

A Case for Natural Burials

Presented to the City of Dover, NH Cemetery Board 12/12/2023
Representative Jessica LaMontagne

What is Green or Natural Burial?

Green burial is a way of caring for the dead with minimal environmental impact that aids in the conservation of natural resources, reduction of carbon emissions, protection of worker health, and the restoration and/or preservation of habitat.

What's a natural cemetery?

Natural burial grounds, cemeteries, and preserves all seek to bury without impediment. These cemeteries are operated by municipal governments, religious groups, individuals, and nonprofits. Natural burial cemeteries strive to provide rich experiences for families and friends amidst careful restoration and maintenance of the land and its inhabitants, both above and below ground.

Green Cemetery or Natural Burial Ground Characteristics

- No toxic embalming
- Do away with vaults
- Use of biodegradable containers, caskets, shrouds, and urns
- Discontinues herbicides, pesticides, fertilizers
- Encourages sustainable management practices
- May use GPS units or simple stone markers to mark grave sites
- May support land conservation efforts

Conservation Burial Ground

- Located on conservation easement or land trust that is permanently protected from future development
- Collect fees with burial
- Life Forest in Hillsborough is one in NH. They will plant a tree a tree to honor the deceased. They do not provide full burial, only internment of cremated or soil from Natural Organic Reduction (composting).

Hybrid Cemetery – allows vaults & also offers green burials

Who Wants a Green Burial?

- Baby Boomers!
- People from all social-economic sectors
- Eco-conscious consumers wanting to reduce greenhouse gases and build climate resiliency
- Certain spiritual or religious communities
- Many feel moved by a return to the way we have buried our loved ones for millennia, in the earth.

Why not cremation?

- Uses a lot of fossil fuels to burn a body at high temperature.
- Creates particulate air pollution at the crematorium as well as releasing mercury and other elements into the air

Top Five Reasons to Go Green in the Cemetery

1. Worker Safety by not embalming. Embalming poses health risks to the workers who do this work (8 times the leukemia risk, 3 times the ALS risk, 13 x the risk of dying early due to other diseases than the general population.
2. Protect ground water and surface water from potential contamination from embalmed bodies and lawn chemicals.
3. No vaults, lower burial depths, nor expensive coffins - this can reduce funeral expenses for families.
4. Alternative landscaping and lawn management can reduce labor costs with less frequent mowing.
5. Natural burial allows nutrients to be absorbed in the soil increasing our climate resiliency.

NH Statute & Dover Policy

Title XXVI, Chapter 289 CEMETERIES 289:2 Municipalities to Provide. – Every municipality shall provide...one or more suitable cemeteries for the interment of deceased persons...subject to such regulations as the municipality may establish.

Current Rules of Pine Hill Cemeteries require “all burials must be made in outside containers constructed of natural stone, metal, reinforced concrete, or approved synthetics thus prevents Dover citizens from having a natural burial in their own cemetery if that what they want.

Cemetery Policies

Ecological Cemeteries	Lawn Cemeteries
Use alternative, native plantings that do not require constant mowing	Require vaults to prevent cave-ins
Allow nutrients to be released and absorbed by the soil	Lawn fertilizers & pesticides (& possibly embalming fluids enter the watershed
Free up space as body and disposition containers decompose; could allow vertical placement for families over time.	Will take up urban space forever.

What can the Pine Hill Cemetery Do?

- ✓ Adopt green burial practices in the whole cemetery or just one section
- ✓ Create a green burial area in an “undeveloped” part of the cemetery
- ✓ Create new green burial section in wooded area and let it go native
- ✓ Try a new approach to mowing and lawn management
 - Mow older sections only once in late summer letting wildflowers grow, providing habitat for pollinators and birds. Just mow pathways.
 - Mow new sections less often
 - Adopt organic turf management practices as elsewhere in the city
 - Find other ways to deal with cave-ins (add compost and new native plantings

For more information, educational and certification resources:

<https://www.greenburialcouncil.org/>

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Photo by Mike Dougherty, courtesy of VTDigger

GREEN MOUNT CEMETERY NATURAL RESOURCES MANAGEMENT

Green Mount Cemetery, dedicated in 1855 as burial grounds for Montpelier and neighboring towns, was designed in the style of a “rural cemetery,” where the natural landscape is incorporated into the overall design. Since its dedication a board of cemetery commissioners has administered the cemetery in trust for the city of Montpelier, attempting to follow best practices in gravesite and grounds management, while embracing the natural beauty of the environment.

The last several years have brought new challenges to our traditional approach to land care and maintenance. The pandemic necessitated the loss of our grounds-crew workforce; climate change has spurred environmental complications, including a lack of pollinators; more and more people are opting for natural burials. All of these issues, and more, have caused us to dramatically adjust our green-space maintenance practices, beginning with a new approach to mowing the cemetery.

A new mowing philosophy

Our mowing practice is transitioning to reflect new values in land management and conservation. Less mowing encourages the growth of wildflowers, and provides habitat for butterflies, beneficial insects, and birds. Going forward, we will no longer mow the entire cemetery twice a month. Instead we will only cut the older sections (designed in 1852) in late

summer. We will mow our “new” sections (those opened in the 1940s) a minimum of three inches every two weeks. The Orchard, our natural burial section, will be mowed once in the fall (see our information flier, “Green Mount Cemetery Natural Burials,” for more information on natural burials). We will also mow all areas before winter sets in, to ensure that rodents do not find hibernation burrowing spaces. No pesticides will be used anywhere in the cemetery.

Exceptions to no-mow

The pathways and edges throughout the older sections will be mowed on a regular basis to permit walking through these historic areas. If you have a family lot in the older section that you visit regularly, please contact us and we will discuss how we can facilitate your visit.

Evaluating the success of our new practices

We anticipate that within three to five years (we have already been doing this practice for two), we will be able to properly evaluate our new approach based on the following criteria: public acceptance; lot-owner satisfaction; cost savings or reassignment of cemetery expenditures; overall plant, animal, and insect health; the impact on daily activities such as work and visitation; and other possible factors.

New assignments for the cemetery workforce

For over 35 years, the cemetery has been beautifully mowed by a workforce from the Vermont Department of Corrections who participate as part of a sentence-reduction program. If the pandemic permits the return of these crews, we will direct their attention to the many tasks that arise in our 35-acre hilly arcadia, including the restoration and cleaning of our 4,000-plus memorials; repairing sunken areas; adding low-maintenance, pollinator-friendly plants; and managing any new issues that arise.

Public input into the changes

We would love to hear your thoughts about our new practices, ideas for other approaches to natural resource management, and cemetery-related questions. We will keep track of all input and make it available to the public. We can be contacted in the following ways:

Email: cemetery@montpelier-vt.org

Office: 802-223-5352

Patrick Healy, Director, cell phone: 802-279-6957

Visit us!

Come see for yourself what a natural beauty is Green Mount. The cemetery is located at 250 State Street, overlooking the Winooski River. We are open everyday from dawn to dusk

GREEN MOUNT CEMETERY NATURAL BURIALS

Many communities around the country are employing a burial practice known as natural or green burial. Essentially, a natural burial is a way of caring for the remains of our loved ones with minimal environmental impact. Natural burials can contribute to the reduction of carbon emissions, the protection of workers' health, and the restoration and preservation of habitat.

Green Mount Cemetery has established a natural burial section, called The Orchard, where we will employ best green burial and maintenance practices, which we describe in this document. Natural burial may be available in other sections of the cemetery, pending consultation with the cemetery director.



Green Mount Natural Burial Practices

The objective of a natural burial is to compost the body in the ground as fast as naturally possible. To achieve this goal, the following practices are followed:

- *Timing:* It is crucial that burial of the body occurs as soon as possible, even during the winter months. If the family can alert the cemetery director as death becomes imminent, that information is extremely helpful. In all cases, pre-planning for a natural burial is indispensable for ensuring that families' needs are met and best burial practices are employed.
- *Body preparation:* The body is buried within a natural wood casket, a shroud, or other natural cloth covering. Please note that at times odors as well as stains on the shroud/cloth coverings may be present.
- *Body transportation:* Family/friends are expected to manage the transportation of the body to the gravesite, with the assistance of a funeral home if they have arranged for one, or on their own. Cemetery staff may not be able, and should not be counted on, to assist.
- *Grave depth:* The burial of a non-embalmed body is no shallower than 3.5 feet.

- *Lowering of body:* Once the body is delivered to the cemetery, it is crucial to place it in the grave as quickly as possible. Green Mount typically uses a wide rough-cut board (or boards) with natural-fiber rope handles that are left with the body.
- *Graveside service:* After the body is placed in the grave, graveside services can begin. Family/friends are encouraged to participate in shoveling backfill into the grave.
- *Backfill:* If the soil in a natural burial site is gravel, clay, or otherwise unsuitable for proper decay, additional soil, called backfill, will be added. Green Mount uses a mix of our own compost and sand for backfill. The family is welcome to provide additional organic material, such as compost, or complementary materials such as alfalfa pellets, which assist in jump-starting the composting process. These family-supplied materials will be added to the top of the body before backfilling. Since natural burial is so recent a practice, we do not know how much time it takes a body to fully compost and the best natural additives to place with the body to enhance that process. We will update our practices as we learn.
- *Memorialization:* In The Orchard, granite grave markers are mandatory and must be flat. Natural burials in our traditional monument sections, where upright gravestones are present, will need prior approval from the director. A new section with upright memorials for natural burials is being designed. Regardless of location, all natural burials must be marked.
- *Soil settling:* The backfill will settle as the body is composting and additional soil will be added. For winter burials, bales of hay will be placed on top to keep the soil from freezing. All graves are constantly monitored and will be filled in as needed.
- *Gravesite disturbance:* While we have not seen any disturbance caused by animals, natural burial graves are under constant observation.
- *Maintenance of graves:* In The Orchard we will be adding wildflower seeds and this section will be mowed once in the fall (see our information flier, "Green Mountain Natural Resources Management," for more information on "low-mow" practices).
- *Gravesite plantings:* Please contact the cemetery director for further information.

For more information or to schedule an appointment:

Email: cemetery@montpelier-vt.org ● Phone: 802-223-5352

More information on natural burials can be found at: <https://www.greenburialcouncil.org>

THE CORINTH VERMONT
BOARD OF CEMETERY COMMISSIONERS
BYLAWS AND REGULATIONS

Revised 9/22/2020

(Only Chapter 8 included)

8. BURIALS:

A. Burial Vaults: Vaults are required for embalmed remains but are not required for non-embalmed remains, except in areas of the East Corinth Cemetery. All vaults shall be designed in accordance with industry standards and specifications. Vaults are not required for cremation burials in any areas of town cemeteries and there is no extra fee for not using one.

B. Natural Burials:

(a) Natural Burial is a burial done without a vault and done in a sustainable way of caring for the dead that promotes decomposition of the body with minimal environmental impact. Its ecological aims are to conserve natural resources, reduce carbon emissions, protect worker health, and to restore and preserve habitat.

(b) Natural burials are allowed in all Corinth cemeteries. In the East Corinth cemetery they will be allowed only in a designated area, when it becomes available, and in all other cemeteries they will be allowed in all sold and unsold full, half, and single lots as they become available. All other Corinth Cemetery policies and procedures apply to natural burial grounds, unless other policies and procedures are inconsistent with this Section or with the purpose and intent of natural burial, in which case this Section will apply.

C. Care and Maintenance.

(a) Mowing is at the discretion of the cemetery commission. There may be single grave sites available in the Corinth corner cemetery that are minimally maintained. Fertilization, irrigation, and pesticides are prohibited in all town cemeteries.

D. Materials for Interment.

(a) All containers, shrouds, or materials used for interment must be 100% biodegradable, nontoxic, nonhazardous, and plant-derived.

(b) Decedent remains shall not be embalmed.

(c) Decedent remains may be buried in shroud or a burial container or both.

(d) Grave markers are required. Stone Markers have a maximum size of 36" long x 12" wide x 4" thick. A headstone is also permitted in the actively maintained sections, at the discretion of the cemetery commission.

E. Natural Burial Ground Procedure.

(a) Natural burial lots shall be the same size as single lots. They will be allowed in all Corinth cemeteries as space allows. In the E. Corinth cemetery there will be a designated area for natural burials, but in the other cemeteries they will be allowed on all sold and unsold lots as they become available.

(b) The digging of the burial lot grave is the responsibility of the Sexton (the digger of graves), or whoever he designates. The Sexton and or the Sexton assistants are chosen by and voted in by the Board of Cemetery Commissions. Family members and friends may be permitted to help fill in graves with the approval of the Sexton.

(c) For interment, if the body is not placed in a solid burial container, the body must be placed on a 100% biodegradable, nontoxic, nonhazardous, solid wood board, which is at least 3/4 inch thick and the same length as the body.

(d) Natural burials shall not be made unless the distance from the bottom of the outside coffin or body shall be at least three and a half ($3\frac{1}{2}$) feet below the natural surface of the ground.

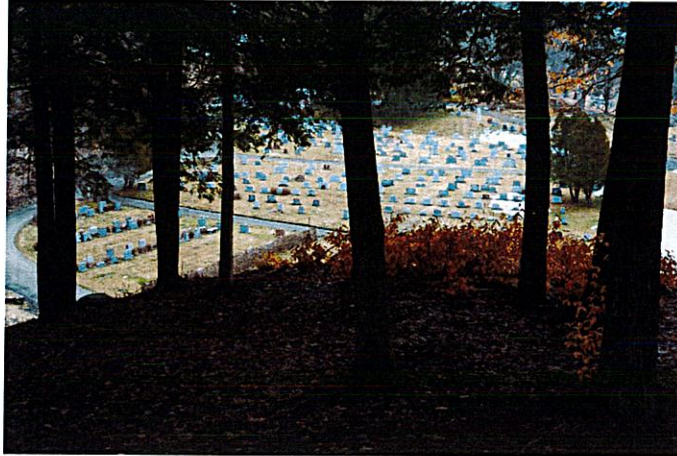
(e) It is suggested that the bottom of each gravesite be lined with a 2" to 3" thick layer of untreated wood chips, pine boughs, hay, or a combination of these materials prior to the placement of the Decedent or burial container. When closing the grave, it is suggested that the first layer of backfill be biomass consisting of grass cuttings, leaves, sticks, cut flowers, compost, or any other 100% biodegradable, nontoxic, nonhazardous, plant-derived material that is readily available and natural to the area. This is to aid in the decomposition process.

(f) There may be some minimally maintained areas in some of the town cemeteries, but in general most non- vault burials will be mowed and cared for to the same standard of the rest of the cemetery. The extra fee (\$250) is to cover the extra work involved with grading and maintenance of the site as it settles.

Natural burials were illegal in Vermont. Now they're having a resurgence

April 20, 2023

• Lexi Krupp, Vermont Public Radio

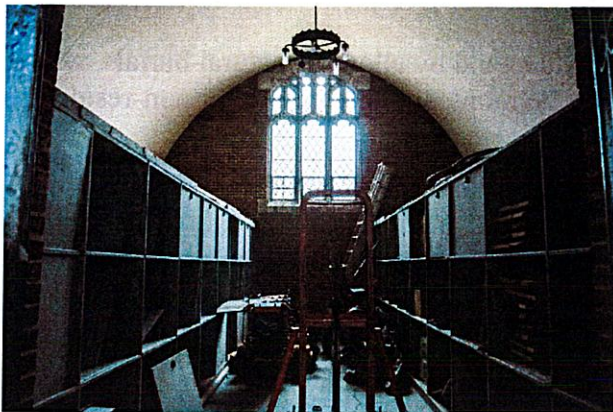


More than 70 cemeteries across New England have started offering natural burials in recent years, including Green Mount Cemetery in Montpelier. That's where bodies can decompose underground, without the use of embalming fluids or concrete vaults. At the entrance of Green Mount Cemetery in Montpelier is a white marble building. Inside were six bodies, on a visit in early April. They were being stored by a local funeral director while the ground was still frozen.

When Patrick Healy started working at the cemetery 35 years ago, the vault building was full of dozens of caskets during winter months. That's no longer the case. "The cremation rate has gone way up," he said. "So they don't need storage."

Healy is the director of the cemetery here, and president of the Vermont Cemetery Association.

He said the bodies in the vault have all been embalmed. They'll be buried at other cemeteries across the state this spring.



The winter storage vault at Green Mount Cemetery used to hold dozens of caskets at a time. That's no longer the case, as cremations have become the most common form of interment. Now, some people are considering natural burials instead.

For the past few years at Green Mount Cemetery, there's been a section of graves where none of that happens — there are no embalming fluids, or monuments, or a manicured lawn. Burials take place year-round.

The dead are wrapped in shrouds and laid to rest in wicker baskets and pine boxes. It's up a hill at the edge of a forest. The graves here are shallower than a conventional burial plot. On top of one, daffodils are just beginning to poke up. Another is covered in hay from a burial this winter.



“It was probably 10 below that night, after the burial,” Healy said. “So we covered it up with hay so that the ground never really freezes. So you can start the decomposition process.”

Letting the dead decompose is the whole idea behind this part of the cemetery. It puts nutrients back in the soil and doesn’t produce the carbon associated with conventional burials or require the energy needed for cremations — the equivalent

of powering an average-sized home for a week, according to the Cremation Association of North America.

People have been buried this way forever. It’s the custom in Jewish and Muslim burials. But the process is new for a lot of cemeteries in the U.S.

The graves in the natural burial section are 3 and a half feet deep, shallower than a conventional burial plot, where there's more oxygen, heat and microbial activity in the soil to encourage decomposition. Green Mount is adding blueberry bushes, apple trees, and wildflowers to their natural burial section. Healy said he didn't think it would take off as fast as it did.

Healy now gets a couple of emails a week from people around the state asking about how to bring natural burials to their towns.

“I don't know if it's because it's new, or if people are just wanting something very environmentally friendly,” he said. “And what we're finding is, a lot of people are being converted from, ‘Oh, I was going to be cremated. Now I just want a natural burial.’”

A lot of cemeteries in the region are working to meet demand by allowing natural burials, which cost between \$2,000 to \$3,000 in most cemeteries in Vermont, and often more for non-residents.

“Marshfield just opened one and Woodbury just opened one and so did Hardwick,” said Joe Mangan. He manages cemeteries for several Vermont towns, including five that offer natural burials.

This is a huge change from just a couple of years ago. In 2015, natural burials were only offered at five cemeteries in all of New England. Now, there are well over 70 in the region, according to the Green Burial Council.

But it’s taken some effort. “The first, biggest obstacle was that it was against the law,” said Jennifer Whitman, a former cemetery commissioner in the town of Calais, Vermont.

Before 2017, Vermont law required all burials to be five feet deep, and many individual cemeteries had bylaws requiring concrete vaults. Some still do, like in Burlington.

Many of these rules are holdovers from over a century ago.

“There was a lot of grave robbing happening at one point in history, largely to source cadavers for medical research,” said Michelle Acciavatti, a funeral director and end-of-life specialist who is set to open a conservation cemetery in Roxbury, Vermont by the end of the year.

“Vaults were originally invented as ways to protect bodies within graves,” she said.

There are more modern factors at play too, like lawn mowers. Cement vaults keep the ground from settling and becoming uneven, which is harder to mow.

“The more and more we heard that we were like, ‘So wait, the ethic that's coming first is the lawn mower, not the humans’ belief in how they want to be buried?’” said Whitman.

She was one of the leaders in the effort to change the law in Vermont. She says initially there was a lot of pushback, including from Patrick Healy at Green Mount. “I was the biggest opponent at the Statehouse,” he admitted. “And the Statehouse, just being half a mile down the road, it's easy for me to go down there.” Healy said he had all these practical concerns, like animals digging up graves, the smell from bodies, or whether the dead would actually decompose in the soil here.

None of that has ended up being an issue, he said, and there’s been an added benefit. “It's more personalized and it's more intimate,” Healy said. “It's helping, I think. ”

Janice Walrafen feels that way too. She attended the first natural burial at a cemetery in Vermont, in 2019. “It just feels more personal, like you can say goodbye to that person,” she said. “You know that they're going to still be a part of the earth, and not separate from the earth.”

She remembers her friend’s body, wrapped in fabric on a pine board, and lowered into the earth. Friends and family filled the grave in with dirt, and pine boughs, and lots of flowers. In the months after, she planted a pollinator garden on top of the grave, with lady’s mantle, echinacea, irises, asters and herbs. She still tends to the ground there now.

“I know that she's connected to that piece of Earth,” she said. “Like, her body is going to be absorbed into the ground right there.”

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