



Offering Green Burial Options in Your Hybrid Cemetery



Table of Contents

Offering Green Burial Options in Municipal Cemeteries	4
Introduction	4
Who Wants a Green Burial	5
Historical Perspective	6
Best Practices/Safety Concerns	7
Hybrid Cemetery Models	8
With Respect to Revenue	10
Building Consensus	12
Sample Bylaw and Commission Language	13
Hybrid Cemetery FAQs	14



Offering Green Burial Options in Municipal Cemeteries

Introduction

If you are a cemetery trustee, member of a cemetery or historical commission, selectman, town clerk, city registrar, town or city planner, public works superintendent, or county official in some capacity that oversees cemeteries, it is likely that you will be approached about green burial if you haven't been already.

The materials included in this packet are intended to help orient you to the facts around green burial as a starting place for considering adding options in the area under your care. Many of the materials included here are in the public domain, developed for the Green Burial Council and published on their website greenburialcouncil.org and in the book *Changing Landscapes: Exploring the growth of ethical, compassionate, and environmentally sustainable green funeral service* compiled and edited by Lee Webster for the GBC, available at Amazon.com.

Given the rapid rise in interest, many municipal officials feel unprepared to answer questions. They may be challenged by citizens with little knowledge of the concerns and responsibilities that officials, elected or otherwise, face while stewarding their town's cemeteries within the confines of budget, space, real estate values, mandatory state law, and various restrictions.

The following is also intended to address green burial from your point of view while exploring where there may be common ground that benefits both residents and town government. We understand that state and local laws and regulations vary, so please take what applies and is helpful and leave the rest.

Who Wants Green Burial?

According to a 2018 survey by the National Funeral Directors Association, *“Just over half of respondents (53.8 percent) said they would be interested in exploring green memorialization options to reduce the environmental impact of end-of-life rituals.”*

In 2007, a similar study by AARP indicated 42% of those canvassed were interested in green burial, while a study by Kates-Boylston, funeral trade magazine editors, found 43% the next year. Interestingly, 64% indicated interest in a FAMIC Harris Poll in 2015.

Also, in 2015, the Green Burial Council polled its provider green cemeteries and learned that an estimated 45% of the burials they handled would probably have been cremations, not conventional burials. The term “cremation conversion” was coined to explain the choice of natural disposition methods over cremation and its inherent environmental downsides of CO², particulates, and heavy metals, particularly mercury emissions, plus reliance on vast quantities of fossil fuel consumption.

Here are some other things gleaned from that survey:

- 73% of green cemetery operators said they had experienced growing demand since making it available
- 77% agreed that they have been profitable
- 72% indicated that they felt their families were “highly satisfied” with their experience, with all the rest saying they were just “satisfied”

What we have learned above all is that green burial cuts across all socio-economic lines. Anyone with a desire to leave the planet naturally or who enjoys nature in any capacity is a likely consumer. As Baby boomers direct their own parents’ funerals, no less their own, there is a growing swell of desire for simpler, more authentic, organic send-offs that culminate in natural burial.

And there is another factor that will influence whether they approach municipal cemeteries first: the fundamental human need for a sense of place. People want to be buried as close to “home” as possible, wherever that may be for them at any given time, and local cemeteries are far preferable to traveling many miles or to another state or region purely for the environmental benefits. Municipal hybrid cemeteries can play a vital role in strengthening community and meeting the needs of their residents by providing green space close by.

Local cemeteries can also take a greater role in building community by hosting life-affirming events, encouraging people to make a place of death a place of life again. Green burial grounds are the ideal venue for strengthening family and community bonds and educating about environmentally sensible options.

Historical Perspective

Some cemetery trustees find it difficult to imagine doing business differently, often having been involved for years in cemetery management according to bylaws written decades earlier. So much about what is legally required has become conflated with local regulations that it is not unusual to hear that vaults are required by law or that embalming is done for public health reasons, neither of which are true anywhere in the US or elsewhere in the world. Tanya Marsh, the leading cemetery historian and legal expert from Wake Forest University, has written extensively about the evolution of burial and cremation that answers the larger world questions and details types of cemetery trends up to and through the current lawn cemetery (*Cemetery Law: The Common Law of Burying Grounds in the United States*, 2015, God's Acre Publishing). To get a little perspective on what has been happening in our town and city cemeteries that relates specifically to proposals for green burial practices, here is a quick synopsis:

Prior to 1860 — Care of the dead was largely handled by families, church members, and the local birth midwife. Burial was either on private property on the farm or in church cemeteries, 4-5 feet down, in a pine casket made by the local cabinetmaker or someone handy, or a shroud made of old quilts, sheets, or other fabric. All materials were organic, and no impediments were added that would delay natural decomposition.

1860-1930 — Care of the dead migrated out of the hands of family members and into the storefronts of undertakers. The National Funeral Directors Association was formed in 1882 to promote embalming, experimented with on the southern battlefields of the Civil War, and establish a mortuary profession. The affluent began purchasing embalming for preservative reasons and increasingly for cosmetic purposes, and the middle class followed suit. It was common for the mortician to embalm the body and return it to the family home parlor for a vigil. Burial in rural areas continued as before; some cemeteries in crowded urban areas were moved out of the city limits. Early wooden vaults to assist in this effort were introduced, though they caused more safety hazards than they solved.

1930 — Wilbert Haas, a German-American concrete business owner, toured the tomb of King Tut in Egypt the year it was opened to the public, which resulted in his brainstorm idea to encase caskets in concrete vaults to make burials closer, thus increasing burial density and revenue potential. He marketed the idea as providing protection from the elements for our loved ones for eternity—and protection to the living from the germ-ridden, restless souls inside. Cemeterians embraced the practice for its orderliness and hygiene promises, even after miasma theory that had been associated with the dank air of rotting corpses seeping through soil causing a threat to the health of the living was debunked and replaced by proven germ theory. Around the same time, town and city cemetery managers began writing bylaws to include vaults as a matter of course. Undertakers nee morticians, now calling themselves funeral directors, actively carried a reputation for professionalism akin to doctors and lawyers.

1998 - present — Green burial migrated to the US from the UK in South Carolina, with Dr. Billy Campbell and his wife Kimberley starting Ramsey Creek Conservation Burial Ground. Twenty years later, more than 200 green burial cemeteries are in operation, all with one significant practice in common: burial without vaults, biodegradable materials, and absence of toxic embalming fluids, the way we started out.

What we can glean from this goes against the mythology many of us have been taught. We now know that dead bodies are not automatically infectious, smelly, or dangerous. While concrete vaults create maximum use of the land in the short term until the cemetery is filled up, make disinterment possible, and allow areas with poor soils to be utilized, natural burial allows for long term reuse of the land, maximum burial density without artifacts, sustainable management and restoration of poor soil areas. Most natural burial cemeteries disallow disinterment for any reason other than legally required exhumations for obvious reasons plus the unwritten compact between families and owners to keep a loved one's remains undisturbed for spiritual reasons. The fact that both embalming and vaults are not legally required at any governmental level speaks volumes about the false narrative of their necessity as a public health safeguard.

In fact, current practices have proven cumulatively dangerous, filling land with concrete, imported rainforest woods, bronze, steel, and other metals, toxic chemicals, and other things that create leachate and impede the natural decomposition of our organic bodies in soil that is ideal for the purpose of filtering, binding, and deactivating toxins. In studies designed to determine toxic plume from burials, it is clear that any dangers involved with burial are attributable to the things we put in the grave, with the exclusion of the body itself. [See *The Science of Green Burial*. An excerpt on soil and water is included in this packet.]

When we can move past these misunderstandings, we can put the “but we’ve always done it this way” mentality behind us and begin to be creative in finding ways to incorporate ethical, safe, environmentally responsible practices into our cemeteries.

Best Practices/Safety Concerns

For extensive practical directions specific to green burial cemetery operations that address both best practices and safety procedures, see *Opening, Closing, and Maintenance of a Green Burial Grave*. *On the Way to the Green Burial Cemetery: A Guide for Families* discusses other types of safety concerns and approaches the experience from the consumer side of things. Also see the additional FAQs assembled at the conclusion of this article. Leading cemetery operators and sextons contributed to these guides. Together they address the following general areas of concern, and much more:

- Four International health organizations’ statements on public health safety of omitting embalming
- Water and soil contamination
- Animal disturbance

- Safe procedures for carrying and lowering the deceased
- Safe procedures for digging and filling the grave
- Safe procedures for conducting graveside services
- Maintenance procedures and priorities
- Worker safety

Hybrid Cemetery Models

There are currently four distinct types of hybrid cemetery models in the US, with more creative ways to utilize active and abandoned cemeteries in the works. Each takes into consideration the need to use space strategically, respect existing graves, and leave room for successive burials to extend the life of the cemetery.

Natural Burial Section Within or Adjacent to a Conventional Cemetery

The Catholic Church has been instrumental in showing the way toward sustainable green burial in their existing cemeteries due in part to full body burial doctrine [See *To Lie Down in Green Pastures: The Catholic Church and green burial*]. By creating a dedicated space within the property in general or in an adjacent lot for vaultless burial, maintenance consistency, access points, and a host of other potential complications may be avoided. What happens in green space with regard to chemical, pest, and nuisance animal control, along with maintenance schedules and chosen best practices, stays in that area, making it possible to budget and schedule accordingly. It is also aesthetically pleasing to many who want to be buried in a less manicured or tame place with others of the same ilk. Their sense of place is different from the usual, where people choose based on geographical proximity to home. For green burial families, sense of place has as much to do with what is above ground in direct connection to the grave space as in what town the burial occurs.

Intermingled with Existing Conventional Burial Plots

Some cemeteries are burying green between existing graves, many of which have no vaults or liners. Maintenance and care therefore follows the cemetery-wide protocol. People choosing this are often satisfied to have contributed to the environment by eschewing a vault and using a biodegradable container while being buried in a place of great meaning to them. There are opening and closing challenges in this scenario, particularly in historic cemeteries whose record keeping may be unreliable, which is often the case due to flooding, fires, and other reasons for records loss or confusion.

Use of Marginal Property

Another way to utilize space in cemeteries is to identify marginal property that cannot be used for conventional burial due to sloping or rugged topography. It is also a great way to use burial to bring an aesthetic creativity to the property, introducing elements of design that enhance the experience for mourners and visitors. One cemetery in New England has identified through testing that a significant area previously thought unusable can accommodate more than forty green burial graves in its first phase alone by following a swath of land that curves through the

center of the cemetery. Another has designed a circular layout with a center fountain in an awkward corner lot area. Still another has done the work of having a soil and water resources inventory done on an area thought to be too close to wetlands and undesirable adjacent land, only to find that there is an environmentally beneficial opportunity for restoration and scenic area development that incorporates burial space. While contemplating the use or development of marginal lands, it is important to weigh cost against potential revenue, but to also weigh the benefits of public engagement at the same time.

Abandoned Cemetery Restoration

Cemeteries have an interesting legal life where abandonment is concerned. Who is to say whether a cemetery has had its identity destroyed, which is the essential legal criteria for determining an abandoned cemetery? Furthermore, it's hard for family members to understand that although their relative or ancestor may have purchased a plot, their ownership is an easement agreement or license to keep them in that space rather than ownership of the real estate itself. The process of having a cemetery deemed abandoned requires a court decision involving such terms as 'adverse possession' or 'notorious and hostile possession', neither of which is as bad as it sounds. Regardless of the complexity, these older cemeteries that predate consistent use of concrete vaults are being acquired for the purpose of restoration and burial, breathing new life into communities and remembering the interred, just as their families had hoped at the time they were buried.

With Respect to Revenue

Obviously, town officials are dedicated to responsibly ensuring the fiduciary health of their area, and cemeteries are no exception. Using land wisely and prudently is critical for thriving communities, and essential for fiscally successful cemetery balance sheets.

Some states have mandatory requirements for towns and cities to maintain active burial space for their residents, making it incumbent on selectmen, planning, zoning, cemetery, and other commissioners to plan well. It also means that when cemeteries reach capacity, the municipality is responsible for purchasing additional real estate that can accommodate burial which may or may not be in the same community. With many rural cemeteries maxing out existing space, the acquisition of real estate in desirable locations at a price the town or city can afford is becoming increasingly difficult.

Add to that the upkeep of historical and full cemeteries in addition to developing new space and the costs can add up exponentially, pinching an already strained municipal budget. In many areas of the country, abandoned cemeteries are taking their toll as they revert to municipal control and oversight once the profit has been realized by private owners, or the churches and religious institutions are no longer able to maintain them due to dwindling attendance.

Green burial plots were originally larger than standard plots to account for subsequent burials. We now know that we can bury closer to an earlier burial as long as we keep good physical and digital records and follow a rotation plan, giving each burial a chance to process before disturbing adjacent earth.

In a well-managed green burial cemetery, plots and opening and closing fees make the same demands on real estate, time, effort, and resources that conventional burials do. Charging the same price to bury without a vault as with one is fair, and contributes to keeping burial affordable for all, avoiding the dangers of elitism and selective attainability and accessibility that contributes to socio-economic inequality. Families choosing green burial will benefit from not having to purchase vaults and may find savings by providing their own burial containers or choosing biodegradable manufactured ones, significantly reducing financial pressures. Green burial is also responsible for converting some cremation candidates back to burial, who may have chosen cremation based on a wish to avoid prohibitive pricing of a full conventional funeral, reintroducing opportunities for connection through ritual associated with graveside services.

Burial plot pricing in a hybrid cemetery needs to be consistent with what each individual cemetery is charging for conventional plots for several reasons. First, real estate is real estate—people generally choose place above space. It comes down to location, and the market value of any location is driven by varying factors unique to that location, not what is going to occur on it, just like any other real estate transaction. The price of a piece of land does not change depending on whether a Victorian or a Craftsman house is going to be built on it. Likewise, it makes little sense to charge differently for a similar-sized plot in the same location. Maintenance for green burial graves is different and still necessary, so costs go toward whatever method of upkeep the

cemetery chooses to perform; revenue is used differently, not one more than the other. Cost equalizing also ensures accessibility to all, not just for those who can afford it.

The pricing differential is found in lower baseline funeral costs. Environmental advantages, family participation, and return of meaningful ritual burial practices are an added boon to families and cemeteries alike, and savvy funeral directors will see an opening for providing appropriate goods and services that will be beneficial to both consumers and providers.

Despite the rise in cremation, burial space is still needed for cremated remains, and interment is required by the Catholic Church. Common practice is to sell plots for x number of full body burials and/or x number of cremation spots. What many natural burial cemeteries are doing to maximize space use and still generate revenue is to create a smaller cremated remains space, or communal tank, or a scattering garden, with the option of recording the loved one's name on a cenotaph at the entrance to the space rather than taking up larger plots that are mostly empty. This keeps costs down while encouraging responsible disposal of remains that are dense, composed of non-biodegradable elements calcium phosphate and sodium, and can negatively affect the environment when dumped or spread on foliage.

In short, green burial in an existing cemetery can be profitable in multiple ways while also meeting personal, cultural, and financial needs.

Building Consensus

Chances are good that as a municipal or county official you have been approached by individuals in your area about providing green burial space. Those individuals are joining ranks with others to form green burial societies, alliances, conservation land trusts, nonprofits, and other groups dedicated to making green burial happen in their state or region or area. They come armed with statistics that lay out the environmental, health, land use, and cultural drawbacks of the current system and are demanding change, and it is deeply personal to them.

That said, they may not be savvy about the laws, the politics, or the realities of making these changes in their local cemeteries. They are looking to elected officials to be responsive to their requests. The potential for conflict is high, not just between the residents and officials, but neighbor to neighbor. Getting out ahead of the issues and exploring options is critical for municipal officials. So is building consensus when things are not as easy as they first seem. Since most of the following is not included in your job description, lean on those who are keen to promote the idea and let them take the lead doing the footwork.

Here are some ideas for stemming conflict and building consensus through inclusion:

- 1) Identify potential green burial spaces in your community through a feasibility study
- 2) Identify potential space with a natural resources inventory commissioned from a university or extension service
- 3) Identify space in existing cemeteries by reviewing plats and land use documents
- 4) Appoint a citizen-led committee of advocates to develop and execute a public awareness campaign
- 5) Form an ad hoc committee to design a community-based plan of proposed activities to be offered in the cemetery space, such as fun runs, dog days, yoga or tai chi, family gatherings, birdwatching, etc.
- 6) Have conversations early and often with potential property abutters
- 7) Develop budget projections that identify fiscal planning goals and possibilities
- 8) Host community forums in conjunction with interested community members to explain the law, the benefits and address concerns about green burial
- 9) Engage librarians, book store owners, movie theaters, senior centers and others to display books and host films that explain green burial
- 10) Enlist the aid of religious leaders, funeral directors, community outreach program leaders, educators, and anyone else who has a stake in the development of a green cemetery in your area
- 11) Solicit help in writing newspaper articles, warrants, bylaw language, and brochures or other materials for distribution
- 12) Tap local businesses for support, such as printers, to help with educational efforts

Sample Bylaw and Commission Language

Knowing what other hybrid cemeteries are doing is helpful, but having a prototype is even more so. Keep in mind that the examples below have been developed in the past couple of years and are still being edited and improved. For example, many cemetery officials are unaware of burial depths by state and may simply gloss over the old bylaw language not knowing that it was arbitrary policy, not law or even common sense or scientifically advisable. We advise using these examples as starting places for redesigning your cemetery bylaws but not be constrained by them when determining what best practices are for your cemetery. *[For a detailed list of what is required in your state, go to <http://www.nhfuneral.org/legal-requirements-by-state.html>]*

SAMPLES

Town of Rhinebeck Cemetery

Rhinebeck NY

NATURAL BURIAL

1. The natural designated portion of the Town of Rhinebeck's Cemetery is reserved for burial that does not use a vault (partial, inverted, or otherwise), a vault lid, concrete box, slab or partitioned liner.
2. Decedents are not to have been embalmed.
3. Burial containers are to be limited to those made from materials that are nontoxic/nonhazardous and natural/plant derived, with shrouds permissible (i.e. untreated softwoods, wool, fiber, cloth, cardboard, seagrass, bamboo, wicker, hemp, paper maché).
4. Shrouded bodies must be entirely wrapped and be supported on a solid softwood board for lowering. A minimum 1x 8-inch board, the same length of the body, is recommended. Plywood and particle support boards are not acceptable.
5. Cars are not permitted inside the Natural Burial Ground, except by permission of Cemetery personnel.
6. Pesticides are prohibited.
7. Unless a tree is deemed unsafe, unhealthy or contrary to conservation goals, all living existing trees will be left in place.
8. Pathways will be mowed.
9. All graves will be mounded and mulched and allowed to return to their natural state.
10. Grave markers are permitted, but not required. Flat natural fieldstone or quarried stone, no more than 300 inches square and 3 inches thick and indigenous to the Hudson Valley may be used as a marker. In cases where a grave marker is used for two or more adjoining plots grave markers may be larger but may not exceed 400 inches square and 3 inches thick. Stones may not be machine cut or polished. Machine cut stones hand-chiseled to look "natural" are not acceptable.
11. All plots will be marked on a survey map, the coordinates of which will also be engraved on a 3-inch round steel marker placed on each burial plot.
12. All graves are opened (machine dug) by Cemetery personnel. Family members may not dig graves. Family members are permitted to fill in graves.
13. Graves are dug to a depth of 3 1/2 feet.
14. Only one full body allowed per gravesite. One cremation burial may be included.

15. No plantings of any kind allowed. No artificial flowers or other decorations may be placed on graves. Natural wreaths and flowers are permitted. No vases. No potted plants.
16. Plots are 5x10. Half plots (for cremation burial) are 5x5.



Chesterfield Cemetery Commission

Chesterfield, MA

Vaults/grave liners; caskets; “Green” burials

Under current Massachusetts laws neither vaults/grave liners, caskets, nor embalming are required. Unless in the future required otherwise by State law, it shall be the right of the family of a deceased to decide which practices it wishes to observe. However, in the case of a “green” burial [foregoing use of a vault/grave liner and even of a casket], where ground subsidence issues and relevance to equipment access and use may be of special concern, the Cemetery Commission reserves its prerogative to restrict such burials to certain plots or a designated area of a Town cemetery as it and/or the Cemetery Superintendent may determine.



Hawley Historical Commission

Hawley, MA

Green burial, which is understood to be burial without embalming (the use of preservatives such as formaldehyde or other chemicals) and burial without a vault, will be allowed in town cemeteries. A biodegradable shroud or casket that will collapse when grade is filled will be required to maintain a level soil surface and prevent accidental punctures of graves. The HHC or the AA must be informed of green burial plans when the request for interment is made.



Heath Cemetery Commission

Heath, MA

2. 11.8.13 Green burials, which is understood to be burial without embalming (the use of preservatives such as formaldehyde or other chemicals) and burial without a vault, will be allowed in Town cemeteries. If no vault is used, a leak-proof shroud or casket that will collapse when grade is filled will be required to maintain a level soil surface and prevent accidental punctures of graves.
3. 11.8.14 The Sexton must be informed of green burial plans when the request of interment is made.

This article was written by Lee Webster for the Green Burial Council with the help of Suzanne Kelly of Rhinebeck Cemetery and author of Greening Death; Chesterfield, Hawley, and Heath, MA cemeteries; Candace Currie, formerly of Mt Auburn Cemetery; Patrick Healey,

Hybrid Cemetery FAQs

Q. Is there a universal definition of green burials?

A. The Green Burial Council provides nuanced definitions of green burial in its [Glossary of Green Burial Terms](#). These terms have been devised and evaluated by leaders in the field at all levels. In terms of certification, each level—hybrid, natural, and conservation—must meet specific standards to qualify. See [Green Burial Defined](#) for more Q&As about what constitutes green.

Q. Are hybrid areas mowed?

A. It is entirely up to the cemetery officials to determine the appropriate or desirable methods of maintaining the green burial section. Some choose to make the area consistent with the conventional area by mowing, some choose various other ways of balancing access and sustainable management with aesthetics. Keep in mind that heavy machinery will compact soil, which could impact decomposition by reducing oxygen flow and water saturation rates.

Q. How are graves laid out in a green hybrid section?

A. Plot location can be similar to conventional where families buy plots ahead of time or the decision may be made at the discretion of the sexton, depending on the cemetery's operating plan. Graves set side by side will require a rotation plan, potentially maximizing burial density in the long run. Many green burial cemeteries sell the right to be buried in a certain area but retain the ability to determine the exact location. This is particularly prevalent in woodland burial areas where tree roots, rock, ledge, water and other natural impediments may require the grave to be shifted a distance away from the original site. This also gives the cemetery the ability to prepare graves in fall for winter burial and to follow their own burial plot sequence through the area or the entire cemetery. This is made clear in the contract at the time of purchase.

Q. Are co-burials possible in a hybrid green cemetery?

A. Depending on the choices made by the operators and trustees, the burial of one full body and the cremated remains of another may be acceptable. Dual occupancy of one grave is generally not feasible, but it is up to the cemetery operators to determine.

Q. What will be expected of the hybrid cemetery employees at the time of burial?

A. Green burial services, though often more family participatory, do not differ greatly from conventional services. Funeral directors and clergy are often involved, directing and guiding the event as usual. If a professional is not involved, a family member educated by staff prior to the event should be designated to be in charge of walking patterns, protocols, and accepted behaviors. Some green burial operators are routinely on hand to manage and support the family, making sure things are tended to properly. In many cemeteries, the personal touch of the sexton or steward being present is an important part of the experience. Maintenance workers will want to fine tune caring for the area once the mourners have left.

Q. Should we be concerned with the collapsing of the grave?

A. Grave subsidence at 3.5 feet is much less likely to occur than at 5 feet. Soil and moisture

are factors, but for the most part, graves can be dug at this depth without fear of collapse. In some soils, cemetery operators choose to lay in temporary plywood supports for the walls that are removed prior to the service. Wide wooden planks set on either edge of the grave provide surer footing for those doing the lowering and will help to prevent the edges from crumbling. When the weather is especially damp, a deeper reservoir dug at one end of the grave will collect excess water, further reinforcing the integrity of the grave.

Q. How can bodies be properly prepared for burial and what is a home funeral?

A. Home funerals, which allow for families to care for a decedent and all aspects of a funeral at home, were quite common in the US up until the 1930s. Home funerals find family and friends, next of kin, or a legally designated agent retaining custody and control of the body for the time period between death and disposition (burial or cremation). This is sometimes referred to as *home vigil* or DIY funeral. A home funeral involves bathing and dressing the body and using dry ice, Techni-ice, or other cooling mechanism as a preservative; it commonly lasts 1-3 days. A *home funeral guide* may provide education and support either prior to or during this time period. It's important to care for the body using these techniques prior to burial. For more information, go to the [National Home Funeral Alliance](#).

Q. What are blended funerals?

A. Funerals that combine conventional funeral practices with home funeral and/or green burial practices; may include the use of a funeral director for certain aspects of care, such as obtaining, completing and filing paperwork or transporting the body. Families may have a home funeral without having a green burial and visa versa. Blended funerals offer families more options, especially when certain options are not available in their area. Most all GBC-approved funeral homes accommodate families wanting home funerals.

Q. What is a home burial?

A. A home burial is exactly what it sounds like—a burial on a family's property. Home burials are legal in all but one state (Arkansas), with some states stating that burials must be in established cemeteries; however, one can establish a family cemetery on one's own property by following state and local regulations. Burial in a family cemetery on private property is limited to family members only. To learn more about state by state requirements, go to [Legal Requirements by State](#).

Q. How is a grave liner different from a vault?

A. A grave liner covers the sides and top of the casket where a vault is significantly more substantial, acting as a box for the box. Both are classified as outer burial containers. Neither is required by law, though cemeteries often require them to avoid grave subsidence. Neither is permitted in a green burial cemetery of any kind, as they both impede natural decomposition and introduce non-biodegradable materials into the earth.

Q. What about inverting the outer container?

A. Called 'butterdishing', this method may allow the body to be closer to the earth on the bottom surface, but still impedes and puts non-biodegradable artifacts in the ground. It is not an acceptable alternative to going without.

Q. Since burial vaults are made from concrete, shouldn't they be considered green?

A. While the concrete and metal in vaults may be considered "natural" to some, the manufacturing and transporting of vaults uses a tremendous amount of energy and causes significant carbon

emission. In the US, vault manufacturing requires the production of 1.6 tons of reinforced concrete annually. No state or province legally requires vault purchase to implementation—individual cemeteries determine their own vault requirements.

Q. How does a shrouded body get carried to the grave?

A. Many cemeteries have a vehicle for moving shrouded and casketed bodies, including retrofitted golf carts, wagons, trailers, or other wheeled conveyances. Some families choose to conduct a processional with pall bearers, either on shoulder for a casket or with carrying handles on a shrouding board for shroud burials. (See [Opening, Closing and Maintenance of a Green Burial Grave](#))

Q. How and who lowers the body?

A. This depends on how the individual cemetery chooses to handle family participation and what mechanical devices are available. Some cemeteries continue to use excavators for digging and hydraulic machinery for lowering, while others pay employees to hand dig graves and allow the family, with direction if necessary, to lower the body themselves using shrouding boards, straps, or ropes. Sometimes family members wish to dig the grave themselves. Green burial operators should expect more family participation and be prepared with appropriate equipment—and liability waiver agreements built into their contract for services. (See [Opening, Closing and Maintenance of a Green Burial Grave](#))

Q. What protects the cemetery from liability claims for injuries incurred during carrying, digging, lowering, and closing the grave?

A. It is wise to require the next-of-kin to sign a liability waiver that indemnifies the cemetery and all of its employees from responsibility for injuries of anyone in their party during the funeral. This can be simple language included in the contract or a stand-alone agreement that is witnessed if possible. It is good practice to provide written instructions and warnings in a guidebook designed to educate the family about cemetery rules and best practices when purchasing the plot and/or arranging the burial. (See [Sample Guidebook for Hybrid Cemetery Operators](#))

Q. How deep does one place the body?

A. Burial depth differs by state. For a comprehensive list by state of this and other requirements, go to <http://www.nhfuneral.org/legal-requirements-by-state.html>. As a general rule, the ideal burial depth for optimal decomposition conditions is 3.5 – 4 feet from the bottom of the grave to the soil horizon, which also guarantees an 18-24 inch smell barrier that prevents animals, two and four legged both, from being able to smell anything. By adding the displaced soil to the top of the grave in a mound, that depth is doubled until it gradually settles.

Q. What if the body is in bad condition?

A. Included in the contract and/or guidebook should be explicit guidelines for the condition of the body when presented for burial, with the clear understanding that they will be turned away if those conditions are not met. Many families hire funeral directors for body preparation so it would be the professional's job to repair any damage or rectify any issues. If the family is in charge, bodies will most likely be coming for burial in a short enough period of time that these scenarios are unlikely, but if there were a problem, it would be their responsibility to address it by whatever means necessary. (See [Sample Guidebook](#))

Q. Won't wild animals dig up corpses?

A. No. Burials occur 3.5 feet under the ground with, at minimum, an 18-inch smell barrier. Animals are much more interested in living prey above ground than in working that hard. We're just not that delicious. (See [Real Answers to Questions Real People Ask](#))

Q. Won't we be able to smell them?

A. No. Same principles apply. And remember this from 5th grade science? Humans have a dismal sense of smell compared to animals. If they can't smell bodies, we surely won't be able to either. Wild boar are the most deep-digging of all wildlife and they typically max out at 12 inches. (See [Real Answers to Questions Real People Ask](#))

Q. Do green burials contaminate the water table or drinking water?

A. No. With burials at 3.5 feet deep, there is no danger of contaminating potable water that is found about 75 feet below the surface. Mandatory setbacks from known water sources also ensure that surface water is not at risk. (See [The Science Behind Green Burial](#))

Q. Do unembalmed bodies pollute the ground with chemo or other drugs?

A. Soil is the best natural filter there is, binding organic compounds and making them unable to travel. Microorganisms in the soil break down any chemical compounds that remain in the body. We lose more toxic chemicals during a day of living than a whole body will decomposing. A 2018 Recompose study done by the University of Washington found that chemicals, heavy metals, and other potential biochemical concerns met or exceeded EPA levels by a significant margin. A recent study found dangerous levels of radiopharmaceuticals in crematories, endangering workers. Additionally, embalming does not remove toxins from anywhere in the body except the fluids that are removed during the process.

Q. How long does it take for a body to completely decompose?

A. Depending on soil type, oxygen availability, and moisture present, it takes on average 6 weeks to lose the majority of soft tissue through moisture absorption by the soil, and up to 2 years for complete decomposition. It may take up to twenty years for bones to absorb in moist soils. (See [The Science Behind Green Burial](#))

Q. What soil conditions are the most favorable for green burial?

A. Well drained soils with some clay content to absorb organic compounds, and an active biological presence of bacteria are ideal for promoting efficient decomposition. This allows for aerobic decay, followed by anaerobic decay, resulting in rich soils high in nitrogen content and organic compounds. (See [The Science Behind Green Burial](#))

Q. Can bodies be buried in winter?

A. Depending on frost levels and previous preparation of the gravesite, burial in winter is feasible. Various methods are available for snow removal and thawing ground in cold climates, including coal fires, use of heaters, and thermal blankets. Often digging graves ahead of time and filling them with straw, compost, or other organic material and then capping it for easy removal at need works well. (See [Opening, Closing and Maintenance of a Green Burial Grave](#))

Q. What is done in the winter time if the cemetery is closed?

A. Burials in cemeteries that choose not to bury in winter may have systems and facilities

that house bodies until spring burial. All bodies respond well to being kept cool for the time needed, whether in a mausoleum, below grade facility, or other means of consistent cool temperatures. (See [Opening, Closing and Maintenance of a Green Burial Grave](#))

Q. How does one mark the actual burial spot?

A. Ideally, graves are marked by GPS, but these systems can be costly. Corner markers made of stone are acceptable, as are flat markers at the head. Metal spikes could be buried near the surface to allow a metal detector to locate the perimeter of the grave, a more cost-effective and durable method, depending on the metal used. Some other type of physical marker is possible as well, such as native plants, trees or shrubs, or a plain or engraved fieldstone.

Q. What about memorialization?

A. Green burial sections do not allow upright monuments. Instead, a flat marker, usually made of native stone, is at the head. Using concrete to set stones is frowned upon in a green section, as concrete has its own significant environmental downsides. Flat markers make finding the grave and mowing the area relatively easy. Maintenance consists of removing overgrowth, if wished. Some cemeteries choose to have no physical markers yet include the person's name and dates on a central cenotaph at the entrance. Some cemeteries allow installation art pieces situated throughout the cemetery.

Q. How are vaultless burials disinterred?

A. Families are asked to sign a contract stating that they understand that their family member will not be disinterred unless legally ordered to do so by the State, and that the family will be responsible for any costs not born by the State should this be ordered. Good records and physical indicators of the perimeter are critical, though the shorter burial depth and proper preparation of the grave with evergreen boughs, compost, or other organic material may provide a soil roadmap.

Q. What about grave robbing?

A. Grave robbing as a way to make extra cash by providing cadavers for medical study ended by the early 1900's. Body donations now provide plenty for a variety of scientific research. Given the superstitions ingrained in us, plus the significant repercussions for violating anti-desecration laws, grave robbing has not been reported in decades in any cemetery, no less a green burial one. Additionally, if the grave is 3.5 -4 feet deep and the displaced soil is mounded above by 3-4 feet, it's highly unlikely that anyone is going to bother and mess. By the time the body has decomposed and it's down to bones, the grave may be pretty well blended into the environment. If concerned, consider locating the green burial area nearer a central location instead of the periphery.

Q. What do green burial plots cost?

A. Green burial plots need not be different from conventional plot pricing. Although there is maintenance for both, it is different, not necessarily more or less intensive. In fact, not having to haul around heavy equipment, spread herbicides, pesticides, and fertilizers, mow and trim, or clean and repair headstones could mean big savings on perpetual care. What green burial families are paying for is the same thing anyone else is: real estate in a specific location. Whatever the going rate is in your cemetery or general region for a plot should apply universally.

Q. Do green cemeteries reuse burial plots?

A. There are no laws against reusing a plot. In many countries, graves are routinely “rented” and refilled at a later date, often removing the bones to an ossuary. Green burial cemeteries have the ability to reuse ground space in the future if desired.

Q. Can cremated remains be scattered in green burial cemeteries?

A. Because of the density and nonbiodegradable content of cremated remains, many green burial cemeteries do not allow scattering. Cremated remains consist of calcium phosphate and sodium and are heavy, apt to smother foliage on the surface. Underground cremated remains create what is essentially a nutrient-deficient salt lick that has no environmental benefits.

Q. What does it mean if a cemetery is Green Burial Council certified?

A. GBC certification allows consumers to be able to distinguish between the three types of cemeteries and understand that each has a different set of standards. It requires cemetery operators commit to a certain degree of transparency, accountability and third party oversight. And it prevents future owners from going back on whatever ecological or aesthetic promises have been made in the past, from limitations to burial density that protect a local ecosystem to prohibitions against the use of monuments that would negatively impact views. For more information on certifying with the GBC, go to [Why Certification Matters](#) and [Become Certified](#).

Q. What's wrong with embalming?

A. The Council does not think any end-of-life ritual, form of disposition, or mode of post-mortem preparation is "wrong". We are simply advocating for green services and products that help to minimize the environmental impact of our last acts. Embalming fluid is usually comprised of the carcinogen chemical formaldehyde, which has been proven to pose health risks in funeral homes. A [study by the National Cancer Institute released in late 2009](#) revealed that funeral directors have a much higher incidence of myeloid leukemia. Another study completed in 2015 by the [Journal of Neurology, Neurosurgery & Psychiatry](#) indicates a three times higher incidence of ALS, Lou Gherig's Disease, than in the general public. And the National Funeral Directors Association recently published NFDA Environmental Compliance officer Carol Lynn Green's opinion piece [Excising a Health Risk](#) where she predicts the end to embalming for safety reasons.

Q. What about essential oils and green embalming fluid?

A. Fortunately, there are now several formaldehyde-free embalming fluids, including one made entirely of nontoxic and biodegradable essential oils, which recently earned the GBC seal of approval. The sanitation and preservation of a decedent can almost always take place without the use of chemicals, as is done in just about every nation in the world. To find a green embalmer, go to [Funeral Home Providers](#) to locate a certified funeral director near you, or go to [Product Providers](#) to inquire of a product manufacturer.

Q. How do I know that a particular product is suitable for a green burial?

A. The GBC believes a casket, urn, or shroud is suitable for a green burial if it is made from materials and substances that are nontoxic and readily biodegradable. We also require that these products not be made from materials that are harvested in a manner that

unnecessarily destroys habitat. See [Product Providers](#) before purchasing any green funeral product.

Q. Doesn't cremation create a lot of pollution?

A. Cremation uses far fewer resources than almost any other disposition option but it certainly has an environmental impact. Cremation burns fossil fuels, and some older cremation facilities can use significantly more energy compared to newer ones. Mercury is also emitted when a person with dental amalgam fillings is cremated, but filtration devices that can fully mitigate mercury pollution have not been invented yet. While no standards yet exist that allow consumers to determine which cremation retorts produce the most pollution and carbon emissions, there are several things that can be done to offset the carbon footprint of cremation, such as recycling medical parts, making a contribution to a carbon fund, or supporting ocean reef regrowth.

Q. Why don't you certify cremation disposition programs?

A. While a cremation disposition program may provide benefit by setting ecologically responsible standards for memorial reefs and scattering grounds, the amount of resources and effort required to responsibly establish and manage such programs come at the cost of utilizing resources to further the organization's main objectives: to encourage environmentally sustainable deathcare through its funeral home and product compliance program, and to preserve natural areas through green burial via its burial compliance program. Accordingly, we currently do not have a cremation disposition certification program.

For more information, be sure to read these GBC publications and more, available at [greenburialcouncil.org>education>recommended_reading](https://greenburialcouncil.org/education/recommended_reading)

Basic Tenets for Green Burial Cemeteries

Grave Science Soil and Water

Start-up Tips for Green Burial Cemetery Operators

Opening, Closing, and Maintenance of a Green Burial Grave

On the Way to the Green Burial Cemetery: A Guide for Families