HB 1060 - HGO - Unofficial Hearing Digest_Correcte Uploaded by: Adrian Gardner

Position: FAV

HB 1060 – Cremation – Natural Organic Reduction – Regulation Maryland House of Delegates Health and Government Operations Committee Unofficial Hearing Digest Wednesday, March 8, 2023

#	Video	Question / Answer /Comment
1.	3:16:30	Chair Pena-Melnyk
		The Chair called the hearing to order for House Bill 1060 – Cremation – Natural Organic Reduction – Regulation, and invited the bill sponsor to assemble the first panel.
2.	3:16:49	Delegate Kaiser (Sponsor) Delegate Kaiser thanked the Chair and Committee Members. She reported that, after her initial reluctance to sponsor HB 1060, she was persuaded to do so after thinking carefully about it. Delegate Kaiser explained that, while she planned to follow her Jewish tradition and expected to be buried in a simple pine box after she dies, her religious beliefs also preclude her from interposing on people who follow different practices or beliefs. Delegate Kaiser believes that natural organic reduction will give people a sustainable alternative to cremation or burial after death. She explained that natural organic reduction — or "NOR" — gently transforms human remains into soil in 4 to 6 weeks using large vessels to hold the remains that are combined with straw, wood chips and other natural materials. The process of decomposition then creates heat over 130 degrees to kill viruses, bacteria and pathogens. Delegate Kaiser said the process is environmentally sound, popular and also workable based on authorizing legislation passed in other states. She reported that amendments have been drafted to resolve some confusion about shared oversight by the State's Office of Cemetery Oversight (OCO) or the Board of Morticians and Funeral Directors (BOMFD). Delegate Kaiser concluded by noting that the bill merely provides another
		option when they pass and she asked the committee for a favorable report.
3.	3:19:43	Lily Burkle (Green Legacy Brands LLC) – Favorable w/Amendments Lily Burkle thanked the sponsor and the committee for starting the conversation about natural organic reduction. She then introduced herself as a mortician licensed in Maryland, D.C. and Virginia, who has worked in funeral homes mostly in Maryland for nearly a decade – serving all different types of families. Ms. Burkle said she was before the committee representing the families who have been searching for greener funeral options for a long time – since the options in Maryland have not changed much since the Civil War. She expressed her support for the bill and promised to make three main points. First, she explained, the bill is about adding a greener option – one additional choice – not about eliminating any of the current practices or options for families or practitioners. Second, Ms. Buerkle cited conflicting statistics from the National Funeral Directors Association that, although more than 60% of consumers want green funeral options, the rates for fire cremation in Maryland are projected to reach 75% by 2040. Third, she expressed strong support for natural burial practices, but explained that that burial method would not be sufficient to solve the environmental impact of deathcare alone, which is one of the reasons to support passing the bill. In closing, Ms. Buerkle noted that many people in Maryland are trying to live more sustainable lives and do not want their final act to be one that delivers a half-ton of carbon into the atmosphere (which fire cremation does). She urged the committee for a favorable report so that more Marylanders can choose to die a more sustainable death.
4.	3:21:42	Adrian Gardner (Green Legacy Brands LLC) – Favorable w/Amendments Adrian Gardner introduced himself as a founder of Green Legacy, a company that is trying to bring natural organic reduction as an option in Maryland. He invited the committee to ask him about the bill amendments (referenced by Delegate Kaiser), but said he would focus his testimony on his journey to becoming an advocate for the bill. Mr. Gardner explained that almost one year to-the-day before giving his testimony, he had taken his mother for a medical scan that ultimately confirmed her terminal condition. He reported that she had died during previous June, had a magnificent funeral and that his family was

Video **Question / Answer / Comment** managing her loss okay. Under those circumstances, he had become a funeral consumer looking for green options. About the same time a year ago, Mr. Gardner reported that he had listened to a Ted Talk on the subject of natural organic reduction. Eventually he retired after working for more than 20 years as a lawyer for a public agency in the state, and Mr. Gardner said he decided to start up his company with Ms. Buerkle because Maryland offers so few green options. He allowed that, although natural organic reduction would not have been the right choice for his mother's death, the process should have been available as an option for his family; but wasn't. Mr. Gardner concluded by saying the reason he is advocating for passing the bill is to give his son the option of natural organic reduction when he dies, along with providing that option for his nieces, nephews and others in the next generation. He urged the committee to "vote green." 5. 3:23:52 **Delegate Hutchinson (HGO)** Delegate Hutchinson observed an entrepreneurial aspect of matching a market need with a positive environmental impact. After a friendly, humorous repartee, he asked whether market research showed a justification for investing in natural organic reduction in Maryland. Mr. Gardner responded. Mr. Gardner believes the market for NOR is viable because so-called "green burial" is the only potential option in the area and it does not work in many situations. For example, he discussed families that may want to inter a loved one in Arlington National Cemetery or together with others family-members in a cemetery plot that does not follow green practices. In those instances, Maryland does not offer any green option that would be suitable. As such, he considers the few cemeteries that do follow green burial practices – no grave liners or embalming, for example – as the only options in Maryland. Mr. Gardner indicated that his company (Green Legacy) is not the only company that is interested in providing NOR in Maryland, but that he and Ms. Buerkle want to be first because, as she testified earlier, so many families in Maryland express the desire for more green options. He closed by citing a recent example of a Maryland family that made arrangements to send a loved one all the way to North Carolina to have a green burial option. 3:26:08 6. **Delegate White (HGO)** Delegate White asked about a letter of concern filed by the Board of Morticians and Funeral Directors (BOMFD) regarding the bill and whether the amendments proposed would address the concerns, including those related to the Maryland Department of Environment. Mr. Gardner reported that the amendments had been prepared, in part, to address concerns by the BOMFD, the Office of Cemetery Oversight (OCO) and a Maryland association of funeral consumers. He explained the amendments had two key aspects. First, although the original bill would have excluded OCO from issuing permits for natural organic reduction, the amendment changes that - that is, as amended, the bill will now include OCO following the same shared regulatory jurisdiction with BOMFD over crematories in the state. Second, the amendments amplify the subject matter of the regulation of natural organic reduction to include: registration requirements, operating requirements, training requirements and procedures for handling soil. Mr. Gardner believes those amendments should help to address most of the BOMFD concerns. 7. 3:28:20 **Delegate Johnson (HGO)** Delegate Johnson noted that the bill uses the term "accelerated" (in the definitions of NOR on page 5 at line 5 and line 20). That term led him to question whether the process involved the use of any chemicals. Ms. Buerkle responded that no chemicals were involved. She explained that everyone has gut bacteria present in their body that will begin the process of decomposition immediately upon death. So the process allows the naturally occurring bacteria to work in an environment that controls moisture within organic material and takes advantage of the naturally occurring process initiated by the bacteria. As it begins breaking down the body, the bacteria also creates heat that will kill pathogens as well.

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8.	3:29:35	Delegate Martinez (HGO)
		Delegate Martinez asked about the process after a body transforms into soil through natural organic reduction – whether the funeral home would maintain the soil, it would be given to the family or whatever. Ms. Buerkle compared it to the results of fire cremation where the family receives cremated remains that are crushed bones that comprise about the same in volume as a sack of sugar. By contrast, with natural organic reduction, she explained that the family also has the choice of what to do with the soil, but that the volume is much greater – about the volume of a pickup truck bed. Ms. Buerkle explained that operators normally give the family only a portion of the soil with the remainder being donated to sustain new life in a conservation forest or, if the family is able to handle the entire volume, it can be taken back for family use.
9.	3:30:49	Delegate Woods (HGO)
		Delegate Woods asked for someone on the panel to elaborate on how the remains (soil) can be used to help the environment. Mr. Gardner echoed the discussion by Ms. Buerkle about soil and mentioned that various companies
		offering natural organic reduction were taking slightly different approaches to the disposition of soil. He noted that some are offering the family a small portion, but families can use it for scattering or planting – wildflowers or trees, for example. Mr. Gardner mentioned that, as he recently learned while becoming a certified crematory operator, many families across the country have no plans for cremated remains and leave them sitting idly on their mantles with no place to go. By contrast, as one illustration, because the soil is fertile, he mentioned the possibility of a family using it to plant a memorial tree on a property that is considered special. Mr. Gardner suggested the members consider also asking the next witness, Katrina Spade to follow up on this question because she is the person who invented the natural organic reduction process for humans.
10.	3:32:44	Delegate Lewis (HGO) Delegate Lewis asked if there are certain types or categories for which natural organic reduction would not be indicated.
		Ms. Burkle responded substantively that, for the same reasons that embalming does not eliminate the biological risk, natural organic reduction is not suitable when people have died of prion diseases. She explained that prion diseases are protein diseases typically found in the brain – for example, Crutchfield-Jacobs disease in humans or what people call "mad cow disease" in animals. Ms. Buerkle said that tuberculosis is another disease where NOR may not be indicated and she emphasized again that these biological risks are also associated with embalming.
11.	3:34:04	Delegate Taveras (HGO)
		Delegate Taveras thanked the sponsor for the bill and mentioned that she had been able to speak in advance with Mr. Gardner. She asked the panel to discuss the price point on natural organic reduction and the relative environmental benefit.
		Mr. Gardner responded that, based the pricing he had observed for NOR providers he had reviewed to date, the prices offered were comparable to most traditional cremation funerals – with the exception of the lowest-cost option known as "direct cremation." For illustrative purposes, he reported that the prices for the basic full service could range between \$5,000 and \$7,000 which, he explained, was less than average funeral costs in Maryland which are among the highest in the country at about \$10,000.
12.	3:36:06	Delegate Lopez (HGO)
		Delegate Lopez thanked the sponsor for the bill and asked the panel whether it also covered the process of natural organic reduction for pets or animals.
		Ms. Buerkle answered that pets and animals were not addressed in the bill. Mr. Gardner also indicated his belief that the disposition of pets and animals is not regulated.

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13.	3:36:38	Delegate Rosenburg (HGO) Delegate Rosenburg asked the sponsor what the response would be to any hypothetical opposition to the bill. Delegate Kaiser responded that the nature of the opposition would matter. If the objections were based on personal grounds, her response would be to point out that the bill is about choice. If the opposition is from the regulators, the question of shared jurisdiction is resolved. Overall, Delegate Kaiser concluded, natural organic reduction is available in other states and she believes Maryland should make it available too as a choice that people should have. She offered to follow up with Delegate Rosenburg if elaboration later seems appropriate.
14.	3:37:27	Delegate Bhandari (HGO) Delegate Bhandari asked: how to ensure that natural organic reduction is sustainable and does not have negative environmental impacts; what is the proper way to dispose of the resulting soil to avoid traces of harmful chemicals or pollutants; and what methods can be used to mitigate such risks? Delegate Kaiser suggested that Ms. Buerkle can follow up directly with Delegate Bhandari to answer his questions in more detail. In the moment, Delegate Kaiser said that she is advised there is no environmental down-side to NOR because the pathogens are destroyed in the process and our bodies naturally metabolize medicinal substances as the process concludes. As a practical matter, she added that any policy concerns that materialize after passing the bill could be addressed in follow up legislation but that, based on the reports so far from other states, there are no apparent down sides.
15.	3:38:54	Chair Pena-Melnyk The Chair asked how many states have allowed NOR. Delegate Kaiser identified the six states that had passed legislation so far as: Washington, Colorado, Oregon, Vermont, California and New York. The Chair then asked Delegate Kaiser to investigate the response in those states so far and to provide that information to the subcommittee's deliberation. Delegate Kaiser pledged to follow up as requested by the Chair.
16.	3:39:18	Chair Pena-Melnyk Seeing no other questions by the committee, the Chair excused the panel and thanked them. She then announced the next witness who was attending virtually.
17.	3:39:46	Katrina Spade (Recompose) – Favorable w/Amendments Katrina Spade thanked the chair and members of the committee for inviting her to discuss HB 1060. She noted that she has testified before about natural organic reduction in several other states around the country and that the conversation today in HGO included the best puns that she's heard so far. Ms. Spade introduced herself as the founder and CEO of Recompose, a licensed funeral home based in Seattle, Washington, that offers NOR to the public. She explains that, over about 10 years, she first conceived of the process of natural organic reduction and developed it for the public to utilize. Ms. Spade echoed that, as the previous panel discussed, NOR has been proven safe and effective for human deathcare after being used in agricultural settings for over 30 years. She highly recommended that the committee peruse the regulations adopted by Washington State because they cover the safety issues raised during a previous discussion. Ms. Spade also confirmed that her company's assessment of the environmental impact that each case where NOR is selected will save a metric ton of carbon in comparison to either cremation or conventional burial. She explained that the impact is multiplied as more and more people begin to select the carbon-saving process. Finally, as to the previous question about whether a viable market for NOR exists, Ms. Spade pointed out that fully one-third of her company's customers are being drawn from outside of Washington State – from away as far as Texas and West Virginia. She concludes that demonstrates a nation-wide appetite in the marketplace for this green funeral option.

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18.	3:42:44	Chair Pena-Melnyk
		The Chair encouraged members to take advantage and ask the witness questions because she is an expert.
19.	3:42:50	Delegate Bhandari (HGO)
		Delegate Bhandari appreciated that Ms. Spade would provide an expert perspective on the subject matter of the bill. He asked her to elaborate on several specific concerns with natural organic reduction: possible contamination of soil and groundwater; the risk of emitting greenhouse gasses; the potential spread of pathogens and diseases; as well as odors and aesthetic issues or unpleasant visual impacts for nearby residents associated with the process. Ms. Spade explained that NOR begins inside of enclosed chamber – called a "vessel" – that is aerated and treats the air with bio-filters. From an aesthetic perspective, she explained it's analogous to cremation because the process involves placing the remains inside a piece of equipment and the transformation occurs inside of that equipment. So, there would be no visual experience outside of the equipment or outside of the facility in which it is contained. Ms. Spade also discussed safety and elaborated on the potential for pathogens by noting that the process
		of composting livestock has been thoroughly researched and is favored for fighting bio-pathogens. She cited examples where the authorities fought outbreaks of avian flu by composting infected flocks precisely because it's so good at destroying pathogens and creating material that is safe.
		Contrary to an assumption that natural organic reduction would produce methane as a body decomposes, Ms. Spade discussed why it does not. Specifically, she explained that bodies decomposing in the ground produce those gasses because they are contained in an anerobic environment. (Note: Webster's defines anaerobic as: occurring or existing in the absence of free oxygen.) By contrast, Ms. Spade said that NOR occurs in an aerated process; that is, an aerobic environment that does not produce methane as the microbial activity is managed. (Note: Webster's defines aerobic as: occurring or existing only in the presence of oxygen.) With regard to Delegate Bhandari's concern about a potential for decomposition to contaminate soil and
		groundwater, Ms. Spade explained that natural organic reduction elevates the temperature of the body while it is inside of the vessel above levels that will kill pathogens. Under the regulations adopted in Washington State, the operator is required to monitor the temperature to ensure that threshold temperatures are achieved in each cycle and, in a measure of redundancy, the regulations also require a certain third-party testing protocol to further assure the resulting soil. She concluders there is no harm or risk exposure to soil or groundwater.
20.	3:45:56	Delegate Chisolm (HGO)
		After noting that the State of Washington has a lot more open land than Maryland, Delegate Chisolm asked about the quantity of space needed to hold the equipment required for a natural organic reduction facility.
		Ms. Spade recounted that NOR was conceived as a green funeral option for cities – a funeral process that could help urban areas that were running out of cemetery space with an alternative that would be ecofriendly and not require a lot of property. Like most NOR operators, Recompose has designed its vessels to be stacked vertically into an array that can fit into a warehouse-type of space. A vessel is specifically designed for a one-per-cycle throughput, such that each vessel is reused after each cycle and a cleaning. A typical facility does not use much more space than a conventional crematory.
21.	3:47:46	Delegate Taveras (HGO)
		Delegate Taveras asked the witness to discuss the marketing approach utilized for the natural organic reduction business.
		Ms. Spade reported that she realized the challenge involved in promoting something about which many people would be squeamish. In that reason, she wanted to be really clear that the process involved

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		"returning to earth" – about creating soil out of our bodies and rejoining the ecosystem again. Ms. Spade said her team tries to keep that focus in clear and direct messaging.
22.	3:48:38	Delegate Johnson (HGO) Delegate Johnson asked how long the NOR process takes and whether there is any toxicity to the biofilters. Ms. Spade reported the bio-filters are not related to toxicity but utilized mostly to scrub the air to control the odors before discharging outside of the facility. They are constructed like big boxes that are filled with loose organic material she described as being shaped "like big kitty litter" that absorbs any odors. As for the cycle time, for the process at her company Recompose, the process takes about one month inside the vessel. After that, the staff removes the soil and places it in a different container to cure for approximately one month. She notes that some operators take longer than the two-month process her company follows.
23.	3:49:56	Delegate Woods asked Ms. Spade to discuss the natural products that can be used to prepare bodies and how families can be involved in the preparation process. Ms. Spade explained that her company invites families to have a ceremony called the "laying in" where the body is eventually introduced into the vessel. She reports that most ceremonies start as gatherings that are to funerals or memorials with ministers or family speakers. The difference is that, after the narrative part is over, the people attending place wood chips, straw, flowers and perhaps favorite books or writings in with the deceased. Then the body is placed into the vessel and the process begins. Ms. Spade also clarified that families are free to use oils to prepare the body and almost any other rituals before the laying in. The only thing that cannot happen to the body before NOR is embalming it.
24.	3:51:37	Delegate Alston (HGO) Delegate Alston asked whether any communicable diseases would survive the NOR process, for example, if the soil was used to plant food. Ms. Spade explained that communicable diseases would not survive because the pathogens are destroyed when the temperatures rise during the process above the safety threshold. She reiterated her earlier testimony that mortality composting is proven to be very effective at using microbes to eliminate pathogens. At the same time, even though there is no biological reason to preclude using soil to produce food, she expressed her personal opinion that it wouldn't be unreasonable to prohibit that use to assuage concerns. For that reason, Ms. Spade recommends people utilize the soil for trees and ornamental planting.
25.	3:52:48	Chair Pena-Melnyk The Chair asked whether there are any zoning restrictions in any of the six jurisdictions where natural organic reduction is allowed, and whether she's aware of any complaints by nearby residents about odor or anything else. Ms. Spade reported that the city of Seattle determined that industrial or manufacturing zones would be the appropriate category for her land use as a natural organic reduction facility. She believes that Denver has made the same determination and that most operators are located within industrial areas because of the space required to handle logistics. Ms. Spade is not aware of any resident complaints because none of the facilities that she knows about are in a residential area. The facility operators seem to gravitate to industrial areas so they can have dock doors, handle material deliveries, etc. She also reported that a local agency regularly tests her facility for odor and that it has passed every time with flying colors.
26.	3:54:15	Chair Pena-Melnyk The Chair thanked Ms. Spade for providing her testimony to the committee. She then called the next and final witness, Sandra Baker.

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27.	3:54:58	Sandra Baker – Favorable Sandra Baker thanked the committee for the opportunity to speak and proposing the legislation. She introduced herself as a licensed mortician and funeral director in Maryland, Virginia and Washington, D.C. Ms. Baker reported that many of the families she serves inquire about which green options are available in Maryland, and that she finds it unfortunate that she doesn't have much to offer. She has encountered families that expressed remorse after burying loved ones using conventional methods when they learned about facilities out-of-state like the one operated by Ms. Spade. Ms. Baker aspires to provide families in Maryland with NOR and more options that are better for the environment.
28.	3:56:26	Chair Pena-Melnyk The Chair thanked Ms. Baker for her patience and announced the conclusion of the committee's bill hearing on HB 1060.

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Please contact us with any comments, additions or corrections.

HB1060 FCAME Senate testimony 3.28.203.pdf Uploaded by: Barbara Blaylock

Position: FAV



Funeral Consumers Alliance of Maryland and Environs

Protecting a consumer's right to a meaningful, dignified, and affordable funeral.

HB 1060 - Support

Testimony for the Senate Finance Committee

of the Maryland General Assembly

Submitted March 28, 2023

The Funeral Consumers Alliance of Maryland and Environs (FCAME) submits this testimony in response to concerns raised by the Maryland Board of Morticians (BOM) and the Maryland Catholic Conference about HB1060.

The BOM professes a concern that classifying Natural Organic Reduction (NOR) as a form of cremation might confuse both practitioners and members of the public. However, alkaline hydrolysis is also classified as a form of cremation for regulatory purposes and NOR is similar to alkaline hydrolysis and flame cremation in that it consists of placing the body in a container and using heat and to some extent mechanical treatment, as well as natural processes, that results in the accelerated reduction of the body to ashes or, in the case of NOR, soil amendment, and bone fragments. The fact that it is classified by the State as a form of cremation for regulatory purposes is not something that members of the public will likely even be aware of.

The BOM also expresses concern that there is not enough data about NOR to write regulations for it. Fortunately, there is quite a lot of experience and research about animal composting and, more recently with human composting at this point, including its effects on human and environmental safety. There are now 6 states where Natural Organic Reduction is already legal. Washington state was the first, where Recompose, the first facility to offer it, began operating in late 2020. Washington, Oregon, and Colorado have already written regulations for it and Vermont, California and New York are in the process of doing so.

The Recompose process was carefully designed with reference to studies of human and animal composting done at the University of Washington by Dr. Lynne Carpenter-Boggs, a professor of soil science and sustainable agriculture. These studies built upon the experience drawn over many years from the composting of large farm animals that have died from natural causes or from large-scale epidemics and is regulated by the USDA to ensure human and environmental safety. The process has been shown to control most viral, bacterial, fungal, and protozoan pathogens. A few exceptions include the anthrax bacillus and prions (which cause mad cow disease and Creutzfeldt-Jakob disease in people).

So, Recompose prohibits people who have had certain diseases, including prion infections, Ebola, or tuberculosis, from undergoing NOR. And it carefully monitors conditions during the process to ensure temperatures adequate to kill pathogens. NOR facilities in Washington state are required to test for fecal coliform and salmonella bacteria as well as certain metals and contaminants.

FCAME welcomes the study proposed by HB0869, currently under consideration in the Senate, that would study the environmental effects of all forms of body disposition. Such a study would be useful in providing



Funeral Consumers Alliance of Maryland and Environs

Protecting a consumer's right to a meaningful, dignified, and affordable funeral.

information that could help consumers make informed choices. But such a study is not likely to be able to provide the depth of information already available from years of experience and study of animal composting or the monitoring of NOR facilities that are currently operating in other states such as Recompose.

In response to the Catholic Conference position that NOR is undignified, FCAME supports anyone's right to make decisions for themselves according to their own feelings about what type of after-death care seems most dignified to them. But a basic tenet of our democracy is the separation of church and state, and the Catholic Church should have no authority to decide for others what constitutes a dignified disposition. Many of us familiar with after death care practices feel that the controlled NOR process, which may be preceded by a "laying in" ceremony with family and friends, is more dignified and intimate than a traditional burial with embalming. And many of us are fine with the idea of simply returning to the earth and having whatever remains of us participate in the ongoing cycle of living and dying by being part of the natural order of things, including cushioning the footfalls of people and animals, and nourishing plants.

FCAME supports the legalization of NOR in Maryland to expand the options available to Maryland residents for environmentally-friendly methods of after-death care.

Barbara Blaylock Chris Palmer

FCAME President FCAME Vice President

Testimony Senate Natural Organic Reduction.pdf Uploaded by: Dixcy Bosley

Position: FAV

Written Testimony to SUPPORT Senate Bill 1060 Natural Organic Reduction

Hello,

My name is Dixcy Bosley and I have been an end of life nurse (AIDS, oncology, hospice) for over 35 years in DC and MD. With a growing interest in protecting our fragile ecosystem as a final legacy, many of my patients have asked me about green burial options. A movement from traditional burial to cremation is only one favored solution recognizing the wastefulness and environmental hazards of current embalming and interment practices.

The green burial movement has been embraced by many as a sustainable, affordable and ecological alternative. Choice at end of life is important. It is empowering. When people are losing their lives, it is significant for them and surviving family members to plan for a burial consistent with their values. Choosing a final resting place among trees and park space, somewhere in nature to be visited and enjoyed is an ultimate wish I have heard many patients express.

Therefore, as a clinician with a vast appreciation for end of life planning, I fully support HB1060 to amend the current law by adding Natural Organic Reduction (NOR) as another choice for the residents of Maryland.

Dixcy Bosley RN, MSN, FNP 1527 Upshur St NW Washington DC 20011

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Position: FAV



Secular Maryland

secularmaryland@tutanota.com

March 29, 2023

HR 1060 - FAV

Cremations - Natural Organic Reduction - Regulation

Dear Chair Griffith, Vice-Chair Klausmeier, and Members of the Finance Committee,

According to Business Regulation §5–101(e) cremation is defined as "the process of reducing human remains to bone fragments through intense heat and evaporation, including any mechanical or thermal process." The phrases "intense heat and evaporation" and "any mechanical" are not well defined and as a result it remains unclear which options other than burial and flame cremation, if any, are allowed for disposing of corpses. Cremation usually occurs within the range of 1400 to 1800 degrees Fahrenheit. Two other reduction methods, resomation (also known as alkaline hydrolysi) and natural organic reduction (a.k.a composting), occur at lower temperatures. The former relies on a chemical process and the latter on a biological process. Both methods should be clearly and explicitly authorized. Secular Maryland supports this bill to authorize organic reduction and we would also support authorizing resomation.

Natural organic reduction uses no hazardous chemicals. In 2019, Washington became the first state to legalize natural organic reduction as a post-life option. The remains are placed on carbon-rich materials, like sawdust and straw, together with a nitrogen rich material, such as alfalfa, moisture, and circulating air. Bacteria and the enzymes they release break down the tissue for at least one month (4-7 weeks). Metal fillings, pacemakers, and artificial limbs are removed. A cubic yard of soil plus bones remains (1.5 to 2 cubic yards total). The resulting soil meets safety standards set by the U.S. Environmental Protection Agency for such contaminants as heavy metals. Commercial processes would likely also process the bones. Composting temperature reach 120-160 degrees Fahrenheit which is sufficient to kill off dangerous pathogens. Someone who dies from a prion or contagious disease would not be a candidate for recomposition.

Traditional cemetery burial is associated with the toxicity of embalming chemicals and consumes wood, metal, and concrete as well as land and water to properly maintain burial grounds. Over 500 pounds of carbon dioxide are released into the atmosphere by each cremation despite efforts to minimize emissions. Demand for cremation, which tends to be less expensive than burial, now exceeds traditional burial, surpassing 50% in 1996. Yet cremation releases mercury vapors from dental amalgams, dioxins, and particulate matter.

Respectfully, Mathew Goldstein 3838 Early Glow Ln Bowie, MD 20716

MBates Testimony in support of HB1060 .pdf Uploaded by: Matthew Bates

Position: FAV

Testimony In Support of HB1060

For several years, I've researched the process of Natural Organic Reduction and tracked bills like HB1060 in states across the country. When I die, I want my remains disposed of with as close to "zero impact" on the environment as possible. I want my body given back to 'Mother Earth,' as safely and completely as possible. This means a great deal to me and Natural Organic Reduction, which HB1060 would permit, is a proven method for doing that.

The fact that legislatures in Washington, California, Oregon, Colorado, Vermont, and New York have legalized Natural Organic Reduction shows how many citizens want access to this safe, environmentally responsible procedure.

I urge you to pass HB1060 and make Natural Organic Reduction available in Maryland.

With thanks,

Dr. Matthew C. Bates 16608 Kipling Road Derwood, MD. 20855-1931

HB 1060 LOS (Senate).pdfUploaded by: Regina T. Boyce Position: FAV

REGINA T. BOYCE

Legislative District 43A

Baltimore City

CHIEF DEPUTY MAJORITY WHIP

Environment and Transportation Committee

Subcommittees

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THE MARYLAND HOUSE OF DELEGATES Annapolis, Maryland 21401

The Honorable Melony Griffith, Chair Finance Committee 3 East, Miller Senate Office Building Annapolis, Maryland 21401

RE: HB 1060 - Cremation - Natural Organic Reduction - Regulation: SUPPORT FWA

Dear Chair Griffith:

I am in support of **HB 1060 – Cremation – Natural Organic Reduction – Regulation** that would give funeral consumers in Maryland the option of natural organic reduction for the final disposition of their loved ones.

The funerary options available in Maryland have been unchanged since embalming became widely available as a result of the Civil War. Some of the chemicals typically used for embalming are toxic and known to be carcinogens. Meanwhile, over the past 20 years or so, more and more of Marylanders are choosing cremation which, according to varying opinions, has environmental impacts.

By all accounts, natural organic reduction does not involve chemicals or smokestack emissions, and equally important, some Marylanders would like another option of service for themselves or loved ones to include that of natural organic reduction.

You may be aware that I have sponsored a study bill that complements HB 1060; specifically, *HB 869 - Department of the Environment - Study on Deathcare and Funeral Practices*. Please note that the purpose of my bill is to establish an empirical baseline of the environmental and health impacts associated with various deathcare and funeral practices including natural organic reduction. HB869 is a complement to HB1060 and elevates this topic of discussion.

Thank you for the opportunity to weigh in on HB1060. I also ask for you favorable report.

Sincerely,

Delegate Regina T. Boyce

District 43A

Rogerof P. Boyce

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Position: FAV



HB1060 - Cremations - Natural Organic Reduction - Regulation

Testimony before

Senate Finance Committee

March 29, 2023

Position: Favorable

Mdm. Chair, Mdm. Vice Chair and members of the committee, my name is Richard Deutschmann, and I represent the 750+ members of Indivisible Howard County. We are providing written testimony today in <u>support of HB1060</u>, to adopt new regulations for safe, environmentally friendly end of life options. Indivisible Howard County is an active member of the Maryland Legislative Coalition (with 30,000+ members). We appreciate the leadership of Del. Kaiser for sponsoring this important legislation.

Cremation of human bodies has become the most popular end-of-life choice for Americans, and for many around the planet. Unfortunately, this process uses fossil fuels, and emits millions of metric tons of CO2 into the air, one of the principal contributors to global climate change. Burial of human bodies collectively uses enormous amounts of concrete and steel, while also taking up precious land space in our towns and cities. Many of us, including our immediate family and numerous friends, are looking for a more environmentally benign choice for our end-of-life protocol. Natural organic reduction is one such method, and has now been approved for use in 6 states including California and New York. Each time a family chooses to use this method for their loved one, it saves more than 2,000 lbs. of carbon from entering the air. And provides both air quality and land use benefits as well.

This bill simply directs the state agency overseeing the Morticians and Funeral Directors to establish new regulations for those that would choose this method of end-of-life protocol, for themselves or for their loved ones. For these reasons, we strongly support HB1060.

Thank you for your consideration of this important legislation.

We respectfully urge a favorable committee report.

Richard Deutschmann Columbia, MD 21045

Testimony re HB 1060 (Adam Levner).pdfUploaded by: Adam Levner

Position: FWA

March 28, 2023

The Honorable Melony G. Griffith, Chair Senate Finance Committee Miller Senate Office Building, 3 East Wing 11 Bladen Street Annapolis, MD 21401

RE: HB 1060 – Cremation - Natural Organic Reduction Regulation: Support - Favorable with Amendments

Dear Chair Griffith:

I write to you to urge your favorable report on HB 1060 – Cremation – Natural Organic Reduction. As a resident of Montgomery County, I am increasingly concerned with the rising cremation rate in Maryland, which both uses fossil fuels and releases carbon dioxide into our atmosphere. It is time to make greener funeral choices available. Natural Organic Reduction is a safe alternative with years of research behind it. I work hard to live sustainably, and I believe I should have the choice to die sustainably too.

Currently, more than half of the 50,000 residents who die in Maryland each year choose fire cremation – for each Maryland cremation, more than 500 pounds of carbon is released into the atmosphere that our children breathe. We must legalize greener end-of-life options like Natural Organic Reduction. I hope this option is available for my family when the time comes. Please vote YES on HB 1060.

Thank you,

Adam Levner 2802 Blaine Drive

Ada leur

Chevy Chase, MD 20815

Delegate Kaiser Testimony in Support of HB 1060 fo Uploaded by: Anne Kaiser

Position: FWA

ANNE R. KAISER
Legislative District 14
Montgomery County

Health and Government Operations Committee

House Chair
Joint Committee on Cybersecurity,
Information Technology and
Biotechnology



The Maryland House of Delegates 6 Bladen Street, Room 425 Annapolis, Maryland 21401 301-858-3036 · 410-841-3036 800-492-7122 Ext. 3036 Fax 301-858-3060 · 410-841-3060 Anne.Kaiser@house.state.md.us

THE MARYLAND HOUSE OF DELEGATES Annapolis, Maryland 21401

Testimony in Support of House Bill 1060: Cremations - Natural Organic Reduction - Regulation March 29th, 2023

Madam Chair Griffith and esteemed members of the Finance Committee, it is my pleasure to come before you and offer testimony in favor of **House Bill 1060: Cremations - Natural Organic Reduction - Regulation**. This bill would add natural organic reduction (NOR) as another choice Marylanders would have after death, providing a sustainable alternative to cremation and burial.

NOR gently transforms human remains into soil in 4-6 weeks. The process uses large vessels to hold human remains which are combined with straw, wood chips, and other natural materials. The decomposing process creates heat of over 131F, which kills viruses, bacteria and pathogens. No chemicals are used.

With significant savings in fossil fuel emissions and land use, NOR addresses the increasing demand for more sustainable alternatives to traditional burial or cremation. Surveys show that 64% of Americans consistently express an interest in green burial options, indicating a need for sustainable alternatives.

Even before the process was first legalized, over 400 customers prepaid a funeral home in Washington State in the hopes it would be allowed eventually. Since then, six states have now legalized the process: Washington, Colorado, Oregon, Vermont, California and New York.

Maryland's funeral industry will have the ability to offer NOR as desired. With growing consumer interest in sustainable alternatives, this legislation simply provides another option for businesses to expand their scope of services (or not) and give people the final word on bodily autonomy.

This bill was amended in the House of Delegates in the following ways:

- To conform to the existing regulatory structure by allowing both the Office of Cemetery Oversight (OCO) and the Board of Morticians and Funeral Directors (BOMFD) to regulate
- To make the bill enabling by changing "shall" to "may"

HB 1060 passed the House of Delegates by a vote of 108-28.

I urge a favorable report on **House Bill 1060**. Thank you.

NOR Support letter.pdf Uploaded by: Carrie Shipton Position: FWA

Hello Senators,

I am asking all of you to vote Yes on HB 1060 for Natural Organic Reduction (NOR).

I'm a lifelong Marylander, Anne Arundel County resident, Board member of the Green Burial Association of Maryland, and Owner of the Natural Burial funeral supply company - Reside Burials.

In my work and research I've talked to countless individuals about their final wishes, and it is clear that people want greener funeral options. I work in Natural Burial which I believe is a beautiful option for someone seeking an environmentally friendly funeral. However, Maryland is projected to have a cremation of 75% by 2040 - for each fire cremation, half a metric ton of carbon is released into our atmosphere. Many people seek cremation because it's a "greener" alternative to the "traditional American burial," and these people may be become interested in Natural Burial when introduced to the idea, but many choose cremation for other socio-cultural or ideological reasons which Natural Burial will not satisfy.

NOR is safe and far greener than our current options (which haven't been updated since the Civil War!). This is not about ending any current practices; it's about adding a new one. It's about letting families grieve in a way that's meaningful to them and that honors their loved one.

I like to think about it this way: If grandpa passed away and was an avid UMD college football fan - would you bury him in a Penn State themed casket? No. To him that would be dishonorable.

To people who spend their lives trying to make a meaningful and positive impact on the earth, wouldn't we want to honor their passing in a way that aligned with their life?

I hope that you will come together to pass this bill - and give families this option to honor their deceased in a way that is meaningful to them.

Thank you, Carrie Shipton

Testimony #2 HB 1060_3_28_2023.pdfUploaded by: Catherine Bye

Position: FWA

March 28, 2023

The Honorable Melony G. Griffith, Chair Senate Finance Committee Miller Senate Office Building, 3 East Wing 11 Bladen Street Annapolis, MD 21401

HB 1060

RE: HB 1060 – Cremation - Natural Organic Reduction Regulation: Support - Favorable with Amendments

Dear Chair Griffith:

I write to you to urge your favorable report on HB 1060 – Cremation – Natural Organic Reduction. As a resident of Dorchester County, I am increasingly concerned with the rising cremation rate in Maryland, which both uses fossil fuels and releases carbon dioxide into our atmosphere. The cremation rate is in Maryland is projected to reach 75% by the year 2040. Currently, more than half of the 50,000 residents who die in Maryland each year choose fire cremation – for each Maryland cremation, more than 500 pounds of carbon is released into the atmosphere that our children breathe. We must legalize greener end-of-life options like Natural Organic Reduction. Natural Organic Reduction is a safe alternative with years of research behind it. I work hard to live sustainably, and I believe I should have the choice to die sustainably too.

Please vote YES on HB 1060.

Thank you,

Catherine Bye 5301 Ross Neck Road Cambridge, MD 21613 410-221-7734

Eric Geshekter HB1060 testimony_March_28_2023.pdf Uploaded by: Eric Geshekter

Position: FWA

Dear Maryland Finance Committee,

I am currently a DC resident and am very supportive of HB1060 for a number of reasons. First, I live in DC and there are currently no options for Natural Organic Reduction in area within a reasonable amount of time. Having NOR as an option would be just that for loved ones, another option. Although there are several options for fire cremation in the Maryland, I am concerned with the amount of carbon being released into the air and the effects on our environment. Living so close to the Maryland border, I know traditional cremation is also affecting DC. As adult I am doing things for the environment I would have never done as a child nor my parents.

Raising children who are being brought up in a rapidly changing environment appears to be something that is now landing squarely on their shoulders for action. NOR is not only a very green option for our environment, but for those adults and children today who are doing everything they can to find ways to preserve mother earth. Maryland has a chance to inject change in a business which in need of change. Vote YES on HB1060 and give change a chance.

Sincerely,

Eric Geshekter

Washington, DC resident

HB1060 copy.pdfUploaded by: Jill McCulloch Position: FWA

March 28, 2023

The Honorable Melony G. Griffith, Chair Senate Finance Committee Miller Senate Office Building, 3 East Wing 11 Bladen Street Annapolis, MD 21401 **HB 1060**

RE: HB 1060 – Cremation - Natural Organic Reduction Regulation: Support - Favorable with Amendments

Dear Chair Griffith:

I write to you to urge your favorable report on HB 1060 – Cremation – Natural Organic Reduction. As a resident of Montgomery County, I am increasingly concerned with the rising cremation rate in Maryland, which both uses fossil fuels and releases carbon dioxide into our atmosphere. It is time to make greener funeral choices available. Natural Organic Reduction is a safe alternative with years of research behind it. I work hard to live sustainably, and I believe I should have the choice to die sustainably too.

Please vote YES on HB 1060.

Thank you,

Jill McCulloch 6800 Brennon Ln Chevy Chase, MD 20815 (202)486-5552

Testimony of John Hanson on HB 1060.pdf Uploaded by: John Hanson

Position: FWA

March 28, 2023

The Honorable Melony G. Griffith, Chair Senate Finance Committee Miller Senate Office Building, 3 East Wing 11 Bladen Street Annapolis, MD 21401

RE: Please make my end-of-life choices sustainable with a favorable report on HB 1060 – Cremation - Natural Organic Reduction

Dear Chair Griffith:

I have lived in Jefferson, Maryland for nearly 50 years, and in communicating my end-of-life wishes to my family I have always asked to be composted – I am thrilled that we may be close to a world in which my family can realistically carry out that wish here in Maryland. I write to urge your favorable report on HB 1060 – Cremation – Natural Organic Reduction. Cremation uses fossil fuels and releases carbon dioxide into our atmosphere, and embalming fluid is toxic - it is time to make greener funeral choices available. Natural Organic Reduction is a safe alternative with years of research behind it. We live in a solar powered and heated home with a composting toilet, drive an electric car, grow much of our own food, and have worked hard to live sustainably. I believe I should have the choice to die sustainably too.

Please vote YES on HB 1060.

Thank you,

John Hanson 3205 Poffenberger Rd. Jefferson MD 21755 (301)371-9172

Cc: Anne Kaiser
Barrie S. Ciliberti
April Fleming Miller
Jesse T. Pippy

Testimony Jonathan Lechter .pdfUploaded by: Jonathan Lechter

March 28, 2023

The Honorable Melony G. Griffith, Chair Senate Finance Committee Miller Senate Office Building, 3 East Wing 11 Bladen Street Annapolis, MD 21401

HB 1060

RE: HB 1060 – Cremation - Natural Organic Reduction Regulation: Support - Favorable with Amendments

Dear Chair Griffith:

I have long been concerned that embalming fluid that leaks into our soil during with the embalming process to prepare a body for burial. I'm also concerned about the funeral workers who handle known carcinogens regularly. Traditional burial takes up permanent land resources and requires that our land be filled with metal and wood for caskets and cement and steel for grave liners. Cremation releases carbon dioxide as well as other toxins like mercury into our air and uses fossil fuels. When I die, I'd like to have a real option, to improve my water and soil rather than harm it. I implore you to give a favorable report on HB 1060. Please vote YES for Natural Organic Reduction. I hope to have this option when my times comes.

Thank you,

Jonathan Lechter 11306 Rokeby Ave Garrett Park MD 20896

Written.pdfUploaded by: Jonathan Tipton

The Honorable Melony G. Griffith, Chair

Senate Finance Committee

Miller Senate Office Building, 3 East Wing

11 Bladen Street

Annapolis, MD 21401

HB 1060

RE: HB 1060 – Cremation - Natural Organic Reduction

Regulation: Support - Favorable with Amendments

Dear Chair Griffith:

I am a long-term DC resident who wants to be cremated upon death; however, as you know, there are no crematories in DC and the nearest state for me to be cremated in is Maryland. The last thing I would like to be remembered for is polluting the beautiful skies of Maryland with my burning ashes (traditional crematoriums).

I urge you to move this bill forward so that we can have a greener alternative to fire cremation for all the people in Maryland and the surrounding areas.

Please vote YES on HB 1060.

Thank you,

Jonathan Tipton

4316 46th St NW Washington DC 20016

(817) 504 3523

Maryland Senate Statement 2023.pdf Uploaded by: Katrina Spade



Maryland Senate Statement March 28, 2023

My name is Katrina Spade, CEO of Recompose. We strongly support HB 1060. Recompose is a licensed funeral home based in Seattle, WA, that provides natural organic reduction to the public.

Natural organic reduction has been proven safe and effective and has been used in agricultural settings for over three decades. As a human death care option, it is already legal in six states including California and New York. It has been practiced safely since 2020 in Washington State.

Natural organic reduction provides significant savings in carbon emissions over conventional funeral options, using just 1/8 the energy of cremation and saving over a metric ton of carbon dioxide per person who chooses it.

I ask for your aye vote. Thank you.

Composting bill HB1060.pdf Uploaded by: Laura Beers Position: FWA

Laura Beers 6216 Dunrobbin Dr Bethesda, MD 20816

To Whom It May Concern,

I am writing as a citizen of Montgomery County, MD, to express my support of HB1060, the "human composting" bill, with proposed amendments.

I believe that human composting is an ethical and environmental alterative to cremation or standard burial which should be legalized in our state.

Yours sincerely, Laura Beers

FWA_HB1060_Buerkle_March_28_2023.pdf Uploaded by: Lily Buerkle

Green Legacy Brands LLC

8403 Colesville Road, Suite 1100 Silver Spring, Maryland 20910 (301) 264-7959

HB 1060

March 28, 2023

The Honorable Melony G. Griffith, Chair Senate Finance Committee Miller Senate Office Building, 3 East Wing 11 Bladen Street Annapolis, MD 21401

RE: HB 1060 – Cremation - Natural Organic Reduction Regulation: Support - Favorable with Amendments

Dear Chair Griffith:

I am writing to register my enthusiastic support with amendments for *HB 1060*, *Cremation* – *Natural Organic Reduction* – *Regulation*. This legislation would authorize regulations so that Maryland funeral and crematory establishments can begin to offer natural organic reduction (NOR), a process that involves "a controlled conversion of human remains to soil." A more detailed question-and-answer sheet is attached for your convenience.

As a licensed funeral director who has worked for many years with families in Maryland, the capacity to answer a family's request with "Yes" is a big part of my passion for serving in death care. It is my professional badge of honor to "make it happen" for families with a wide range of religions and cultures, whether: it's carrying out special Coptic Christian or Catholic rituals or beyond; a daughter who wants my help washing and dressing her mother in a sari; a family who needs to sing *Más Allá Se Pase Lista*, eat tamales and drink coffee late into the night at church; or another one engaged by Nigerian Gospel music, dancing in color coordinated outfits at their father's casket. These are just some of my real-world examples that prove that our profession needs to provide a diverse community with a variety of choices.

There is one type of family that has been largely left out of available funeral practices today – and that is the "green" family – the family who wants greener funeral options. And there are many of them in the Maryland. Indeed, just several weeks ago, a funeral provider in North Carolina contacted me for help transferring a decedent from Baltimore all the way to his alkaline hydrolysis location – the closest location where the family could find that green option.

As you know, so many Marylanders revere our natural environment, the beauty of the Eastern Shore and the Chesapeake Bay. Maryland inspires many of its residents to live a life that is more sustainable. They recycle, compost and garden. They install solar

The Honorable Melony G. Griffith, Chair RE: HB 1060 – FWA March 28, 2023

panels on their house, try their best to reuse grocery bags, donate clothes, and conserve water. They try to buy local produce and meats from our farmers' markets and spend extra to pay for hybrids or EVs. And they want to die greener too.

If given a choice, people in this same community do not want to create avoidable CO2 emissions, take up space in manicured cemetery for an eternity or create the risk of chemical leachate from embalming. If given a choice, many in this State want to return to something that feels more tender, kinder, not only to themselves, but to the environment. They've seen the standard menu – fire cremation or burial – that hasn't changed much since the Civil War, and they want something else.

The way we live has changed so much in the past 50 years, but the way we die has not. Maryland can help change that with HB 1060. The bill is not about removing options — it's about adding them. For families who still want conventional death services with cremation or embalming and metal caskets and grave liners, those options should always remain. But, according to the National Funeral Directors Association, cremation rates are still growing and expected to reach above 75% by 2040 both nationwide and in Maryland. That means Maryland emissions will continue to grow unless we act.

After incorporating the amendments being offered by the bill sponsor, HB 1060 will piggy-back on Maryland's existing structure for regulating crematories — enabling both the Maryland Office of Cemetery (OCO) and State Board of Morticians and Funeral Directors (State Board) the option to create new regulations that cover NOR. Then, if the owners so desire, Maryland funeral homes and crematories would be able to add NOR as a new option for the families they serve.

At this point in my career, our team is working to launch Green Legacy, a funeral business that will focus exclusively on offering green deathcare options in the DMV. We plan to offer alkaline hydrolysis and NOR (once it becomes authorized), along with home funerals and services for what I call the "hands-on death families." Those are the growing number of families who may want to bring their loved ones back home for a vigil, to sit and sing to them, and experience the reality of loss through mindful rituals.

Thank you for the opportunity to contribute to the committee's deliberation. We urge each member of the committee to vote green on HB 1060 – not because it's about any one business; rather, because no Maryland deathcare provider can say "yes" to serving those green families until you do so.

Sincerely,

Lily Buerkle

Green Legacy, Co-Founder

GL NOR Questions and Answers (03-06-2023).pdf Uploaded by: Lily Buerkle

HB 1060 - Natural Organic Reduction — Q&A A Natural Option for Maryland Families

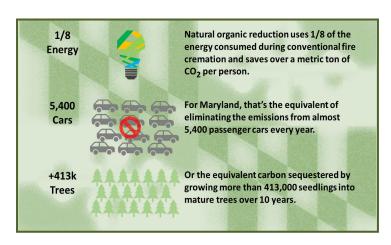
What does this legislation do? HB1060 amends current law by adding *natural organic reduction* (*NOR*) as another choice Maryland families would have after death, providing a sustainable alternative to cremation and burial. It will conform NOR to existing death care laws, enable appropriate regulation of the process and continue the tradition of giving Marylanders the right to choose the method of mortuary disposition that's best for their family.

What is natural organic reduction and how does it work? NOR gently transforms human remains into soil in 4-6 weeks. The process uses large vessels to hold human remains which are combined with straw, wood chips, and other natural materials. The decomposing process creates heat of over 131F, which kills viruses, bacteria, and pathogens, and exceeds EPA requirements for heavy metals, which are stabilized in the soil, not volatilized. The resulting soil is safe for gardens, trees and scattering.

Is this death care method being used anywhere else? Yes. Six states have now legalized the process: Washington (2019), Colorado (2021), Oregon (2021), Vermont (2022), California (2022) and New York (2022). Maryland can become the seventh.

What are the benefits of NOR?

- The primary benefit is the ability to offer consumers additional options after death.
- With significant savings in fossil fuel emissions and land use, NOR addresses the increasing demand for more sustainable alternatives. It isn't a silver bullet for climate change, but it's low-hanging fruit that sure can help.



Is there a demand for NOR? Yes.

Surveys show that 64% of Americans consistently express an interest in green burial options, indicating a need for sustainable and affordable alternatives. Even before the process was first legalized, over 400 customers prepaid a funeral home in the State of Washington in the hopes it would be allowed eventually. Since then, several new funeral homes have begun offering it to families in other states.

What is done with the soil? Much like the choices people have with cremated remains, families will choose the best place for resting the soil created in this process. They might choose to plant a tree or garden, for example, but some state regulations forbid using the soil to grow food for humans or animals. With most NOR companies, families can also opt to donate their soil to a conservation forest.

Where would NOR facilities be located? Facilities meeting state permitting and licensing requirements could be located anywhere in Maryland where the local zoning allows it.

Does it smell? The NOR process does not smell. Microorganisms present in the process break down odorous gases into water and CO2. In addition, biofilters and mechanical ventilation are used to aerate the process and ensure that no trace of odor is emitted.

Is it safe? Yes. The process kills bacteria and viruses, including COVID-19. Farmers have used mortality composting for many decades to safely dispose of deceased livestock and control odor.

Has it been tested and validated scientifically? Yes. Research at Western Carolina University and Washington State University (WSU) has demonstrated the viability of NOR as a natural method of disposition for humans, and WSU's Soil Science Department conducted a pilot study which proved the safety and efficacy of the process. Long before it was ever applied to human bodies, farmers also safely used mortality composting and universities have tested it exhaustively.

Is it suitable for every situation? No. Remains that have been embalmed are not viable candidates for NOR because the chemicals involved will delay the decomposition process. Also, NOR is not indicated in cases that involve Ebola or prion diseases. (Prion diseases are a family of rare neurodegenerative disorders that affect both humans and animals, and existing scientific research has not yet proven that prions are broken down during the NOR process.)

What happens to heavy metals like mercury? NOR helps to ensure that mercury remains stabilized in the soil, rather than being volatilized. (Volatilized mercury from cremation accounts for a significant amount of mercury released into the atmosphere.) Research completed by WSU showed that heavy metals, including arsenic, cadmium, copper, zinc, lead, and mercury, were all well under EPA limits.

What happens to pharmaceuticals? Because current funeral practices are not required to account for drug concentrations, very little is known about pharmaceutical agents in human cadavers. However, it is known that most medications are metabolized or excreted from the body within a few hours after ingestion, so concentrations in cadavers are likely low. Unlike cremation and burial, NOR breaks down many of the pharmaceuticals that do remain in the body after death. The research completed to date showed a 95% reduction of tracked pharmaceuticals.

How would regulations work under the bill? Under the sponsor's amendments that were developed in response to the Maryland State Board of Morticians and Funeral Directors (BOMFD) and the Maryland Office of Cemetery Oversight (OCO), both agencies would share regulatory jurisdiction over licensing NOR in the same way they each currently regulate crematories. Within their respective scopes of authority, BOMFD and OCO would be empowered to promulgate identical regulations, issue licenses, establish minimum training requirements, inspect and enforce the laws for any location where NOR is performed.

What is the impact to the existing funeral industry? Maryland's funeral industry will have the ability to offer NOR as desired. With growing consumer interest in sustainable alternatives, this legislation simply provides another option for existing businesses to expand their scope of services (or not).

Are any Maryland funeral homes planning to offer NOR? Yes. Other states projected 5-10 eventual providers, and Green Legacy is a local start up co-founded by Lily Buerkle, a licensed mortician supporting HB 1060. The company is looking for commercial space now to open a full-service funeral home that will earn Green Burial Council certification. After licensing, Green Legacy says it will become Maryland's first provider to specialize in Aquamation-Alkaline Hydrolysis and deathcare that is "radically compassionate," and her team also plans to offer NOR eventually.

Will there be any fiscal impact? Although legislative staff in most of the other states where NOR has been adopted project the fiscal impact to be "minimal," "negligible," or "none," the impact in Maryland has not been scored by DLS as of this writing. The only state so far with a significant fiscal impact appears to be California, which also is the only state that has decided to regulate the NOR equipment manufacturers in addition to facilities. All of the other states project normal impacts associated with writing new regulations and updating the forms and systems that handle licensing.

Is there any value in waiting for further study or research? Why should Maryland fall behind other states? NOR has grown out from theoretical seeds of urban planning and applied science that were planted and published more than a decade ago. The concept was fertilized with research studies carried out over the past ten years. Since 2019, NOR has blossomed into accepted funerary practice – it's even featured this year by the National Association Funeral Directors (NFDA) as part of its "Virtual Cremation Success Seminar." Seven other states have adopted laws authorizing NOR because the modest change involved just gives families and funeral businesses one more choice - at the same time, eliminating the carbon emissions for families who opt in.

Contact: Lily Buerkle | <u>lily@greenlegacy.com</u> | (301) 264-7959

Green Legacy Brands LLC

8403 Colesville Road, Suite 1100, Silver Spring, Maryland 20910

HB 1060 online: https://mgaleg.maryland.gov/mgawebsite/Legislation/Details/hb1060?ys=2023RS

green burial.pdfUploaded by: Mary Murchie
Position: FWA

3/28/2023

Dear Chair Griffith:

I am a DC resident concerned with the rising cremation rates all over the DMV. There are no crematories in DC, which means that if I make the decision to cremate myself or my family members, that decision directly impacts the air of residents in Maryland, where my body is likely to be cremated. I urge you to move this bill forward so that I can have a greener alternative to fire cremation for the safety and vitality of all in the DMV.

Please vote YES on HB 1060.

Thank you, Molly Murchie 5445 30th Pl. NW, Washington, DC 20015 703-517-1276

Mike Heffner FWA HB1060.pdf Uploaded by: Michael Heffner Position: FWA

HB 1060

RE: HB 1060 - Cremation - Natural Organic Reduction -

Regulation: SUPPORT FWA

To the Finance Committee and Bill Sponsor Delegate Anne Kaiser:

I am writing to express my hope that you will support HB 1060 Cremations – Natural Organic Reduction – Regulation. Natural organic reduction (also known as human composting) is now legal in six states: Washington, Colorado, Oregon, California, Vermont, and New York and I want to help make Maryland the seventh state on this list.

My extended family has been in the traditional funeral service industry since 1970. It's not *quite* Six Feet Under, but as far as a family business goes, it's pretty darn close. They all but live above the shop. I respect and honor the cultural traditions they help honor and the transitions they facilitate—and those should remain options for those who feel drawn to them. But the chemical, carbon, and energy impact of that industry as it exists today is literally unsustainable. We need other choices—and in Maryland, we make them every day: we go out of our way to separate and recycle, invest in fully electric cars, add solar panels to our homes and businesses, incorporate rain barrels into our gardens, and walk and bike whenever and wherever we can...and more. We are an educated, aware, and sensitive population, thriving and caring for our environment while we are alive—and we are eager to have equally as sensitive and sustainable options when we die.

The success of this bill in the Maryland House is encouraging. Your support of this bill now will give us—your constituents—those choices we need in our final transitions. Please support this legislation. By doing so, you will help define Maryland's inclusive, sensitive, and sustainable position on natural organic reduction.

Please vote yes on HB 1060.

Thank you for your attention to this legislation.

Respectfully,

Mike Heffner

Natural Organic Reduction.pdf Uploaded by: Rachel Friedman

Dear Chair Griffith:

I am a DC resident concerned with the rising cremation rates all over the DMV. There are no crematories in DC, which means that if I make the decision to cremate myself or my family members, that decision directly impacts the air of residents in Maryland, where my body is likely to be cremated. I urge you to move this bill forward so that I can have a greener alternative to fire cremation for the safety and vitality of all in the DMV. Please vote YES on HB 1060. Thank you,

Rachel Friedman 3215 Mckinley St. NW Washington, DC 20015

Testimony HB 1060_3_27_2023.pdf Uploaded by: Rebecca McFall

March 28, 2023

The Honorable Melony G. Griffith, Chair Senate Finance Committee Miller Senate Office Building, 3 East Wing 11 Bladen Street Annapolis, MD 21401

HB 1060

RE: HB 1060 – Cremation - Natural Organic Reduction Regulation: Support - Favorable with Amendments

Dear Chair Griffith:

I write to you to urge your favorable report on HB 1060 – Cremation – Natural Organic Reduction. As a resident of __Chevy Chase, DC_, I am increasingly concerned with the rising cremation rate in Maryland, which both uses fossil fuels and releases carbon dioxide into our atmosphere. It is time to make greener funeral choices available. Natural Organic Reduction is a safe alternative with years of research behind it. We want a better future for our kids and that is hugely dependent on taking care of the world we live in.

Please vote YES on HB 1060.

Thank you,

Rebecca McFall 6026 Utah Ave. NW Washington, DC 20015

HB1060 letter of support.pdfUploaded by: Sharon Metcalf Position: FWA

Date: 3/28/2023

To: Maryland Delegates and Members of the Senate Finance Committee

CC: Anne Kaiser

From: Sharon Metcalf

Subject: Vote YES on HB1060 for Natural Organic Reduction

Maryland Delegates,

Please vote YES on HB1060 to provide Maryland citizens with access to NOR, a safe, sustainable and environmentally sound option.

I live in Bethesda MD and hope to have natural organic reduction (NOR) available in our state to help combat the increasing amount of carbon being released by cremation. HB 1060 would give Marylanders access to a much needed alternative green method of disposition to fire cremation or chemical embalming.

Maryland should join with New York and other states that have researched and adopted this funereal practice to offer consumers NOR as a natural and sustainable option of bodily disposition.

In partnership with Congressional Cemetery, a National Historic Landmark in Washington, DC, I recently created an outdoor sanctuary, the *Circle of Life*, as an homage to nature and natural burial. We would welcome those who choose NOR for interment such that their remains might nurture the trees that surround the cemetery and this outdoor sanctuary and gathering space.

This article in today's Washington Post clearly shows the significant and growing demand in this region for more eco-friendly of interment.

https://www.washingtonpost.com/dc-md-va/2023/03/28/green-burial-funeral-maryland-dc/

Thank you for your support of HB 1060.

Most sincerely,

Sharon Metcalf

Sharon Metcalf
3 Sangamore Court
Bethesda MD 20816
202.494.7165 (iphone)
metcalf.sharon@gmail.com

Testimony from Susan Hanson on HB 1060.pdf Uploaded by: Susan Hanson

March 28, 2023

The Honorable Melony G. Griffith, Chair Senate Finance Committee Miller Senate Office Building, 3 East Wing 11 Bladen Street Annapolis, MD 21401

RE: Please make my end-of-life choices sustainable with a favorable report on HB 1060 – Cremation - Natural Organic Reduction

Dear Chair Griffith:

As a 47-year resident of Jefferson, MD, a retired small business owner, and someone who has worked hard to preserve the rural character and environmental wellbeing of Frederick County, I am thrilled that Marylanders may soon have a greener way to die. I strongly urge your favorable report on HB 1060 – Natural Organic Reduction.

I am counting on you to make this safe option available for me and my family, as I don't want my last act on this earth to be one that pollutes it. I have made sustainable choices throughout my life, from restoring an 1810 Mill and heating it with solar power to using a composting toilet and nutrient recycling system, driving an electric car, and growing much of our own food. I believe I should have the choice to die sustainably too. With your leadership Maryland can become the 7th state to legalize Natural Organic Reduction, and Marylanders can enjoy freedom from overregulation in their end-of-life decisions.

Please vote YES on HB 1060.

Thank you,

Susan Hanson 3205 Poffenberger Rd. Jefferson MD 21755 (301)371-9172

Cc: Anne Kaiser
Barrie S. Ciliberti
April Fleming Miller
Jesse T. Pippy

March 28.pdf
Uploaded by: Tamar Lechter
Position: FWA

March 28, 2023

The Honorable Melony G. Griffith, Chair

Senate Finance Committee

Miller Senate Office Building, 3 East Wing

11 Bladen Street

Annapolis, MD 21401 HB 1060

RE: HB 1060 - Cremation - Natural Organic Reduction Regulation: Support - Favorable with Amendments

Dear Chair Griffith:

I write to you to urge your favorable report on HB 1060 – Cremation – Natural Organic Reduction. As a resident of Garrett Park, MD, I am increasingly concerned with the rising cremation rate in Maryland, which both uses fossil fuels and releases carbon dioxide into our atmosphere. It is time to make greener funeral choices available. Natural Organic Reduction is a safe alternative with years of research behind it. I work hard to live sustainably, and I believe I should have the choice to die sustainably too.

Please vote YES on HB 1060.

Thank you,

Tamar Lechter

11306 Rokeby Ave

Garrett Park, MD 20896

202-997-9151

HB 1060 - Favorable with Amendments.pdf Uploaded by: Tracy Mann

The Honorable Melony G. Griffith, Chair Senate Finance Committee Miller Senate Office Building, 3 East Wing 11 Bladen Street Annapolis, MD 21401 RE: HB 1060 - Cremation - Natural Organic F

RE: HB 1060 – Cremation - Natural Organic Reduction Regulation: Support - Favorable with Amendments

Dear Chair Griffith:

We're writing to urge your favorable report on HB 1060 – Cremation – Natural Organic Reduction. As residents of Montgomery County, we are increasingly concerned with the rising cremation rate in Maryland and the environmental hazards of this practice, which both uses fossil fuels and releases too much carbon dioxide into our atmosphere. It's the right time for us as Marylanders to join other states and legalize greener end-of-life options for those who choose. Natural Organic Reduction is a safe alternative with years of research behind it. We work hard to live sustainably for our children, and we believe our family should have the choice to die sustainably too.

Please vote YES on HB 1060.

Thank you,

Tracy and Billy Mann 3311 Cummings Lane Chevy Chase, MD 20815 202-557-9214

Maryland Catholic Conference_UNFAV_HB1060A.pdf Uploaded by: Brian Barnwell

Position: UNF



March 29, 2023

House Bill 1060

Cremations - Natural Organic Reduction - Regulation

Senate Finance Committee

Position: Unfavorable

The Maryland Catholic Conference is the public policy representative of the three (arch)dioceses serving Maryland, which together encompass over one million Marylanders. Statewide, their parishes, schools, hospitals, and numerous charities combine to form our state's second largest social service provider network, behind only our state government.

The Maryland Catholic Conference offers testimony in opposition to HB 1060. We understand the arguments in favor of this bill to legalize the natural organic reduction (NOR) of human remains. However, the NOR process reduces the human body to a disposable commodity. The practice of respectfully burying the bodies or the honoring of ashes of the deceased comports with the virtually universal norm of reverence and care towards the deceased.

NOR uses essentially the same process as a home gardening composting system: rotating the remains, maintain controlled temperatures and adding accelerating chemicals to speed up the breakdown of the body of the deceased. NOR and other processes, like alkaline hydrolysis were initially developed for the disposal of livestock, not as a means of human burial. These methods of disposal were used to lessen the possibility of disease being transmitted by the dead carcass.

Dispersing the remains in public locations, without an advisory to members of the public, risks people treading over human remains without their knowledge. The "savings" in CO2 emissions offered in support of the process is easily offset by alternative means of remembrance. A simple burial or cremation, for instance, maintains the dignity of the deceased while avoiding the potential of the public not being aware of the presence of human remains.

We urge you to consider this legislation in light of the issues we have outlined here, and to give House Bill 1060 an unfavorable report. Thank You.

MSFDA-HB 1060-2023-senate.pdf Uploaded by: James Doyle Position: UNF

Maryland State Funeral Directors Association, Inc.



14030 Connecticut Ave, PO Box 9715, Silver Spring, Maryland 20916 410-553-7706

HB 1060 (Cremations-Natural Organic Reduction-Regulation)

Position of the MD State Funeral Directors Association (MSFDA):

OPPOSED

The MSFDA does not oppose natural organic reduction, or human composting, as a choice some individuals may wish to make. However, MSFDA does oppose HB 1060 because of serious issues in the way the bill has been drafted:

1. **HB 1060, as drafted, will cause serious and substantial confusion in the disposition of bodies.** MD law specifically allows an individual the right to decide on the disposition of his own body. See, MD Code, Health Occupations Article, Sec. 7-410; Health General Article, Sec 5-. The choice of the individual must be in writing and witnessed. And the decision of the individual is legally binding under MD law.

Over the course of a year, literally hundreds, or more, individuals execute such documents indicating their choice of disposition. It is often done in a will, or in an advance directive. As indicated, those decisions are legally binding.

In most instances, the individual will simply indicate "cremation" as the method of disposition. After death, that has always been an easily understood directive in the past, but in the event HB 1060 is enacted, that will no longer be true, as this bill now defines "cremation" to also include human composting. The process of human composting, of course, is vastly different than traditional cremation, in its processes, length of time, and final results (which will result in hundreds of pounds of human soil which will need to be disposed of somewhere.)

A funeral director, presented with a document choosing "cremation" in a will or other document, will have no way of determining which of the two vastly different cremation processes were intended by the deceased. Rather than risking legal liability by simply picking one of the two options, any reasonable funeral director will refer the family to seek a court order, with its substantial costs and delay, and where the judge will no doubt be faced with the same uncertain determination of which process the decedent meant.

Thus, as drafted, HB 1060 will cause confusion, delay, and substantial additional costs to families in hundreds of cases where the decedent chooses "cremation" in a will, advance directive, or other document.

- 2. In addition, HB 869 calls for MDE to conduct a study of the potential environmental and public health consequences of all methods of disposition, including human composting, and to make appropriate recommendations. Given that human composting is a very new procedure, it would seem prudent to wait for an adequate study. With each human composting producing 500 or more pounds of human soil, MDE may very well have recommendations on limiting disposal, for example, on agricultural land, in landfills, in concentrated areas, in Chesapeake Bay Critical Areas, etc.
- 3. Any draft of a bill regarding human composting should be deferred until the above issues are resolved. Therefore, **MSFDA requests an UNFAVORABLE REPORT on HB**1060.

5 - HB 1060 (3rd) - FIN - Morticians Bd - LOC.docx Uploaded by: State of Maryland (MD)

Position: UNF



Board of Morticians and Funeral Directors

Wes Moore, Governor · Aruna Miller, Lt. Governor · Laura Herrera Scott, M.D., M.P.H., Secretary

Dr. Mark E. Bailey Board President — Nilsa M. Hairston, Executive Director 4201 Patterson Avenue, Baltimore MD 21215 Phone: 410-764-4792; Email: mdh.bomfd.maryland.gov

March 29, 2023

The Honorable Melony Griffith Chair, Senate Finance Committee 3 East Miller Senate Office Building Annapolis, MD 21401

RE: HB 1060 (3rd) – Cremations – Natural Organic Reduction – Regulation – Letter of Concern

Dear Chair Griffith and Committee Members:

The Maryland State Board of Morticians and Funeral Directors (the Board) is submitting this Letter of Concern for SB 1060 – Cremations – Natural Organic Reduction – Regulation.

While the Board does not have a position on whether Natural Organic Reduction is under its jurisdiction for licensing and disciplinary purposes, the Board has concerns regarding the bill.

The bill defines "Natural Organic Reduction" as a type of cremation rather than a separate practice. The Board is concerned that such a definition may create confusion among both practitioners and members of the public.

The Board is concerned that in order to write regulations that ensure public safety, the Board requires access to data on the impact of Natural Organic Reduction. While the Board is aware of Natural Organic Reduction as a practice, it is relatively new in the United States, which limits the amount of data available. Other governmental agencies such as the Maryland Department of the Environment are better positioned to collect and interpret data in a way that allows the Board to write regulations ensuring public safety, specifically regarding safe disposal of any waste Natural Organic Reduction creates. HB 1060 does not include the Maryland Department of the Environment in the regulatory process and the Board has no authority to order the Maryland Department of the Environment to collect or interpret data. Requiring the Board to write regulations to ensure public safety without any data on the environmental impact of Natural Organic Reduction places the Board in the position of writing regulations with incomplete information.

For these reasons, the Maryland State Board of Morticians and Funeral Directors respectfully urge an unfavorable report on HB 1060.

If you'd like to discuss this further, please contact me at markbaileybom@gmail.com or call (443) 790-0005.

Sincerely,



Dr. Mark E. Bailey

Board President

The opinion of the Board expressed in this document do not necessarily reflect that of the Department of Health or the Administration.