPOSTING FACILITY OPERATIONAL AREA, SCREENING
3 AND ANY MITIGATION MEASURES IDENTIFIED IN THE APPROVED HSCD
4 SUPPLEMENTARY SITE EVALUATION. AFTER TWO YEARS, THE OWNER SHALL PROVIDE
5 DOCUMENTATION TO DPZ PROVING COMPLIANCE WITH THE 5% RETAIL SALES
6 REQUIREMENT IN SECTION 128.0.I.9.C. AND THAT THE USE REMAINS IN COMPLIANCE
7 WITH ALL OTHER APPROVAL CRITERIA.

8 IN ACCORDANCE WITH PARAGRAPHS C. AND D. OF THIS SUBSECTION 9, A FARMER WHO
9 PRODUCES COMPOST IN EXCESS OF THE AMOUNT THAT MAY BE USED ON THE FARMER'S
10 FARM IN ACCORDANCE WITH THE NUTRIENT MANAGEMENT PLAN FOR THE FARM MAY SELL
11 THE EXCESS COMPOST, PROVIDED THERE IS NO OUTSTANDING INSTALLMENT PURCHASE
12 AGREEMENT FOR AN AGRICULTURAL LAND PRESERVATION EASEMENT ON THE PROPERTY,
13 OR, IF THERE IS SUCH AN INSTALLMENT PURCHASE AGREEMENT, SALES MAY NOT EXCEED
14 5% OF THE TOTAL YEARLY PRODUCTION, AS REPORTED TO THE MARYLAND DEPARTMENT
15 OF THE ENVIRONMENT (MDE).

1

Section 131.0: Conditional Uses

2 N. Conditional uses and permissible zoning districts

Conditional Use	Zoning Districts																							
	RC	RR	RE	R2	R1	RS	RS-8	RS-15	RA-15	RA-15	RA-15	RA-15	RA-15	RA-15	RA-15	RA-15	RA-15	RA-15	RA-15	RA-15	RA-15	RA-15	RA-15	
Sawmills, Bulk Firewood Processing, [[Mulch Manufacture,]] or Soil Processing	✓	✓																						
[[Yard Waste Composting Facility	✓	✓																						✓

3

4

5 **46. Sawmills, Bulk Firewood Processing [[, Mulch Manufacture,]] or Soil Processing**

6 A Conditional Use may be granted in the RC or RR Districts for sawmills, bulk firewood
 7 processing [[, mulch manufacture,]] or soil processing provided that:

- 8 a. Buildings and structures used for processing activities, equipment and outdoor uses
 9 associated with the operation shall be at least 500 feet from existing residences on

1 different lots and at least 300 feet from property lines. Buildings or structures which are
2 principally used for storage and which are not used for processing activities shall be at
3 least 100 feet from property lines.

- 4 b. All required State and Federal permits have been obtained. The hearing authority, as a
5 condition of approval, may impose requirements which are more stringent than the
6 requirements of the State and Federal permits.
- 7 c. Parking, storage areas and equipment shall be screened from adjoining properties and
8 public roads by landscaping or other appropriate means.
- 9 d. Hours of operation shall be established by the Hearing Authority.
- 10 e. Retail sales of materials produced on-site may be permitted if specifically approved by the
11 Hearing Authority.
- 12 f. The minimum lot size is 10 acres.
- 13 g. The vehicular access to the use shall be from an arterial or collector highway and not from
14 a local road unless authorized by the Hearing Examiner.
- 15 h. On an Agricultural Land Preservation easement property, sawmills and bulk firewood
16 processing are permitted with the following required additional criteria:
 - 17 (1) The use shall not interfere with farming operations or limit future farming production.
 - 18 (2) Any new building or building addition associated with the use, including any outdoor
19 storage and parking area shall count towards the cumulative use cap of the easement.

20
21 **[[60. Yard Waste Composting Facility**

22 A Conditional Use may be granted in the RC, RR, or M-1 Districts for a yard waste composting
23 facility, provided that:

- 24 a. Only yard waste (leaves, grass, brush, yard trimmings) and natural wood waste (tree
25 and other vegetative refuse including tree stumps, limbs and root mats) shall be
26 received for composting on the site.
- 27 b. All required State and Federal permits have been obtained. The hearing Authority, as a
28 condition of approval, may impose requirements which are more stringent than the
29 requirements of the State and Federal permits.

- 1 c. In addition to the Bulk Regulations of the applicable zoning district, the following
2 structure and use setbacks shall apply:
- 3 (1) From an existing residence on a different lot 500 feet
4 (2) From adjacent residentially-zoned lots 300 feet
5 (3) From public street rights-of-way 100 feet
6 (4) From existing streams and wetlands 100 feet
- 7 d. A landscaped buffer area with a minimum width of 100 feet shall be maintained around
8 the perimeter of the site. The landscaped buffer shall be used only for planting, fencing,
9 and driveways for ingress and egress to the site.
- 10 e. The operation shall not result in odors which are detectable on surrounding properties.
- 11 f. The operation shall be conducted in a safe and environmentally sound manner, as
12 prescribed by law or regulations and with respect to the likelihood of hazard to persons
13 or damage to lands, natural resources, streets, bridges, and public rights-of-way.
- 14 g. The operation shall be conducted in a manner which will prevent insect and/or rodent
15 infestation.
- 16 h. The facility shall be maintained in a clean and sanitary condition. Areas where yard
17 waste or compost is processed, loaded, or unloaded shall be designed and constructed
18 to drain freely to prevent the accumulation of standing liquid.
- 19 i. All liquid, including leachate and storm water runoff, generated from the composting
20 facility shall be collected and treated prior to disposal, in accordance with applicable
21 regulations.
- 22 j. In the RC and RR Districts, the hours of operation shall be restricted to between 7:00
23 a.m. and 6:00 p.m., and no operation shall be permitted on Sundays except repairs to
24 equipment and improvements.
- 25 k. On-site retail sales of finished compost shall be permitted if specifically approved by
26 the Hearing Authority.

- 1 l. The structural elements of the roads serving the site shall be adequate for the truck
2 traffic to be generated by the composting facility. The petition shall include a road
3 condition study to allow the hearing authority to make this determination.
- 4 m. The Conditional Use Plan submitted with the petition shall show the following:
- 5 (1) Survey boundaries of the subject property.
- 6 (2) Existing natural features including streams, ponds, springs, and wetlands.
- 7 (3) Existing and proposed topography.
- 8 (4) Setback and buffer area, including type of screening and fencing.
- 9 (5) Portion of tract to be used for composting operations, including the location and
10 layout of:
- 11 (a) Yard waste unloading, receiving and storage areas;
- 12 (b) Yard waste processing areas, including areas for grinding, screening, mixing
13 and other operations to prepare yard waste for composting;
- 14 (c) Composting areas;
- 15 (d) Compost curing areas;
- 16 (e) Compost final product preparation areas (screening and other operations); and
- 17 (f) Finished compost storage and loading areas.
- 18 (6) Existing and proposed structures and major mechanical equipment.
- 19 (7) Existing and proposed access driveways.
- 20 (8) Water supply (including quantity requirements) and sewage disposal.
- 21 (9) Storm water management facilities for quantity and quality control.
- 22 (10) Facilities for storage and treatment of leachate and any other liquids generated by
23 the operation.
- 24 (11) Other existing or proposed uses on the site.
- 25 n. An Operations Plan shall be submitted by the applicant to enable the Hearing Authority
26 to evaluate the potential impacts of the proposed use. If the petition is approved,
27 substantial changes to the operations plan shall not be implemented without prior
28 approval of the Hearing Authority. The plan shall provide the following information:
- 29 (1) Types, anticipated quantities and sources of yard waste.

- 1 (2) Methods by which unacceptable wastes delivered to the facility will be identified,
2 segregated, and handled for removal and disposal.
- 3 (3) Off-site location where unacceptable wastes delivered to the composting facility
4 will be disposed of.
- 5 (4) Methods by which waste quantities delivered will be determined including
6 weighing facilities to be provided.
- 7 (5) A description of major items of equipment and associated capacities.
- 8 (6) A description of proposed buildings and pads for storage, composting and
9 processing.
- 10 (7) A description of yard waste delivery methods and requirements.
- 11 (8) A description of incoming yard waste handling and processing methods including
12 processing capacity and storage volume to be provided.
- 13 (9) A description of the composting process to be utilized including composting
14 capacity to be provided, composting technology, required composting time, and
15 assurance of acceptable level of pathogen reduction.
- 16 (10) A description of compost curing, handling and processing methods including
17 processing capacity and storage volume to be provided.
- 18 (11) A description of finished compost storage, distribution and delivery methods and
19 requirements.
- 20 (12) Methods of controlling odors, dust, litter, noise, and insect or rodent infestation;
21 methods of insuring public safety; methods of preventing and, if necessary,
22 controlling fires; and methods of collecting and treating liquids generated by the
23 use.
- 24 (13) Procedures for cleaning and maintaining the appearance of the facility, including
25 collection of litter and waste which falls from transport vehicles in the vicinity of
26 the site, including adjacent private properties and public roads.
- 27 o. A Rehabilitation Plan shall be submitted at the time of the Conditional Use Application
28 for approval by the Hearing Authority. The plan shall provide for the following
29 minimum rehabilitation program:

- 1 (1) All structures and machinery shall be completely removed and underlying
2 excavations filled to grade and planted in grass except structures or machinery that
3 are to be continued in operation for a use permitted under the zoning classification.
- 4 (2) All impervious surfaces shall be removed and properly disposed of. The areas from
5 which the surfaces are removed shall be backfilled with suitable soil and regraded
6 as necessary to provide adequate drainage. All such areas shall be planted in grass
7 which shall be maintained through one year's growth.
- 8 (3) All yard waste, composting material, and finished compost shall be removed from
9 the site and shall be disposed of in conformance with applicable laws or regulations.
- 10 (4) All access roads shall be suitably barricaded to prevent the passage of vehicles
11 either into or out of the abandoned area, except such access as needed for vehicles
12 used in rehabilitation work, until the plan for rehabilitation has been completed and
13 a different use necessitating access has commenced on the property.]]
- 14

15 **O. New conditional use categories**

16 **2. COMPOSTING FACILITIES**

17 A CONDITIONAL USE MAY BE GRANTED IN THE RC AND RR DISTRICTS FOR TIER 1 AND TIER 2 -
18 SMALL, AS DEFINED IN COMAR, IN THE M-1 DISTRICT FOR TIER 1 AND TIER 2 - SMALL
19 COMPOSTING FACILITIES, AND IN THE M-2 DISTRICT FOR TIER 1, TIER 2-SMALL, AND TIER 2-
20 LARGE COMPOSTING FACILITIES ON PARCELS THAT ABUT RESIDENTIALLY ZONED PROPERTY,
21 PROVIDED THAT:

- 22 A. THE FACILITY IS NOT LOCATED ON AN ALPP PURCHASED, ALPP DEDICATED, OTHER
23 DEDICATED EASEMENT OR MARYLAND AGRICULTURAL LAND PRESERVATION FOUNDATION
24 EASEMENT.
- 25 B. ONLY TYPE 1 AND TYPE 2 FEEDSTOCK MATERIALS AS DEFINED IN COMAR SHALL BE
26 PROCESSED.
- 27 C. THE MINIMUM LOT SIZE IS 10 ACRES IN THE RC AND RR DISTRICTS AND ONE ACRE IN THE
28 M-1 AND M-2 DISTRICTS.
- 29 D. THE MAXIMUM USE AREA IN THE RC AND RR DISTRICTS IS 1 ACRE OR FOR PROPERTIES
30 THAT ABUT AN INTERSTATE, THE MAXIMUM USE AREA IS 5 ACRES OR 10% OF PROPERTY,

1 WHICHEVER IS LESS. A COMPOSTING FACILITY CONDITIONAL USE SHALL NOT BE GRANTED
2 TO A PROPERTY WITH AN APPROVED NATURAL WOOD WASTE RECYCLING FACILITY
3 CONDITIONAL USE UNLESS THE PROPERTY ABUTS AN INTERSTATE AND VEHICULAR ACCESS
4 IS WITHIN 1 MILE OF THE INTERCHANGE GORE AREA, AS MEASURED ALONG THE NEAREST
5 PUBLIC ROAD RIGHT-OF-WAY.

6 E. THE PETITIONER SHALL SUBMIT A COPY OF THE FOLLOWING DOCUMENTS WITH THE
7 PETITION.

8 (1) THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) COMPOSTING PERMIT
9 APPLICATION.

10 (2) COMPOSTING OPERATIONS PLAN.

11 (3) EMERGENCY PREPAREDNESS PLAN, AS REQUIRED BY MDE, FOR REVIEW BY THE FIRE
12 MARSHAL.

13 (4) IN THE RC AND RR DISTRICTS, AN APPROVED HOWARD SOIL CONSERVATION DISTRICT
14 (HSCD) SUPPLEMENTARY PROJECT EVALUATION WHICH ADDRESSES KEY NATURAL
15 RESOURCE ISSUES SUCH AS STREAM AND WETLAND PROTECTION, WINDBREAK,
16 VIEWSCAPE, WATER QUALITY AND RUNOFF CONTAINMENT, VEGETATIVE BUFFERS, OR
17 ANY OTHER MITIGATION MEASURES TO MINIMIZE IMPACTS TO ENVIRONMENTAL
18 RESOURCES ON ADJACENT PROPERTIES.

19 (5) VERIFICATION THAT HOWARD COUNTY, DEPARTMENT OF PUBLIC WORKS-
20 ENVIRONMENTAL SERVICES HAS BEEN NOTIFIED THAT A COMPOSTING FACILITY IS
21 PROPOSED FOR PURPOSES OF THE SOLID WASTE MANAGEMENT PLAN.

22 F. CONDITIONAL USE APPROVAL SHALL BE CONTINGENT UPON OBTAINING AN MDE PERMIT
23 AND SHALL NOT COMMENCE UNTIL A COPY OF THE PERMIT IS SUBMITTED TO DPZ.

24 G. ANY MDE COMPOSTING FACILITY PERMIT RENEWALS OR MODIFICATIONS TO THE ORIGINAL
25 COMPOSTING FACILITY OPERATIONS PLAN MUST BE SUBMITTED TO DPZ.

26
27 MAJOR MODIFICATIONS TO THE MDE COMPOSTING FACILITY PERMIT OR COMPOSTING
28 FACILITY OPERATIONS PLAN SHALL NOT BE IMPLEMENTED WITHOUT PRIOR APPROVAL OF
29 THE HEARING AUTHORITY. MAJOR MODIFICATIONS CONSIST OF A SIGNIFICANT AND
30 SUBSTANTIVE CHANGE TO AN INDIVIDUAL COMPOSTING FACILITY PERMIT INCLUDING:

- 1 (1) A CHANGE IN THE FACILITY TIER
- 2 (2) A SIGNIFICANT INCREASE IN FACILITY CAPACITY, THROUGHPUT, OR COMPOST
- 3 PRODUCED PER YEAR
- 4 (3) A SIGNIFICANT CHANGE TO THE SIZE OF THE AREA USED IN SUPPORT OF COMPOSTING
- 5 (4) ANY OTHER SIGNIFICANT CHANGES TO THE DESIGN OR OPERATION OF THE COMPOSTING
- 6 FACILITY.

7 H. IN ADDITION TO THE BULK REGULATIONS OF THE APPLICABLE ZONING DISTRICT, THE
 8 FOLLOWING STRUCTURE AND USE SETBACKS SHALL APPLY:

- 9 (1) FROM EXISTING DWELLINGS ON DIFFERENT LOTS.....500 FEET
- 10 (2) FROM A RESIDENTIAL LOT300 FEET
- 11 (3) FROM EXISTING STREAMS AND WETLANDS.....200 FEET
- 12 (4) FROM PROPERTY LINES OF EXISTING SCHOOLS.....500 FEET

13
 14 THE HEARING AUTHORITY MAY REDUCE SETBACKS IF IT FINDS THAT NEIGHBORING
 15 PROPERTIES WILL NOT BE ADVERSELY AFFECTED DUE TO VISUAL IMPACT, NOISE, DUST,
 16 ODORS OR OTHER CAUSES AND THAT STRUCTURES AND USES OF THE FACILITY WILL BE
 17 LOCATED AT LEAST 200 FEET FROM EXISTING DWELLINGS ON DIFFERENT LOTS, AT LEAST 50
 18 FEET FROM RESIDENTIAL LOTS, AND AT LEAST 100 FEET FROM A STREAM OR WETLAND.
 19 SETBACKS FROM PROPERTY LINES OF EXISTING SCHOOLS CANNOT BE REDUCED.

20
 21 THE PETITIONER SHALL SUBMIT DOCUMENTATION THAT JUSTIFIES THE REQUESTED
 22 SETBACK REDUCTION. STRUCTURES AND USE AREAS FOR WHICH THIS SETBACK REDUCTION
 23 IS APPROVED SHALL BE BUFFERED FROM THE VIEW OF ADJOINING RESIDENCES BY EXISTING
 24 TOPOGRAPHY, LANDSCAPING, OR BERMS, FENCES OR WALLS. BUFFERS OR OTHER
 25 MITIGATION MEASURES ESTABLISHED THROUGH A HCSD SUPPLEMENTARY PROJECT
 26 EVALUATION FOR THE AREA CAN BE USED TO JUSTIFY SETBACK REDUCTIONS.

27
 28 I. SCREENING: ALL ACTIVITIES SHALL BE APPROPRIATELY SCREENED FROM THE PUBLIC RIGHT
 29 OF WAY OR ADJACENT RESIDENTIAL DWELLINGS BY ANY COMBINATION OF STRUCTURAL,
 30 TOPOGRAPHIC OR VEGETATIVE MEANS.

- 1 J. A SITE DEVELOPMENT PLAN, AS REQUIRED BY SECTION 16.155 OF THE HOWARD COUNTY
2 LAND DEVELOPMENT AND SUBDIVISION REGULATIONS SHALL BE REQUIRED AS A
3 CONDITION OF APPROVAL.
- 4 K. ALL LIQUID, INCLUDING LEACHATE AND STORM WATER RUNOFF, GENERATED FROM THE
5 COMPOSTING FACILITY SHALL BE TREATED PRIOR TO DISPOSAL, IN ACCORDANCE WITH
6 APPLICABLE REGULATIONS.
- 7 L. THE HOURS OF OPERATION SHALL BE RESTRICTED TO BETWEEN 7:00 A.M. AND 6:00 P.M.,
8 AND NO OPERATION SHALL BE PERMITTED ON SUNDAYS EXCEPT REPAIRS TO EQUIPMENT
9 AND IMPROVEMENTS. THE HOURS OR DAYS OF OPERATION MAY BE REDUCED BY THE
10 HEARING AUTHORITY.
- 11 M. ON-SITE RETAIL SALES OF FINISHED PRODUCTS SHALL BE PERMITTED IF SPECIFICALLY
12 APPROVED BY THE HEARING AUTHORITY.
- 13 N. ROADS SERVING THE SITE SHALL BE ADEQUATE FOR THE TRUCK TRAFFIC TO BE GENERATED
14 BY THE FACILITY. THE PETITION SHALL INCLUDE A STUDY OF AFFECTED ROAD AND BRIDGE
15 CONDITIONS TO ALLOW THE HEARING AUTHORITY TO MAKE THIS DETERMINATION.
- 16 O. IN ADDITION TO THE STANDARD CONDITIONAL USE PLAN REQUIREMENTS, THE PETITION
17 SHALL SHOW THE FOLLOWING:
- 18 (1) EXISTING NATURAL FEATURES INCLUDING STREAMS, PONDS, SPRINGS, AND WETLANDS
19 AND REQUIRED ENVIRONMENTAL SETBACKS.
- 20 (2) EXISTING AND PROPOSED TOPOGRAPHY.
- 21 (3) SETBACK AND BUFFER AREA, INCLUDING TYPE OF SCREENING AND FENCING.
- 22 (4) PORTION OF LOT TO BE USED FOR ALL OPERATIONS, INCLUDING THE LOCATION AND
23 LAYOUT OF:
- 24 (A) UNLOADING, RECEIVING AND STORAGE AREAS;
- 25 (B) PROCESSING AREAS;
- 26 (C) FINAL PRODUCT PREPARATION AREAS; AND
- 27 (D) FINISHED PRODUCT STORAGE AND LOADING AREAS.
- 28 (5) WATER SUPPLY AND SEWAGE DISPOSAL
- 29 (6) FACILITIES FOR STORAGE AND TREATMENT OF LEACHATE AND ANY OTHER LIQUIDS
30 GENERATED BY THE OPERATION

1 (7) STORMWATER MANAGEMENT FACILITIES FOR QUANTITY AND QUALITY CONTROL.

2 P. A REHABILITATION PLAN SHALL BE SUBMITTED WITH THE PETITION FOR APPROVAL BY THE
3 HEARING AUTHORITY. THE PLAN SHALL PROVIDE FOR THE FOLLOWING MINIMUM
4 REHABILITATION PROGRAM IF THE COMPOSTING FACILITY CEASES TO OPERATE FOR TWO
5 YEARS OR MORE:

6 (1) ALL STRUCTURES AND MACHINERY SHALL BE COMPLETELY REMOVED AND
7 UNDERLYING EXCAVATIONS FILLED TO GRADE EXCEPT STRUCTURES OR MACHINERY
8 THAT ARE TO BE CONTINUED IN OPERATION FOR A USE PERMITTED UNDER THE ZONING
9 CLASSIFICATION.

10 (2) ALL WASTE, COMPOSTING MATERIALS, AND EXCESS FINISHED PRODUCTS SHALL BE
11 REMOVED FROM THE SITE AND DISPOSED OF IN CONFORMANCE WITH APPLICABLE LAWS
12 OR REGULATIONS.

13 (3) A COPY OF THE NOTICE OF FINAL CLOSURE AND THE SITE CLOSURE PLAN REQUIRED BY
14 COMAR SHALL BE SUBMITTED TO DPZ.
15

16 4. NATURAL WOOD WASTE RECYCLING FACILITY

17 A CONDITIONAL USE MAY BE GRANTED IN THE RC AND RR DISTRICTS FOR A NATURAL WOOD
18 WASTE RECYCLING FACILITY, PROVIDED THAT:

- 19 A. FACILITIES LOCATED ON A MARYLAND AGRICULTURAL LAND PRESERVATION
20 FOUNDATION EASEMENT, ALPP PURCHASED EASEMENT, OR ALPP DEDICATED EASEMENT
21 NOT CREATED AS PART OF THE CLUSTER SUBDIVISION PROCESS MAY BE GRANTED A
22 CONDITIONAL USE ONLY IF THE NATURAL WOOD WASTE RECYCLING FACILITY IS
23 ACCESSORY TO A HORTICULTURAL NURSERY. HOWEVER, THE USE AREA SHALL NOT
24 EXCEED 15% OF THE AREA IN ACTIVE PRODUCTION OR A MAXIMUM OF 1 ACRE, AND ON-SITE
25 RETAIL SALES MAY NOT EXCEED 5% OF THE TOTAL YEARLY PRODUCTION, AS REPORTED TO
26 THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE).
- 27 B. ONLY NATURAL WOOD WASTE AS DEFINED IN THESE REGULATIONS SHALL BE RECEIVED FOR
28 RECYCLING ON THE SITE.
- 29 C. THE MINIMUM LOT SIZE IS 10 ACRES.

- 1 D. THE MAXIMUM USE AREA IS 1 ACRE OR FOR PROPERTIES THAT ABUT AN INTERSTATE, THE
2 MAXIMUM USE AREA IS 5 ACRES OR 10% OF PROPERTY, WHICHEVER IS LESS. A NATURAL
3 WOOD WASTE RECYCLING FACILITY CONDITIONAL USE SHALL NOT BE GRANTED TO A
4 PROPERTY WITH AN APPROVED COMPOSTING FACILITY CONDITIONAL USE UNLESS THE
5 PROPERTY ABUTS AN INTERSTATE AND VEHICULAR ACCESS IS WITHIN 1 MILE OF THE
6 INTERCHANGE GORE AREA, AS MEASURED ALONG THE NEAREST PUBLIC ROAD RIGHT-OF-
7 WAY.
- 8 E. THE PETITIONER SHALL SUBMIT A COPY OF THE FOLLOWING DOCUMENTS WITH THE
9 PETITION.
- 10 (1) THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) NATURAL WOOD
11 WASTE RECYCLING FACILITY PERMIT APPLICATION AND ACCOMPANYING
12 DOCUMENTATION.
- 13 (2) EMERGENCY PREPAREDNESS MANUAL, AS REQUIRED BY MDE, FOR REVIEW BY THE
14 FIRE MARSHAL.
- 15 (3) AN APPROVED HOWARD SOIL CONSERVATION DISTRICT (HSCD) SUPPLEMENTARY
16 PROJECT EVALUATION WHICH ADDRESSES KEY NATURAL RESOURCE ISSUES SUCH AS
17 STREAM AND WETLAND PROTECTION, WINDBREAK, VIEWSCAPE, WATER QUALITY AND
18 RUNOFF CONTAINMENT, VEGETATIVE BUFFERS, OR ANY OTHER MITIGATION MEASURES
19 TO MINIMIZE IMPACTS TO ENVIRONMENTAL RESOURCES ON ADJACENT PROPERTIES.
- 20 (4) VERIFICATION THAT HOWARD COUNTY, DEPARTMENT OF PUBLIC WORKS-
21 ENVIRONMENTAL SERVICES HAS BEEN NOTIFIED THAT A NATURAL WOOD WASTE
22 RECYCLING FACILITY IS PROPOSED FOR PURPOSES OF THE SOLID WASTE MANAGEMENT
23 PLAN.
- 24 F. THE CONDITIONAL USE APPROVAL SHALL BE CONTINGENT UPON OBTAINING AN MDE
25 NATURAL WOOD WASTE RECYCLING FACILITY PERMIT AND SHALL NOT COMMENCE UNTIL A
26 COPY OF THE PERMIT IS SUBMITTED TO DPZ.
- 27 G. ANY MDE NATURAL WOOD WASTE RECYCLING FACILITY PERMIT RENEWALS OR
28 MODIFICATIONS TO THE ORIGINAL NATURAL WOOD WASTE RECYCLING FACILITY PERMIT
29 APPLICATION MUST BE SUBMITTED TO DPZ.

1 H. IN ADDITION TO THE BULK REGULATIONS OF THE APPLICABLE ZONING DISTRICT, THE
2 FOLLOWING STRUCTURE AND USE SETBACKS SHALL APPLY:

- 3 (1) FROM EXISTING DWELLINGS ON DIFFERENT LOTS 500 FEET
4 (2) FROM A RESIDENTIAL LOT 300 FEET
5 (3) FROM EXISTING STREAMS AND WETLANDS 200 FEET
6 (4) FROM PROPERTY LINES OF EXISTING SCHOOLS 500 FEET

7 THE HEARING AUTHORITY MAY REDUCE SETBACKS IF IT FINDS THAT NEIGHBORING
8 PROPERTIES WILL NOT BE ADVERSELY AFFECTED DUE TO VISUAL IMPACT, NOISE, DUST,
9 ODORS OR OTHER CAUSES AND THAT STRUCTURES AND USES OF THE FACILITY WILL BE
10 LOCATED AT LEAST 200 FEET FROM EXISTING DWELLINGS ON DIFFERENT LOTS, AT LEAST 50
11 FEET FROM RESIDENTIAL LOTS, AND AT LEAST 100 FEET FROM A STREAM OR WETLAND.
12 SETBACKS FROM PROPERTY LINES OF EXISTING SCHOOLS CANNOT BE REDUCED.

13
14 THE PETITIONER SHALL SUBMIT DOCUMENTATION THAT JUSTIFIES THE REQUESTED
15 SETBACK REDUCTION. STRUCTURES AND USE AREAS FOR WHICH THIS SETBACK REDUCTION
16 IS APPROVED SHALL BE BUFFERED FROM THE VIEW OF ADJOINING RESIDENCES BY EXISTING
17 TOPOGRAPHY, LANDSCAPING, OR BERMS, FENCES OR WALLS. BUFFERS OR OTHER
18 MITIGATION MEASURES ESTABLISHED THROUGH A HSCD SUPPLEMENTARY PROJECT
19 EVALUATION CAN BE USED TO JUSTIFY SETBACK REDUCTIONS.

20 I. SCREENING: ALL ACTIVITIES SHALL BE APPROPRIATELY SCREENED FROM THE PUBLIC RIGHT
21 OF WAY OR ADJACENT RESIDENTIAL DWELLINGS BY ANY COMBINATION OF STRUCTURAL,
22 TOPOGRAPHIC OR VEGETATIVE MEANS.

23 J. A SITE DEVELOPMENT PLAN, AS REQUIRED BY SECTION 16.155 OF THE HOWARD COUNTY
24 SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SHALL BE REQUIRED AS A
25 CONDITION OF APPROVAL.

26 K. ALL LIQUID, INCLUDING LEACHATE, CONTACT WATER OR STORMWATER RUNOFF,
27 GENERATED AT THE FACILITY SHALL BE DISPOSED OR DISCHARGED, IN ACCORDANCE WITH
28 APPLICABLE REGULATIONS.

29 L. THE HOURS OF OPERATION SHALL BE RESTRICTED TO BETWEEN 7:00 A.M. AND 6:00 P.M.,
30 HOWEVER NO GRINDING, CHIPPING OR SIMILAR ACTIVITIES SHALL OCCUR BEFORE 7:00 AM,

1 AND NO OPERATION SHALL BE PERMITTED ON SUNDAYS EXCEPT REPAIRS TO EQUIPMENT
2 AND IMPROVEMENTS. THE HOURS OR DAYS OF OPERATION MAY BE REDUCED BY THE
3 HEARING AUTHORITY.

4 M. ON-SITE RETAIL SALES OF FINISHED PRODUCTS SHALL BE PERMITTED IF SPECIFICALLY
5 APPROVED BY THE HEARING AUTHORITY.

6 N. ROADS SERVING THE SITE SHALL BE ADEQUATE FOR THE TRUCK TRAFFIC TO BE GENERATED
7 BY THE FACILITY. THE PETITION SHALL INCLUDE A STUDY OF AFFECTED ROAD AND BRIDGE
8 CONDITIONS TO ALLOW THE HEARING AUTHORITY TO MAKE THIS DETERMINATION.

9 O. IN ADDITION TO THE STANDARD CONDITIONAL USE PLAN REQUIREMENTS, THE PETITION
10 SHALL SHOW THE FOLLOWING:

11 (1) EXISTING NATURAL FEATURES INCLUDING STREAMS, PONDS, SPRINGS AND
12 WETLANDS AND REQUIRED ENVIRONMENTAL SETBACKS.

13 (2) EXISTING AND PROPOSED TOPOGRAPHY.

14 (3) SETBACK AND BUFFER AREA, INCLUDING TYPE OF SCREENING AND FENCING.

15 (4) PORTION OF LOT TO BE USED FOR ALL OPERATIONS, INCLUDING THE LOCATION AND
16 LAYOUT OF:

17 (A) UNLOADING, RECEIVING AND STORAGE AREAS;

18 (B) PROCESSING AREAS;

19 (C) WOODWASTE CURING AREAS;

20 (D) FINAL PRODUCT PREPARATION AREAS; AND

21 (E) FINISHED PRODUCT STORAGE AND LOADING AREAS.

22 (5) WATER SUPPLY AND SEWAGE DISPOSAL

23 (6) FACILITIES FOR STORAGE AND TREATMENT OF LEACHATE AND ANY OTHER LIQUIDS
24 GENERATED BY THE OPERATION.

25 (7) STORMWATER MANAGEMENT FACILITIES FOR QUANTITY AND QUALITY CONTROL.

26 P. A REHABILITATION PLAN SHALL BE SUBMITTED WITH THE CONDITIONAL USE PETITION FOR
27 APPROVAL BY THE HEARING AUTHORITY. THE PLAN SHALL PROVIDE FOR THE FOLLOWING
28 MINIMUM REHABILITATION PROGRAM TO COMMENCE IF THE NATURAL WOOD WASTE
29 RECYCLING FACILITY CEASES TO OPERATE FOR TWO YEARS OR MORE:

1
2
3
4
5
6
7
8

(1) ALL STRUCTURES AND MACHINERY SHALL BE COMPLETELY REMOVED AND UNDERLYING EXCAVATIONS FILLED TO GRADE EXCEPT STRUCTURES OR MACHINERY THAT ARE TO BE CONTINUED IN OPERATION FOR A USE PERMITTED UNDER THE ZONING CLASSIFICATION.

(2) ALL WOOD WASTE, MATERIALS, AND EXCESS FINISHED PRODUCTS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN CONFORMANCE WITH APPLICABLE LAWS AND REGULATIONS.

EXHIBIT B

MARYLAND DEPARTMENT OF THE ENVIRONMENT
Land Management Administration • Resource Management Program
1800 Washington Boulevard • Suite 610 • Baltimore, Maryland 21230-1419
410-537-3314 • 800-633-6101 x3314 • <http://www.mde.maryland.gov>

Individual Composting Facility Permit Application

Authority: Title 9, Environment Article, Annotated Code of Maryland, and Code of Maryland Regulations (COMAR) 26.04.11

Application for: New Permit Renewal Permit Permit Modification

Proposed composting facility tier: Tier 1 Tier 2 - Small Tier 2 - Large

Existing Permit No.: _____ Issued Date: ____/____/____ Expiration Date: ____/____/____

Applicant's Legal Name: _____

Applicant's Status: Individual Corporation Government Other: _____

Individual's Social Security No.: _____
Corporation or Government Federal Tax Identification No.: _____
Maryland State Department of Assessments and Taxation (SDAT) ID No.: _____
Please note that a business/entity must be registered to do business in Maryland before a permit can be issued. The business or entity's information provided in this application must match the information in the SDAT register.

Proof of workers' compensation coverage is required under § 1-202 of the Environment Article. Please provide one of the following:
(1) A copy of a Certificate of Compliance issued by the Maryland Workers' Compensation Commission; or
(2) Workers' Compensation Insurance Policy/Binder Number: _____

Applicant's Mailing Address: _____ City: _____ State: _____ Zip Code: _____

Applicant's Telephone No.: () _____ - _____ Facsimile No.: () _____ - _____

Emergency Contact Name & Title: _____ Telephone No.: () _____ - _____

Facility/Site Name: _____

Facility/Site Address: _____ City: _____ State: _____ Zip Code: _____

County: _____ Maryland Grid Coordinates: _____/_____

County Zoning Map No.: _____ Lot/Parcel No.: _____ Deed/Liber/Folio No.: _____

Latitude/Longitude (Deg/Min/Sec): _____ - _____ - _____ / _____ - _____ - _____ Site Acreage: _____

Property Owner's Legal Name: _____

Property Owner's Mailing Address: _____ City: _____

State: _____ Zip Code: _____ Property Owner's Telephone No.: () _____ - _____

Please submit this form with all required information listed on Page 2 to:

Maryland Department of the Environment
1800 Washington Boulevard, Suite 610
Baltimore, Maryland 21230-1719

By signing this form, I the applicant or duly authorized representative, do solemnly affirm under the penalties of perjury that the contents of this application are true to the best of my knowledge, information, and belief. I hereby authorize the representatives of the Department to have access to the site of the proposed activity for inspection and to records relating to this application at any reasonable time. I acknowledge that depending on the type of activity applied for, other permits or approvals may be required.

Signature Name (Print) Date

Title E-mail address Telephone Number

Privacy Act Notice: This Notice is provided pursuant to the Federal Privacy Act of 1974, 5 U.S.C. §552.a. Disclosure of your Social Security Number or Federal Employer Identification Number on this application is mandatory pursuant to the provisions of §1-203 (2003), Environment Article, Annotated Code of Maryland, which requires the Department to verify that an applicant for a permit has paid all undisputed taxes and unemployment insurance. The Department is also mandated by §10-119.3, Family Law Article, Annotated Code of Maryland, to require each applicant for a license to disclose the Social Security Number of the applicant and record the applicant's Social Security Number on the application. Pursuant to §10-119.3(a)(2), the definition of "license" means any license, certificate, registration, permit, or other authorization that: (i) is issued by a licensing authority; (ii) is subject to suspension, revocation, forfeiture, or termination by a licensing authority; and (iii) is necessary for an individual to practice or engage in a particular business, occupation, or profession. Social Security or Federal Employer Identification Numbers will not be used for any purposes other than those described in this Notice.

This Notice is provided pursuant to § 10-624 of the State Government Article of the Maryland Code. The personal information requested on this form is intended to be used in processing your application. Failure to provide the information requested may result in your application not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment ("MDE") is a public agency and subject to the Maryland Public Information Act (Md. Code Ann., State Gov't §§ 10-601, et seq.). This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or State law.

THE FOLLOWING INFORMATION MUST BE SUBMITTED WITH THE PERMIT APPLICATION:

1. Brief description of the composting facility, including a description of how the requirements of COMAR 26.04.11 will be met;
2. List of all other applicable permits required under local, State, or federal law and regulations, including permit numbers for those currently held permits;
3. A marketing plan and strategy for the compost to be produced at the composting facility;
4. A description of any variances for which the applicant is applying;
5. A map showing the specific location of the composting facility and types of land uses, including any residential areas, schools, or other institutions located within 1/2 mile of the boundaries of the composting facility;
6. Drawings of on-site buildings and other composting facility structures, including any pads and contact water or stormwater containment systems, showing the type of construction, layout, and dimensions;
7. For facilities with any outdoor operations, including feedstock receipt or curing, a topographic map of the site that identifies slopes greater than 25 percent, floodplains, wetlands, streams, and aquifer recharge areas;
8. Drawings showing feedstock receipt and storage, compost storage, equipment storage, curing, and active composting areas;
9. A site plan designating the property boundaries, existing and proposed composting facility structures, and roads;
10. A descriptive statement of processes and technology to be used;
11. The depth to the seasonal high water table, demonstrating compliance with COMAR 26.04.11 .08D;
12. A copy of the Composting Facility Operations Plan required under COMAR 26.04.11.09;
13. A description of the following:
 - a. Major items of equipment including manufacturer, type, model, capacity, and number of units;
 - b. Types and anticipated quantities of feedstocks to be accepted and processed daily;
 - c. Types of feedstocks that are not accepted;
 - d. Means by which the quantities of materials entering the composting facility, processed at the composting facility, and leaving the composting facility are determined;
 - e. Geographic areas expected to be served by the composting facility;
 - f. Measures that shall be taken to prevent or control ground or surface water pollution, fires, odors, noise, dust, litter, vectors, and other nuisances;
 - g. Methods of controlling contact water and stormwater from the composting facility;
 - h. Soil types and depths at the composting facility site;
 - i. Employee safety and sanitary facilities including the location of on-site sewage disposal and water supply systems;
 - j. Number and positions of employees; and
 - k. Hours of operation;
14. If required, an erosion and sediment control plan that meets the requirements of COMAR 26.17.01 and has been approved by the local soil conservation district or appropriate approving authority;
15. A grading permit as required by the local jurisdiction;
16. A description of site security and access control; and
17. An approved and bonded stormwater management plan, if required by the local jurisdiction.

For questions regarding this application form, please contact the Department at 410-537-3314

EXHIBIT C
MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land Management Administration • Solid Waste Program
1800 Washington Boulevard • Suite 605 • Baltimore Maryland 21230-1719
410-537-3315 • 800-633-6101 x3315 • www.mde.maryland.gov

Natural Wood Waste Recycling Facility Permit Application

Authority: Title 9, Environment Article, Annotated Code of Maryland, and Code of Maryland Regulations (COMAR) 26.04.09

Application for: New Permit Renewal Permit

Existing Permit No.: _____ - NWW - _____ Issued Date: ____/____/____ Expiration Date: ____/____/____

Applicant's Legal Name: _____

Applicant's Status: Individual Corporation Other: _____

Corporation or Government Federal Tax Identification No.: _____

Maryland State Department of Assessments and Taxation (SDAT) ID No.: _____

Please note that a business/entity must be registered to do business in Maryland before a permit can be issued. The business or entity's information provided in this application must match the information in the SDAT register.

Proof of workers' compensation coverage is required under § 1-202 of the Environment Article. Please provide one of the Following:

- (1) A copy of a Certificate of Compliance issued by the Maryland Workers' Compensation Commission; or
- (2) Workers' Compensation Insurance Policy/Binder Number: _____

Applicant's Mailing Address: _____ City: _____ State: _____ Zip Code: _____

Applicant's Telephone No.: () _____ - _____ Facsimile No.: () _____ - _____

Emergency Contact Name & Title: _____ Telephone No.: () _____ - _____

Facility/Site Name: _____

Facility/Site Address: _____ City: _____ State: _____ Zip Code: _____

County: _____ Maryland Grid Coordinates: _____ / _____

County Zoning Map No.: _____ Lot/Parcel No.: _____ Deed/Liber/Folio No.: _____

State Legislative District: _____ Local Council/Election District: _____

Bay Tributary Watershed Code: _____ Latitude/Longitude (Deg/Min/Sec): _____ - _____ - _____ / _____ - _____ - _____

Site Acreage: _____ Facility Acreage (Estimated): _____

By signing this form, I the applicant or duly authorized representative, do solemnly affirm under the penalties of perjury that the contents of this application are true to the best of my knowledge, information, and belief. I hereby authorize the representatives of the Department to have access to the site of the proposed facility for inspection and to records relating to this application at any reasonable time. I acknowledge that depending on the type of facility applied for, other permits or approvals may be required.

Signature of Applicant

Date

Applicant's Name (Print)

Title

This Notice is provided pursuant to §10-624 of the State Government Article of the Maryland Code. The personal information requested on this form is intended to be used in processing your application. Failure to provide the information requested may result in your application not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment ("MDE") is a public agency and subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by Federal or State law.

Privacy Act Notice: This Notice is provided pursuant to the Federal Privacy Act of 1974, 5 U.S.C. §552.a. Disclosure of your Social Security Number or Federal Employer Identification Number on this application is mandatory pursuant to the provisions of §1-203 (2003), Environment Article, Annotated Code of Maryland, which requires the MDE to verify that an applicant for a permit has paid all undisputed taxes and unemployment insurance. Social Security or Federal Employer Identification Numbers will not be used for any purposes other than those described in this Notice.

For questions regarding this application form, please contact the Department at (410) 537-3315

THE FOLLOWING INFORMATION MUST BE SUBMITTED WITH THE PERMIT APPLICATION:

1. A detailed description of the facility operation that includes a description of each component of the facility operations and how each of these operate as part of the regular function of the facility (i.e. weighing, unloading, processing, storage, marketing, residue disposal, hauling, record keeping, employees, administration, etc.)
2. A marketing plan and strategy for the product(s) produced at the facility. The plan must include the type and grade of each product to be produced and specifically show who will use or purchase these materials.
3. Eleven (11) copies of plans and engineering reports describing the proposed project. The information contained in the plans and report must include:
 - A. A map showing the specific location and land use within ½ mile of the site boundaries of the proposed facility.
 - B. A site plan designating the property boundaries, existing and proposed facility structures, and roads.
 - C. A topographic map of the site that identifies slopes greater than 25 percent, floodplains, wetlands, and aquifer recharge areas.
 - D. Drawings of on-site buildings and other facility structures indicating the type of construction, layout and dimensions.
 - E. Drawings indicating unloading, raw material storage, product storage, equipment storage and processing areas. Include the dimensions of the pile(s) or windrows used for raw material storage; for curing wood chips; and for product storage.
 - F. Days and hours of operation.
 - G. The geographic areas to be served by the proposed facility.
 - H. Types and estimated quantities of natural wood waste to be accepted and processed daily.
 - I. Types of natural wood waste that are not accepted.
 - J. Methods by which quantities of materials entering the site, being processed, and leaving the facility are determined.
 - K. The process and technology to be used for processing wood wastes. Include the number of times wood is ground, aerated, oxygen and temperature readings, and how often the product is removed from the site.
 - L. Number and type of employees.
 - M. Employee safety and sanitary facilities including the location of on site sewage disposal and water supply systems.
 - N. Major items of equipment including manufacturer, type, model, capacity, and number of units.
 - O. Soil types and depths on the site.
 - P. Measures that shall be taken to prevent or control ground or surface water pollution, fires, explosions, odors, noise, dust, litter, vectors, and other nuisances.
 - Q. Methods of controlling runoff from the unloading, storage, and processing areas.
 - R. Site security and access controls.
 - S. An Operations and Maintenance (O&M) Manual which identifies the operation in detail as specified in COMAR 26.04.09.05B.(2)(h)(i-vi).
 - T. An Emergency Preparedness Manual as specified in COMAR 26.04.09.07F.
4. The applicant must also submit:
 - A. An erosion and sediment control plan that meets the requirements of COMAR 26.17.01 and that has been approved by the local soil conservation district or appropriate approving authority.
 - B. A grading permit as required by the local jurisdiction.
 - C. An approved and bonded storm water management plan as required by the local jurisdiction.
 - D. A description of and copies of all other applicable permits or approvals as required under local, State or federal statutes.

EXHIBIT D

Introduced	<u>10/2/17</u>
Public Hearing	<u>10/14/17</u>
Council Action	<u>11/6/17</u>
Executive Action	<u>11/8/17</u>
Effective Date	<u>1/8/18</u>

County Council of Howard County, Maryland

2017 Legislative Session

Legislative Day No. 13

Bill No. 78-2017

Introduced by: Greg Fox, Mary Kay Sigaty, and the Chairperson at the request of the County Executive

AN ACT amending the Howard County Fire Prevention Code in order to require that piles of certain material regulated by the Fire Prevention Code be turned or reclaimed in accordance with State law; specifying the height requirement for certain materials; adding that certain materials may constitute a public nuisance; clarifying that the right to farm does not apply when an agricultural operation does not comply with the Fire Prevention Code; and generally relating to fire safety requirements and fire prevention in Howard County.

Introduced and read first time October 2, 2017. Ordered posted and hearing scheduled.
By order Jessica Feldmark
Jessica Feldmark, Administrator

Having been posted and notice of time & place of hearing & title of Bill having been published according to Charter, the Bill was read for a second time at a public hearing on October 16 2017.
By order Jessica Feldmark
Jessica Feldmark, Administrator

This Bill was read the third time on November 2017 and Passed , Passed with amendments , Failed .
By order Jessica Feldmark
Jessica Feldmark, Administrator

Sealed with the County Seal and presented to the County Executive for approval this 7th day of November, 2017 at 3 a.m./p.m.
By order Jessica Feldmark
Jessica Feldmark, Administrator

Approved / Vetoed by the County Executive Nov 8, 2017
Allan H. Kittleman
Allan H. Kittleman, County Executive

NOTE: [[text in brackets]] indicates deletions from existing law; TEXT IN SMALL CAPITALS indicates additions to existing law; Strike-out indicates material deleted by amendment; Underlining indicates material added by amendment.

1 Section 1. Be It Enacted by the County Council of Howard County, Maryland, that the Howard
2 County Code is amended as follows:

3
4 By amending:

5 Title 17 "Public Protection Services"

6 Subsection (c) (258) and (c) (259) of Section 17.104, Howard County Fire Prevention
7 Code.

8
9 Title 17 "Public Protection Services"

10 Section 17.106, Rubbish, debris, noxious weeds declared to be a nuisance.

11
12 Title 12 "Health and Social Services"

13 Section 12.111, Nuisance Suits Against Agricultural Operations.

14
15 Title 17, Public Protection Services.

16 Subtitle 1, Fire and Rescue Services.

17
18 Section 17.104, Howard County Fire Prevention Code.

19 (c) Local Amendments to the Howard County Fire Prevention Code: The following
20 amendments modify certain provisions of the adopted code:

21 (258). Subsection 31.3.6.2.2

22 Add new paragraph 9 after paragraph 8 as follows:

23 A pile containing leaves and other extraneous or hogged material, [such as a
24 whole tree chip pile] INCLUDING NATURAL WOOD WASTE, shall be turned or
25 reclaimed IN ACCORDANCE WITH STATE LAW AND AT A MINIMUM every three
26 months.

27 (259) Subsection 31.3.6.3.1

28 Delete this subsection and substitute the following:

29 Piles may not exceed 18 feet in height FOR UNGROUND MATERIALS OR 10 FEET IN
30 HEIGHT FOR GROUND MATERIALS, 50 feet in width, and 350 feet in length.
31 [Two piles] WHEN MORE THAN ONE PILE EXISTS, PILES shall be divided by a
32 five lane having at least 25 feet of clear space at the base of the pile.

1 (260) Subsection 31.3.6.3.2

2 Delete this subsection.

3 (261) Subsection 31.3.6.3.2.1

4 Delete this subsection.

5 (262) Subsection 31.3.6.3.2.2

6 Delete this subsection.

7 (263) Subsection 31.3.6.3.2.3

8 Delete this subsection.

9 (264) Subsection 31.3.6.3.5.1

10 Add new subsection 31.3.6.3.5.1 after subsection 31.3.6.3.5 as follows:

11 If the operation is located outside of a municipal water supply the following will
12 apply:

13 (i) The AHJ will require a reliable certified water supply system with the
14 capability to supply 1000 gallons per every 10,000 cubic feet of pile. The
15 supply system must be capable of producing a minimum of 250 gpm
16 (preferred is 500gpm) for at least 2 hours.

17 (ii) The Mulch/Wood Processing operation shall have a Fire Station located
18 within 5 travel miles of the location.

19 (iii) If the water supply is static it is to be certified by an engineer and capable
20 to supply the amount required by paragraph (i) of this subsection. If the
21 water supply is below the minimum amount, then the supply must be
22 capable of at least 30,000 gallons at all times. The maximum size of water
23 supply needed may be based on the proposed operation and approved by
24 the AHJ.

25 (iv) Based on the amount of material on site, other provisions such as
26 sprinklers, pre-piped systems, or constant monitoring of the pile may be
27 required.
28

29 ~~Section 17.106. Rubbish, debris, noxious weeds~~ FLAMMABLE MATERIALS MAY BE declared to
30 be a nuisance.

1 (a) ~~What Constitutes a Public Nuisance.~~ Except for weeds, brush and grass on land actively
2 devoted to agricultural or conservation uses, the following are declared a public nuisance:

3 (A) WHAT CONSTITUTES A PUBLIC NUISANCE.

4 (1) THIS SUBSECTION DOES NOT APPLY TO WEEDS, BRUSH AND GRASS ON LAND ACTIVELY DEVOTED
5 TO:

6 (I) AGRICULTURAL USES; OR

7 (II) CONSERVATION USES.

8 (2) A FIRE OFFICIAL MAY DECLARE THE FOLLOWING MATERIALS A PUBLIC NUISANCE, UPON FINDING
9 THAT THEY CREATE OR TEND TO CREATE A FIRE HAZARD ENDANGERING LIFE OR PROPERTY, OR THAT
10 THEY MAY INTERFERE WITH EMERGENCY OPERATIONS OR ENDANGER FIRE SERVICE PERSONNEL:

11 (I) RUBBISH OR TRASH;

12 (II) DRY BRUSH, NOXIOUS WEEDS OR GRASS EXCEEDING 12 INCHES IN HEIGHT;

13 (III) WOOD CHIPS OR HOGGED MATERIAL, INCLUDING NATURAL WOOD WASTE; OR

14 (IV) DEBRIS OR OTHER MATERIAL OF A FLAMMABLE NATURE.

15
16 ~~Rubbish, trash, dry brush, noxious weeds or grass exceeding 12 inches in height, WOOD CHIPS~~
17 ~~OR HOGGED MATERIAL, INCLUDING NATURAL WOOD WASTE, or debris or other material of a~~
18 ~~flammable nature which creates or tends to create a fire hazard endangering life or property or~~
19 ~~which may interfere with emergency operations or endanger fire service personnel.~~

20 (b) *Unlawful to Permit Public Nuisance.* It shall be unlawful for anyone to permit a public
21 nuisance listed in subsection (a) to remain on any lot or parcel of ground.

22 (c) *Removal; Notice.* The Director of Fire and Rescue Services shall send a notice by registered
23 or certified mail to the owner of any lot or parcel of ground where the Director determines that a
24 public nuisance exists. The notice shall:

25 (1) Require the property owner to abate the nuisance within ten days;

26 (2) State that if the nuisance is not abated within ten days, the County may abate the
27 nuisance at the expense of the property owner.

28 (d) *Extension.* If the property owner is unable to comply with a notice within ten days after its
29 receipt, the property owner shall submit a request for an extension of time. Upon receipt of the
30 request, the Fire Official may grant an extension of time, not to exceed 90 days. The request for
31 an extension shall:

32 (1) Be submitted to the Fire Official; and

1 (2) State the reasons for the request.

2 (e) *Penalties:*

3 (1) A person who fails to comply with a notice issued by the Fire Official is guilty of
4 a misdemeanor and, upon conviction, is subject to a fine, not exceeding
5 \$1,000.00, or imprisonment, not exceeding 30 days, or both. Alternatively, or in
6 addition to and concurrent with all other remedies at law or at equity, the
7 Department of Fire and Rescue Services may enforce the provisions of this
8 section with civil penalties pursuant to title 24, "Civil Penalties" of the Howard
9 County Code. A violation of this section is a Class C offense.

10 (2) The Fire Official may bring action in court to enforce compliance with an order to
11 comply with this subtitle or to correct a nuisance.

12 (3) If a person refuses or fails to comply with the provisions of this subtitle or to
13 correct a nuisance within the time specified in the notice of violation, the Fire
14 Official may petition the court for an order permitting entry upon the property to
15 abate the violation or correct the nuisance at the owner's expense.

16
17 **Title 12. Health and Social Services.**

18 **Subtitle 1. Health Code.**

19
20 **Section 12.111. Nuisance suits against agricultural operations.**

21 (a) *Short Title.* This section shall be known and may be cited as the Howard County Right-To-
22 Farm Act, Bill No. 22, 1989.

23 (b) *Public Policy.* The practice of agriculture has been a mainstay of the economy of Howard
24 County since the land was settled. Agriculture is a valued and respected way of life, and the
25 preferred land use in the Rural Conservation (RC) Zoning District, a valued land use in the Rural
26 Residential (RR) Zoning District and on property that has an agricultural use assessment as
27 determined by the State Department of Assessments and Taxation. The Howard County Council
28 hereby finds and declares that the practice of farming in Howard County should be protected and
29 encouraged.

30 In addition, as Howard County continues to grow, residents are increasingly interacting more
31 with the agricultural community making it extremely important for clear communication and

1 mutual respect for one another. Agricultural operations, in many cases, involve noise, dust, odor,
2 slow moving vehicles, and early morning/late evening activity. Howard County farmers are
3 committed to providing a safe quality product for consumers, preserving the environment for the
4 next generation, and being good neighbors. At the same time these activities may have some
5 effect on adjoining properties. It is important that both the agricultural community and
6 neighboring residents respect one another so that agriculture can continue to serve as the
7 foundation of Howard County.

8 (c) *Definitions.* In this section agricultural operation includes agriculture, apiaries, horticulture,
9 orchards, agricultural nurseries, viticulture, aquaculture, silviculture, animal and poultry
10 husbandry, and farming as defined in the Howard County Zoning Regulations. An agricultural
11 operation may occur without limitation as to hours of operation. The harvesting and processing
12 of agricultural crops and other uses or structures directly related to or accessory to the premises
13 for farming are considered part of an agricultural operation. Agricultural practices included as
14 part of an agricultural operation include, but are not limited to:

- 15 (1) The transportation of agricultural products;
- 16 (2) The transportation, storage, handling, and application of fertilizer, soil
17 amendments, pesticides, and manure; and
- 18 (3) The operation of agricultural machinery and equipment.

19 (d) *Protection for Agricultural Operations.* In RC and RR zoning districts, and on property that
20 has an agricultural use assessment as determined by the State Department of Assessments and
21 Taxation, an agricultural operation may not legally be considered a public or private nuisance;
22 and a private action may not be sustained on the grounds that the agricultural operation interferes
23 or has interfered with the use or enjoyment of other property, whether public or private, if:

- 24 (1) The agricultural operation existed before a change occurred in the adjoining land
25 use or occupancy of land and, before such change in land use or occupancy of
26 land, the agricultural operation did not constitute a nuisance; or
- 27 (2) The agricultural operation, including any change in the operation, has been
28 ongoing for one year or more and the operation or change did not constitute a
29 nuisance from the date the operation began or the date the change in the operation
30 began; and

1 (3) The agricultural operation is conducted in accordance with generally accepted
2 agricultural management practices.

3 (e) *Exceptions.* This section does not apply to:

4 (1) An agricultural operation that does not conform to Federal, State or local health,
5 HOWARD COUNTY FIRE PREVENTION CODE, or zoning requirements;

6 (2) A Federal, State or local agency when enforcing air, water quality, or other
7 environmental standards under Federal, State or local law; or

8 (3) An agricultural operation that is conducted in a negligent manner.

9 (f) *Limitations of Actions.* Notwithstanding any provision of this section, no action alleging that
10 an agricultural operation conducted in accordance with generally accepted agricultural practices
11 has interfered with the reasonable use or enjoyment of real property or personal well-being shall
12 be maintained if the plaintiff has not sought mediation through the Maryland Agricultural
13 Conflict Resolution Service within the Maryland Department of Agriculture, as provided for
14 in Title 5, Subtitle 4 of the Courts and Judicial Proceedings article of the Annotated Code of
15 Maryland.

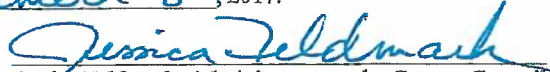
16 (g) *Legal costs.* In any civil action, if a court finds that the agricultural operation alleged to be a
17 nuisance is found not to be a nuisance and that the suit was brought in bad faith or without
18 substantial justification, the court should require the plaintiff to pay the costs of the proceedings
19 and the reasonable expenses associated with the litigation, including reasonable attorney's fees,
20 incurred by the owner, operator or both, the owner and operator, of the agricultural operation in
21 defending against the legal action.

22

23 *Section 2. And Be It Further Enacted by the County Council of Howard County, Maryland that*
24 *this Act shall become effective 61 days after its enactment.*

BY THE COUNCIL

This Bill, having been approved by the Executive and returned to the Council, stands enacted on November 8, 2017.


Jessica Feldmark, Administrator to the County Council

BY THE COUNCIL

This Bill, having been passed by the yeas and nays of two-thirds of the members of the Council notwithstanding the objections of the Executive, stands enacted on _____, 2017.

Jessica Feldmark, Administrator to the County Council

BY THE COUNCIL

This Bill, having received neither the approval nor the disapproval of the Executive within ten days of its presentation, stands enacted on _____, 2017.

Jessica Feldmark, Administrator to the County Council

BY THE COUNCIL

This Bill, not having been considered on final reading within the time required by Charter, stands failed for want of consideration on _____, 2017.

Jessica Feldmark, Administrator to the County Council

BY THE COUNCIL

This Bill, having been disapproved by the Executive and having failed on passage upon consideration by the Council stands failed on _____, 2017.

Jessica Feldmark, Administrator to the County Council

BY THE COUNCIL

This Bill, the withdrawal of which received a vote of two-thirds (2/3) of the members of the Council, is withdrawn from further consideration on _____, 2017.

Jessica Feldmark, Administrator to the County Council



HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

3430 Courthouse Drive

Ellicott City, Maryland 21043

410-313-2350

Voice/Relay

Valdis Lazdins, Director

FAX 410-313-3467

Subject: Planning Board Recommendation
ZRA-183 (May Kay Sigaty & Greg Fox Councilmembers)

To: Recipients of Planning Board Recommendations

From: Toni Sieglein *Toni*
Division of Public Service and Zoning Administration

Date: Marcy 16, 2018

Attached is the Planning Board Recommendation for ZRA-183. Should you have any questions, please contact this office at 2350.

cc: Jessica Feldmark, County Council
Diane Wilson, Chief of Staff
Gary Kuc, County Solicitor
Paul Johnson, Deputy County Solicitor
Howard County Council
Robin Regner, Administrative Assistant to Zoning Board
Jennifer Sager, Legislative Coordinator
Theodore Wimberly – Legislative Assistant

:tms
Attachment

1 BEFORE THE
2 MARY KAY SIGATY, * PLANNING BOARD OF
3 GREG FOX, PETITIONERS * HOWARD COUNTY, MARYLAND
4 ZRA-183 *

5 * * * * *

6 MOTION: *To recommend approval of the petition in accordance with the Department*
7 *of Planning and Zoning recommendation and to add criteria to verify*
8 *ongoing compliance with Special Farm Permits*

9 ACTION: *Recommended approval; Vote 5 to 0.*

10 * * * * *

11 RECOMMENDATION

12 On January 11, 2018, and March 1, 2018, the Planning Board of Howard County, Maryland,
13 considered the petition of Councilmembers Mary Kay Sigaty and Greg Fox to amend Sections 103.0, 104.0,
14 105.0, 106.1, 122.0, 123.0, 124.0, 128.0, 131.0 of the Howard County Zoning Regulations (HCZR). The
15 proposed amendments address wood waste processing and composting activities in the RC, RR, M-1, M-2
16 zoning districts and Solid Waste Overlay district.

17 The Planning Board considered the petition, Department of Planning and Zoning (DPZ) Technical
18 Staff Report, public testimony, and DPZ's recommendation to approve the petition. Councilmember Sigaty
19 introduced the item and explained that when Council approved Council Bill 60-2017 (CB-60) in November,
20 2017 they miscounted days resulting in an invalid bill and triggering the need to go through the process again.
21 The proposed ZRA 183 is the same as ZRA 180 with ten amendments that were adopted by Council in the
22 final CB-60. The Planning Board's review should focus on the ten amendments, which represent the changes
23 to ZRA 180.

24 Testimony

25 Councilmember Sigaty testified that ZRA 183 balances needs of the farming community to operate
26 viable farms and manages risks, while protecting neighbors. ZRA 183 promotes environmental sustainability
27 and sound waste management; supports agriculture and the County's investment in the Agricultural
28 Preservation Program; protects residential communities in or adjacent to the RC, RR, M-1 and M-2 zones;
29 and limits the size of facilities and sale of product. Councilmember Sigaty informed the Planning Board that
30 the Council heard expert testimony during the work sessions on CB 60. It included Maryland Department of
31 the Environment composting staff, a University of Maryland specialist who certifies composting operations
32 and teaches composting programs; a US Department of Agricultural contractor who specializes in the use of
33 composting to meet Clean Air and Water Act requirements; and a Meteorologist/Soil Scientist with expertise

1 in air pollution. Both Councilmembers Sigaty and Fox discussed Council Bill 78-2017, which requires the
2 County to apply state regulatory standards for wood waste pile heights and distances between piles even if a
3 state permit is not required. It also provides additional enforcement opportunities through the Fire Department
4 to address potential health and safety issues.

5 Councilmember Fox mentioned that the County's landfill is surrounded by residential. Jeffery
6 Dannis, Bureau of Environmental Services, Alpha Ridge Manager, testified that the County has not received
7 any complaints about the Alpha Ridge Landfill operation.

8
9 The Board heard public testimony on ZRA 183. The agricultural community, including the Farm
10 Bureau, testified in general support of ZRA 183. However, they expressed concerns with the proposed
11 restrictions on sales and discussed state initiatives to encourage counties to find other outlets for waste
12 disposal. Residential homeowners testified in support of some aspects of ZRA 183 and also expressed
13 concerns about a number of issues including: the need for additional limits on the sale of excess product;
14 compliance with agriculture preservation easements, potential health and safety impacts, ground water
15 contamination, safety concerns with tractor trailer traffic, and ability of the County to enforce regulations. Mr.
16 McAliley motioned to close the public hearing and continue the work session to a future meeting. Mr.
17 Coleman seconded the motion, which passed by a vote of 4-0.

18 19 Board Discussion and Recommendations

20 On March 1, 2018, the Planning Board convened in a work session to discuss ZRA 183. Mr. Engelke
21 stated for the record that while he did not attend the January 11, 2018, Public Hearing he has reviewed the
22 video and materials and is prepared to participate in the work session. He recommended that the Board focus
23 their discussion on the items that changed from the last hearing on ZRA 180. Board members commented that
24 the amendment was well thought out and commended the sponsors for their effort. Misters Engleke and
25 Coleman remarked that the approach is balanced and reasonable. Ms. Adler expressed support for protecting
26 and encouraging farming in Howard County and also raised a concern that compliance monitoring for Special
27 Farm Composting Permits should extend beyond two years. The board agreed monitoring beyond the first two
28 years should occur and they recommended the County determine a consistent approach and timeframe to
29 confirm ongoing compliance.

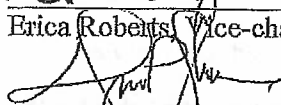
30 Mr. Coleman motioned to recommend approval of ZRA 183 and include a measure to ensure there is
31 consistent and continuing compliance of Special Farm Composting Permits. Ms. Adler and Ms. Roberts
32 seconded the motion. The motion passed by a vote of 5 to 0.

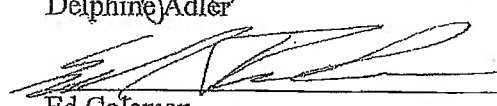
1 For the foregoing reasons, the Planning Board of Howard County, Maryland, on this 15th day of
2 2018, recommends that ZRA-183, as described above, be APPROVED.

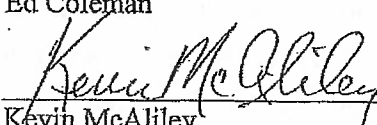
3
4 HOWARD COUNTY PLANNING BOARD

5
6 
Phillips/Engelke, Chair

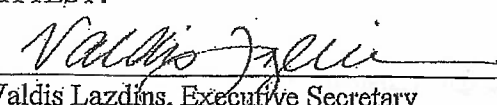
7
8 Erica Roberts, Vice-chair

9
10 
Delphine Adler

11
12 
Ed Coleman

13
14 
Kevin McAiley

15
16 ATTEST:

17 
18 Valdis Lazdiņš, Executive Secretary



December 28, 2017

TECHNICAL STAFF REPORT

Planning Board Meeting of January 11, 2018

Case No: ZRA-183

Petitioners: Mary Kay Sigaty, Councilperson
Greg Fox, Councilperson

Request: Zoning Regulation Amendment to amend the following sections of the Howard County Zoning Regulations (HCZR) concerning Natural Wood Waste Recycling Facilities ("NWWRF") and Composting Facilities ("CF"):

- Section 103.0 to add new definitions for Composting, Composting Facility, Bulk Firewood Processing, Feedstock, Horticultural Nursery, Natural Wood Waste, Natural Wood Waste Recycling, Natural Wood Waste Recycling Facility, and Sawmill.;
- Section 103.0 to delete definitions for Mulch Manufacture and Yard Waste Composting;
- Section 104.0, Section 105.0 and Section 106.1 to add Composting Facilities as permitted accessory uses;
- Section 106.1 to add Natural Wood Waste Recycling Facilities if Accessory to a Horticultural Nursery as a Conditional Use on ALPP Purchased and ALPP Dedicated Easements;
- Section 122.0 to add Natural Wood Waste Recycling Facilities as permitted uses and delete Mulch Manufacture;
- Section 123.0 to add Tier 1, Tier 2 – Small, and Tier 2-Large Composting Facilities as permitted uses on parcels that do not abut residentially zoned property;
- Section 124.0 to add Tier 3 Composting Facilities as a permitted use;
- Section 128.0.I to add a new category, Tier 1 or Tier 2 – Small Composting Facilities, as a Permitted Special Farm Use;
- Section 131.0.N. to update the Conditional Uses and Permissible Zoning Districts Chart;
- Section 131.0.N.46 to delete Mulch Manufacture from the category title, Sawmills, Bulk Firewood Processing, Mulch Manufacture, or Soil Processing;
- Section 131.0.N.60 to delete the category, Yard Waste Composting Facility;

- Section 131.0.O to add two new Conditional Use categories, Composting Facilities and Natural Wood Waste Recycling Facility.

A description of the proposed text amendments for each Section is provided in Section II of this Technical Staff Report, Description of Proposal.

Department of Planning and Zoning Recommendation:

APPROVAL.

I. BACKGROUND AND HISTORY OF EXISTING ZONING REGULATIONS

2004 & 2006 Zoning Regulations:

The 2004 and 2006 Howard County Zoning Regulations (HCZR) contained the following definitions related to the manufacturing of mulch or the composting of organic materials:

Mulch Manufacture: The manufacture of horticultural mulch from wood, wood products or similar materials. This term does not include the production of mulch as a by-product of on-site farming.

Yard Waste Composting Facility: A facility at which yard waste and natural wood waste is received and processed to produce compost for off-site use.

As a Matter of Right:

- Mulch Manufacture was permitted in M-1 and M-2.

Conditional Uses:

- Sawmills and Mulch Manufacture¹ were permitted in RC and RR and were permitted on Agricultural Preservation parcels.
- Yard Waste Composting Facilities were permitted in RC, RR and M-1 but not on Agricultural Land Preservation Program (ALPP) properties.

2013 Comprehensive Zoning Plan (2013 CZP) adopted October 6, 2013:

The 2013 CZP eliminated the Yard Waste Composting Facility use and replaced it with a broader use category to allow recycling of additional materials including wood waste, food, and manure.

Composting Facility: A facility where organic material, specifically limited to vegetation, food waste, and manure, that is obtained principally from off-site locations is processed to generate a product through the microbiological degradation of this organic material under aerobic conditions.

Mulch Manufacture: Remained the same as 2004 & 2006.

Yard Waste Composting Facility: Deleted.

¹ The term "Sawmills" has never been defined in the HCZR. Sawmills have variously been listed as a stand-alone permitted use or Conditional Use or combined with Mulch Manufacturing and/or Bulk Firewood Processing or Soil Processing. Definitions for Bulk Firewood Processing and Sawmills were proposed by DPZ in ZRA 149 but were not adopted.

As a Matter of Right:

- Sawmills were permitted in M-1 and M-2.

Conditional Uses:

- Composting Facilities were permitted only in RC. Replaced the former category, Yard Waste Composting Facility.
- Sawmills, Bulk Firewood Processing, Mulch Manufacture or Soil Processing were permitted in RC and RR. The title of this category was expanded and retitled from the former category, Sawmills and Mulch Manufacture.
- Composting Facilities were allowed as potential Conditional Uses on ALPP Purchased Easements, ALPP Dedicated Easements and on Other Dedicated Easements, without any use area restrictions.
- Mulch manufacture was allowed as a Conditional Use on ALPP Purchased and ALPP Dedicated Easements with a cumulative use cap not to exceed 2% of the easement and on Other Dedicated Easements with a cumulative use cap not to exceed 2% of the easement, up to a maximum of one acre.

Current Zoning Regulations (ZRA 149/CB 20-2014 August 2014):

In response to concerns related to potential large scale mulch and composting facilities in western Howard County, the County Council sponsored Zoning Regulation Amendment 149 (Council Bill 20-2014, effective August 4, 2014), which amended the 2013 Zoning Regulations by reinstating certain Regulations that were in effect prior to 2013. The amendments included:

Definitions:

- Mulch Manufacture: Remained the same as 2004 & 2006.
- Composting Facility: Deleted.
- Yard Waste Composting Facility: Reinstated.

As a Matter of Right:

- Mulch Manufacture permitted in M-1 and M-2.

Conditional Uses:

- Composting Facility category deleted.
- Sawmills, Bulk Firewood Processing, Mulch Manufacture, or Soil Processing were permitted in RC and RR. However, However only Sawmills and Bulk Firewood Processing was permitted on ALPP Purchased Easements and ALPP Dedicated Easements.
- Yard Waste Composting Facility former category reinstated; permitted in RC, RR and M-1. Not permitted on ALPP Purchased Easements, ALPP Dedicated Easements and on Other Dedicated Easements.

Task Force to study Mulching, Composting and Wood Processing:

On July 7, 2014, the County Council adopted Council Resolution 74 (CR 74-2014) creating a Task Force to “study mulching, composting and wood processing policies and regulations with respect to Howard County land use, planning processes and Zoning Regulations” (the Wood Processing Task Force). At a minimum among their tasks was to examine the following:

- The role, scope, and impacts of mulching, composting, and wood processing activities to the overall sustainability of the County;
- Best management practices for mulching, composting, and wood processing uses;
- Optimal sizes and locations for mulching, composting, and wood processing uses; and
- Statewide (Maryland Department of the Environment and Agriculture) regulations and potential changes in the area of mulching, composting, and wood processing activities.

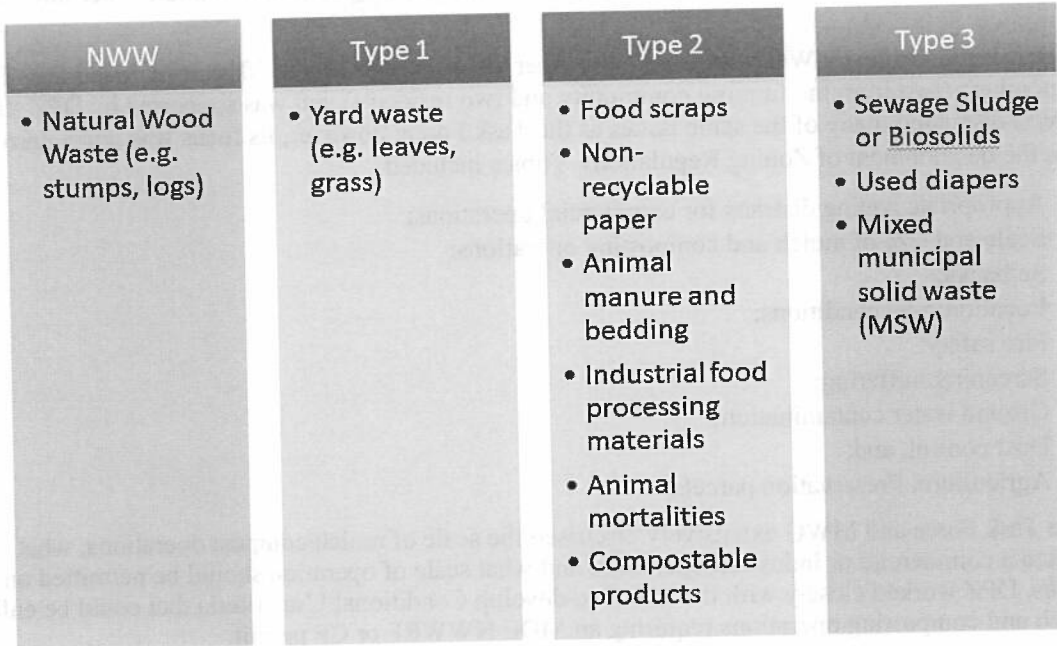
The Task Force met from July 2014 through February 2015 and issued a Report to the County Council (Task Force Report) on March 9, 2015 (updated April 13, 2015). The Report included a table of recommendations pertaining to the Zoning Regulations (Zoning Matrix). It showed 18 different categories of Natural Wood Waste Recycling and Composting operations with specific use restrictions applied to each category. Categories 1-5 relate to NWWRF and categories 6-18 relate to composting operations. A separate report entitled “Report of Concerned Citizens of the Mulch/Composting Task Force” dated March 15, 2015 (Minority Report) was issued by five dissenting members of the Task Force. It summarized citizen group concerns.

The Zoning Matrix included very specific zoning regulations, as well as non-land use requirements from the majority and minority perspective. The Task Force Report recognized the importance of farming to the County and attempted to craft regulations that avoided undue burdens on farmers as they conducted agricultural activities, while at the same time addressing concerns of residential neighbors. The Task Force Report noted “some members of the Task Force see composting as a farming activity only when the bulk of the end product is used on the farm and do not view wood waste recycling as a farming activity.” The Wood Processing Task Force deliberated a number of concerns and issues with respect to NWWRF and composting operations in the rural west. Key issues included:

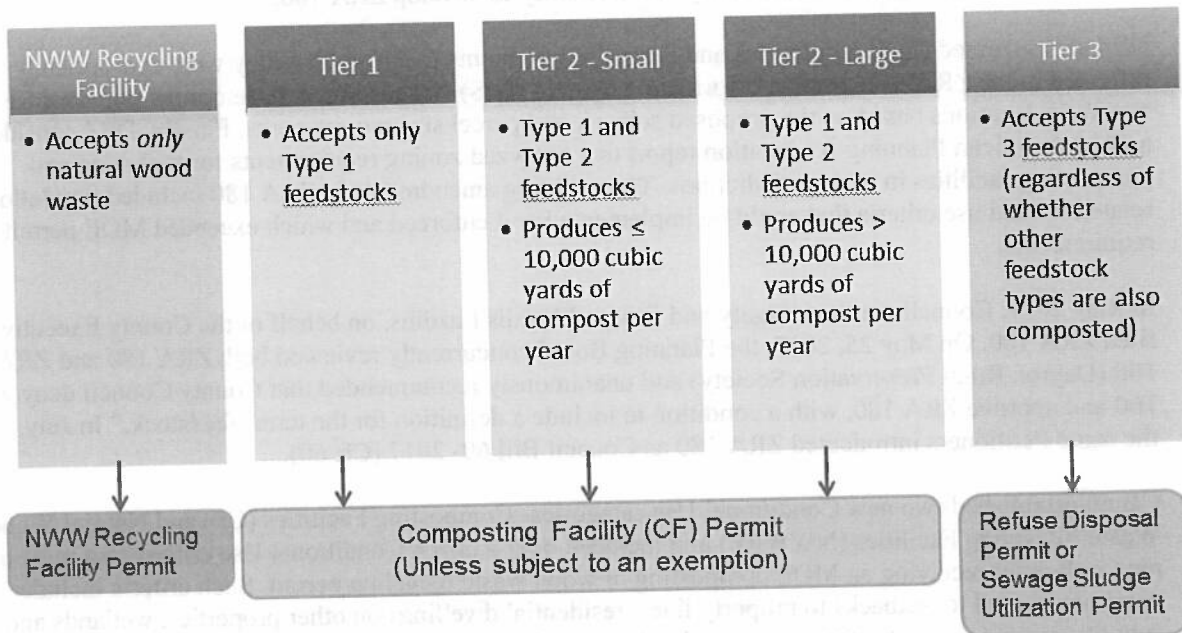
- Water pollution of wells, streams and groundwater,
- Airborne pollutants (dust, mold spores),
- Noise generated by grinding equipment and trucks,
- Road and bridge damage by trucks and hazards to cyclists and pedestrians,
- Visibility of facilities from roads and surrounding properties,
- Fire hazards, and,
- Scale on Agricultural Preservation parcels

Concurrently, Maryland Department of the Environment (MDE) was in the process of revising and updating the State’s composting regulations. The new composting regulations (COMAR 26.04.11) were finalized and became effective July 1, 2015. The MDE Regulations created three tiers of composting activities based on feedstock type and the respective level of environmental risks. MDE Composting Tiers and feedstock types are summarized in the following diagrams.

MDE Feedstock Types



MDE Facility Tiers



In August 2015 the Dayton Rural Preservation Society (DRPS) submitted ZRA 160, which included many of the recommendations contained in the Minority Report. In response, DPZ was asked to convene a work group to assess the ZRA and to provide recommended changes, which ultimately became ZRA 180.

The Mulch Work Group (MWG) met from November 2015 through March 2016. It included four Task Force members (two from the farming community and two residents) and was supported by DPZ staff. The MWG discussed many of the same issues as the Task Force; however, its focus was much narrower - to guide the development of Zoning Regulations. Topics included:

- Appropriate zoning districts for commercial operations;
- Scale and size of mulch and composting operations;
- Setbacks;
- Location/road conditions;
- Fire safety;
- Screening/buffering;
- Ground water contamination;
- Dust control, and;
- Agricultural Preservation parcels.

Both the Task Force and MWG extensively discussed the scale of mulch/compost operations; what constituted a commercial or industrial operation; and what scale of operation should be permitted on farm properties. DPZ worked closely with the MWG to develop Conditional Use criteria that could be enforced for mulch and composting operations requiring an MDE NWWRF or CF permit.

In addition to discussions with the MWG, DPZ reviewed the work of the Wood Waste Task Force and collaborated with representatives from Fire and Rescue Services, Howard Soil Conservation District, Environmental Health Department, DPZ Resource Conservation Division, Economic Development Authority, and the Office of Community Sustainability to develop ZRA 180.

DPZ also assessed MDE regulations and permit requirements to ensure that they were appropriately reflected in the ZRA. Geographic Information System (GIS) was also used to determine potential CF and NWWRF locations based on the proposed setback and parcel size requirements. Finally, DPZ considered a 2014 American Planning Association report that analyzed zoning requirements for mulching and composting facilities in other jurisdictions. The resulting amendments in ZRA 180 included regulations related to land use criteria that could be implemented and enforced and which exceeded MDE permit requirements.

In May 2017, Councilmembers Sigaty and Fox and Valdis Lazdins, on behalf of the County Executive, filed ZRA 180. On May 25, 2017, the Planning Board concurrently reviewed both ZRA 180 and ZRA 160 (Dayton Rural Preservation Society) and unanimously recommended that County Council deny ZRA 160 and approve ZRA 180, with a condition to include a definition for the term 'feedstock.' In July, 2017 the same Petitioners introduced ZRA 180 as Council Bill 60- 2017 (CB 60).

CB 60 established two new Conditional Use categories- Composting Facilities (CF) and Natural Wood Waste Recycling Facilities (NWWRF) and included over a dozen Conditional Use criteria that must be met, only after receiving an MDE composting or wood waste recycling permit. Such criteria included, but were not limited to: setbacks to property lines, residential dwellings on other properties, wetlands and schools; screening and buffering; review by the Fire Marshall; hours of operation; and size limitations. The bill also incorporated MDE's recently revised composting regulations.

The Council considered CB 60 between July and November, 2017 and approved the Bill (3-2) with a

number of amendments on November 6, 2017. However, a timing error occurred causing CB 60 to expire and the approval to be invalidated. The proposed ZRA 183 reflects the amended version of ZRA 180 that was approved as CB 60 and subsequently invalidated.

Also on November 6, 2017, Council approved Council Bill 78-2017 (CB 78), amending the Fire Code to require that piles of certain heights, regulated by the Fire Prevention Code, be turned or reclaimed in accordance with State law, specify pile height requirements, add that certain materials may constitute a public nuisance, and clarify that right to farm does not apply when an agricultural operation does not comply with the Fire Prevention Code. The enrolled version of CB-78 was included as Exhibit D of the Petition.

II. DESCRIPTION AND EVALUATION OF PROPOSAL

The proposed text amendment is attached as Exhibit A – Petitioner’s Proposed Text.

The 2015 MDE regulations (COMAR 26.04.11) include permit requirements for the operation of Composting Facilities categorized across three levels, or tiers, based on the types of processed materials (feedstocks) and the potential for environmental risks. NWWRF are regulated by MDE in accordance with COMAR 26.04.09. Extensive permit requirements regulate a broad range of processes involved in operating CF and NWWRF.

The MDE permits address many criteria, such as groundwater contamination, feedstock types, pile heights, operation, maintenance and rehabilitation plans, soils management plans, grading, runoff control, storm water management, fire control, odors, noise, dust, and other operational aspects. Further, MDE exempts certain on-farm composting operations that are small in size/scale and that meet certain criteria. MDE allows exemptions to these operations as they do not pose environmental or health risks. A summary of these exemptions is in Appendix A.

Both ZRA 180 and 183 propose that the HCZR apply only to mulch and composting operations requiring an MDE permit and that mulch and composting operations not requiring an MDE permit are considered accessory use to a farming operation. However, COMAR 26.04.11.04 contains general restrictions that apply to composting regardless of the need for a permit (see Appendix B).

The sections below describe the amendments proposed in ZRA 183 (the approved/amended version of CB 60), as compared to ZRA 180 (the filed version of CB 60), reviewed by the Planning Board. Additionally, Appendix C compares the current regulations, ZRA, 160, ZRA 180 and ZRA 183.

Section 103.0: Definitions

The amendment includes definitions that align local zoning definitions with MDE definitions. The definitions for Firewood Processing, Natural Wood Waste, Natural Wood Waste Recycling Facility, and Sawmill are the same as ZRA 180 and the definitions for mulch manufacturing and Yard Waste Recycling Facility are deleted in both.

ZRA 183 combines the previously defined terms Composting and Composting Facility in ZRA 180 into a new Composting Facility definition to clarify that composting is allowed as an accessory use if a permit from MDE is not required. It also adds a definition for Natural Wood Waste Recycling to differentiate it from a Natural Wood Waste Recycling Facility, as an operation that does not require an MDE permit.

ZRA 183 also defines Feedstock, as recommended by the Planning Board, and Horticultural Nursery to clarify the types of farming operations that allow small scale (less than 1 acre) NWWRFs as accessory conditional uses on ALPP easements.

Section 104.0: RC Rural Conservation) District and Section 105.0: RR (Rural Residential) District

Identical to ZRA 180, the proposed amendments allow small scale (less than 3 acres) Composting Facilities in RC and RR with an approved "Permit for Special Farm Uses," that are accessory to a principal farming use. These facilities require an MDE permit in addition to a county-issued Special Farm Permit with restrictions as described in Section 128.0 below. The Special Farm Permit criteria are listed in Exhibit A of the Petition, Section 128.0.I.9., and are cross referenced in the Accessory Use provisions of Sections 104.0 and 105.0.

This amendment was also proposed in ZRA 180, recognizing that some composting operations on farms will not meet the criteria for an MDE permit exemption (summarized in Appendix A) despite primarily serving as a waste and nutrient management function. For example, composting operations that exceed 40,000 square feet do not qualify for an MDE permit exemption. Therefore, a one-acre composting operation that solely supports a farming operation would require an MDE permit. This is a common issue for farms using the traditional windrow method to compost. The capacity of windrow turning machinery determines pile height - the less capacity the smaller the piles, and the more land area needed to support the operation. Typically, machines are limited to 4-6 foot pile heights, which must be spaced to allow access. This traditional windrow turning scenario could easily surpass 40,000 sq. ft., yet the entire composting operation's purpose is to provide a necessary waste and nutrient management function to support the farm and not for commercial enterprise.

Section 106.1: County Preservation Easements

The proposed amendments are the same as ZRA 180, with the exception that Natural Wood Waste Recycling Facilities accessory to a Horticultural Nursery rather than a Tree Farm be allowed as Conditional Uses on ALPP Purchased and ALPP Dedicated Easements, subject to limitations in Sec. 131.0. This section also allows Composting Facilities subject to the requirements of a Section 128.0 Special Farm Permit on ALPP and ALPP Dedicated easements.

Section 131.0- Conditional Use and Section 128.0- Special Farm Permit conditions are described in more detail in the respective sections below.

Section 122.0: M-1 (Manufacturing: Light) District and Section 123.0: M-2 (Manufacturing: Heavy)

Manufacturing Light (M-1):

The amendment deletes the term Mulch Manufacturing as a use permitted as a matter of right and replaces it with Natural Wood Waste Recycling and Natural Wood Waste Recycling Facilities, amending terminology but the allowable activities remain the same as present.

Currently, only Yard Waste Composting (Type 1 feedstock) is permitted in M-1 as a Conditional Use. Composting of other feedstocks such as food waste, animal bedding, animal waste, etc. is not permitted in any zoning district since the use category was removed through CB-20-104/ZRA 149. ZRA 183 proposes to allow Tier 1 and Tier 2 - Small Composting Facilities as Conditional Uses in M-1, while ZRA 180

proposed to allow them by right. Therefore, ZRA 183 continues to allow composting as a Conditional Use in M-1 and expands the items that may be composted to include Type 2 feedstock.

Manufacturing Heavy (M-2):

ZRA 180 proposed to allow all types of Composting Facilities and NWWRF's by right in M-2. ZRA 183 proposes to allow Composting Facilities that abut residentially zoned property as a Conditional Use and by right where they do not.

DPZ concurs that NWWRFs and Composting Facilities are appropriate and complimentary uses to industrial zoning districts. The M-1 and M-2 zoning districts permit a number of uses by-right that have potential adverse environmental impacts and that are less regulated. Further, the newly adopted MDE Composting Facility permit requirements regulate many environmental aspects of composting such as water quality and nutrient management.

Section 124.0: SW (Solid Waste) Overlay District

The proposed text amendment adds Tier 3 Composting Facilities as a permitted use.

The SW Overlay District is a special district for certain solid waste processing facilities and requires Preliminary Development Plan approval by the Zoning Board. This district currently permits land clearing debris landfills, rubble landfills, and solid waste processing facilities as a matter of right in an underlying M-2 zoning district. The SW Overlay District, which provides opportunities for alternatives to solid waste disposal in landfills, is the appropriate zoning district for these facilities. ZRA 180 incorporated Tier I, Tier II and Tier III Composting Facilities into the SW Overlay District, however, ZRA 183 limits this overlay to Tier 3 facilities to ensure there are not conflicts with other sections of the code that regulate Tier I and Tier II facilities.

Section 128.0: Supplementary Zoning District Regulations

The proposed text amendment adds a Special Farm Use for Composting Facilities that require an MDE Type 1 or Type 2 - Small permit up to 3 acres, with the following conditions:

- A copy of the MDE permit application and any applicable operations or emergency preparedness plans must be submitted to DPZ;
- HSCD must review and provide comment on the proposed operation;
- Limited on-site sales that do not exceed 5% of yearly production are allowed, except farms that do not have an outstanding installment purchase agreement, may sell in excess of the 5% if required by the nutrient management plan; and
- Commercial off-site sales are prohibited unless the product is shipped with trees, shrubs, or plants.

The Permit for Special Farm Uses would allow the County to apply certain criteria and ensure access to operational plans and MDE permitting information for composting operations that provide a necessary waste and nutrient management function to support the farm. While ZRA 180 proposed to regulate truck activity to limit sales on farms, ZRA 183 proposes to limit the amount of product that can be sold (5% of yearly production). Either means of limiting on-site sales are acceptable, however, limiting truck activity is easier to enforce.

Section 131.0.N & O: Conditional Uses

Currently, NWWRFs are allowed as a Conditional Use in RC/RR and by right in M-1/M-2. Yard Waste Composting is allowed in RC, RR and M-1 as a Conditional Use. The proposed amendment would delete the Yard Waste Composting use category and replace it with a new use category- Composting Facilities, and delete Mulch Manufacture from Sawmills/Bulk Firewood/Soil Processing use category, creating a new use category – Natural Wood Waste Recycling Facility.

ZRA 183 proposes to allow NWWRFs as Conditional Uses in RC and RR and the following types of Composting Facilities as Conditional Uses:

- Tier I and Tier II Small in RC and RR, with size and location limitations
- Tier I and Tier II Small in M-1
- Tier I, Tier II Small and Large in M-2 that abut a residentially zoned property

Subsections A-P in Sections 131.0.O.2 (Composting Facilities) and 131.0.O.4² (Natural Wood Waste Recycling Facility), contain restrictions and conditions for both conditional use categories and are described together below:

1. Section 131.0.O.2.A and 131.0.O.4.A. - Agricultural Land Preservation Program: The amendment proposes to prohibit Composting Facilities as Conditional Uses on ALPP, MALPF or other dedicated easement properties. However, some Composting Facilities are allowed if they are accessory to a principal farming use and a Section 128.0 Special Farm permit is obtained.
This section also prohibits all NWWRF on those same easement properties unless the facility is accessory to a principal Horticultural Nursery use. This allows nurseries to sell and transport mulch as a soil amendment to the tree and plant sales. However, a number of size limitations are proposed. The maximum use area cannot exceed 1 acre and cannot exceed 15% of the area in active production. Additionally, retail sales may not exceed 5% of yearly production.
2. Section 131.0.O.2.B and 131.0.O.4.B - Allowable Materials: Only processing of feedstock materials as defined by COMAR are allowed.
3. Section 131.0.O.2.C and 131.0.O.4.C - Minimum Lot Size: The amendment proposes a 10-acre minimum lot size requirement in RC and RR and 1-acre in M-1 and M-2. Larger lot size restrictions are appropriate in rural districts to ensure compatibility with surrounding residential uses.
4. Section 131.0.O.2.D and 131.0.O.4.D - Maximum Use Area: The amendment proposes a maximum use area in RC and RR of 1 acre or the lesser of 5 acres or 10% of the site for properties that abut an interstate. The use area includes space for storing, processing, buffering, soil and nutrient management and stormwater management. Unlike ZRA 180, ZRA 183 only allows Composting Facility and NWWRF conditional uses to be combined if the property abuts an interstate and is located within one mile of interchange gore area.
5. Section 131.0.O.2 and 131.0.O.4.E through G - Compliance with State and other regulations: Conditional Use applicants may not have final MDE permit approval at the time of application. However, compliance with MDE permit requirements will be detailed in the permit application and accompanying materials. Therefore, the proposed Conditional Use criteria requires the applicant submit various compliance documentats for DPZ to consider in its technical analysis. The Hearing Authority may also consider this material and place conditions on the Conditional Use approval. Any future major changes to the MDE permit would be considered a modification or alteration of an approved Conditional use and would need to be

² These section references will need to be amended to reflect other recent zoning regulation amendments that become effective prior to enactment of this ZRA. For example CB-53-2017 created a new Section 131.0.O.4.

approved by the Hearing Authority.

6. Section 131.0.O.2.H and 131.0.O.4.H - Setbacks: ZRA 183 increases the setbacks from existing dwellings on different lots from 300 feet to 500 feet, to be consistent with existing mulch manufacturing setbacks. It also changes the 200 foot setback from property lines to 300 feet from a residential lot. The proposed setbacks from existing streams and wetlands and schools remain the same as ZRA 180, which were based on consultation with various environmental professionals and research on state standards and best management practices. The results of this research found that a maximum 100-foot setback to streams and wetlands is appropriate for water quality mitigation and that vegetative buffering is a more effective means of mitigating water quality impacts rather than distance.

Both ZRA 180 and 183 allowed the Hearing Authority to reduce setbacks to account for individual property constraints if adequate justification is provided. A setback reduction will be based upon an HSCD Supplementary Project Evaluation (SPE). The SPE will analyze soil and sedimentation and provide recommendations for buffering and planting to mitigate any potential groundwater contamination. The SPE will also influence site design based on application of MDE Standards and Specifications. MDE has approximately 80 standards and specifications that are used to guide site design and mitigate impacts such as windbreak, runoff, ground water, etc. This evaluation and HSCD's recommendations will provide guidance to the Hearing Authority to determine if reduced setbacks are appropriate.

7. Section 131.0.O.2.I and 131.0.O.4.I - Screening: Proposes various means to screen operations including environmental or topographic features that provide a natural screen.
8. Section 131.0.O.2.J. and 131.0.O.4.J - Requires a Site Development Plan (SDP) for all proposed NWWRF or CF and alternative compliance is not be permitted. Stormwater management regulations are applied through the SDP process and all MDE standards will need to be met. Additionally, traffic and fire protection will be analyzed based on detailed site planning.
9. Section 131.0.O.2.K and 131.0.O.4.K - Conditional Use petitions will need to identify the proposed methods for disposal of leachate and runoff.
10. Section 131.0.O.2.L and 131.0.O.4.L - Establishes hours of operation that can be reduced by the Hearing Authority.
11. Section 131.0.O.2.M and 131.0.O.4.M - Allows for on-site retail sales only if approved by the Hearing Authority.
12. Section 131.0.O.2.N and 131.0.O.4.N - Road Capacity- DPZ reviewed the condition of bridges in western Howard County based on Department of Public Works data. All but one bridge was deemed to be sufficient for truck traffic. Conditional Use petitions will be required to submit a road and bridge analysis based on proposed truck traffic for review by the Hearing Authority.
13. Section 131.0.O.2.O and 131.0.O.4.O - Lists a number of additional requirements to be depicted on the proposed Conditional Use Plan.
14. Section 131.0.O.2.P and 131.0.O.4.P - Establishes requirements for site remediation for NWWRF or CF that cease operations for two years or more.

Relation to the General Plan

PlanHoward 2030 discusses the interplay of agricultural and commercial uses and recognizes that "In a rapidly changing economy, Howard County farmers should be able to utilize innovative farming practices so they too can adapt to the evolving market. Enhancing their ability to farm efficiently is critical to the growth of Howard County and its ability to maintain a diverse economy. However, new development plans and conditional uses should include better buffers to reduce conflicts with neighboring residents."

Policy 4.5 seeks to "Refine the RC and RR zoning regulations to provide greater flexibility for the

agricultural community as well as appropriate protections for rural residents.” The proposed amendment is consistent with this policy.

Relation to the Zoning Regulations

While some adverse impacts could result from mulch and composting on agricultural lands, those impacts would likely be mitigated through MDE regulations and local fire and health codes.

III. AGENCY COMMENTS

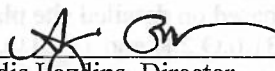
No formal comments were received. Representatives from Fire and Rescue Services, Howard Soil Conservation District, Environmental Health Department, DPZ Resource Conservation Division, Economic Development Authority, and the Office of Community Sustainability have been involved in the drafting of both ZRA 180 and ZRA 183.

IV. RECOMMENDATION

APPROVAL.

For the reasons noted above, the Department of Planning and Zoning recommends that ZRA-183 be APPROVED.

Approved by:


Valdis Iazdins, Director

12-28-17
Date *for*

NOTE: The file on this case is available for review by request at the Public Service Counter by appointment in the Department of Planning and Zoning.