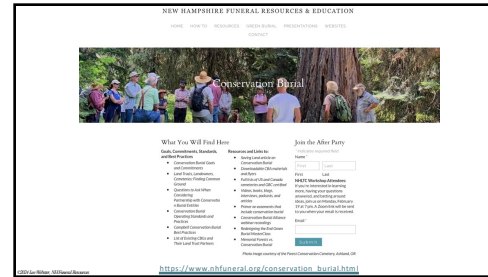




1



2

What We're Talking About Today (and what we're not)

Cremation: Industrialized, Incomplete Processes	Natural Burial: Complete Process
<ul style="list-style-type: none"> Flame cremation Alkaline hydrolysis <ul style="list-style-type: none"> No regulation re: disposal Natural organic reduction <ul style="list-style-type: none"> Uses intensive irrigation bulking agents: alfalfa, straw, wood chips No agreements on material makeup and title No regulation re: transporting or disposal 	<ul style="list-style-type: none"> Unimpeded full body earth burial Burial at 3.5 - 4 feet <ul style="list-style-type: none"> No concrete, plastic, fiberglass vaults No non-biodegradable containers No embalming chemicals

3

Environmental Goals

- Saving, restoring, and stewarding land
- Supporting grant and wildlife communities
- Reducing death-related carbon release; sequestering 25 lbs. carbon pp, plus nitrogen, phosphorus, potassium
- Highlighting conservation burial as a climate resiliency strategy
- Responding to projected migratory patterns due to water scarcity, flooding, and rising heat

4

Social and Cultural Goals

- Supporting human communities
- Engaging people with the land
- Enhancing emotional investment in nature
- Diversifying community activity on the land
- Furthering social and environmental justice
- Addressing funeral poverty



5

Engaging Community


- Nature walks
- Birdwatching
- Meditation
- Educational events
- Musical programs
- Historical programs
- Wildflower identification
- Life cycle and family gatherings
- Goat or dog yoga



6

Green Burial Council Standards for Conservation

- All certification standards for all levels apply
- 400 burials per acre max in 1st cohort
- 20 acres, or 5 contiguous to protected land
- Deed restriction, conservation easement, other binding and irrevocable agreement
- Guaranteed preservation



7

Conservation Burial Best Practices


- Affordability
- Availability
- Botanical Baseline/Ongoing Botanical Monitoring
- Care of the Grounds
- Easement/Deed Restriction
- Land Selection
- Layout of Internal Transportation Plan
- Limiting Direct and Indirect Impacts on Soil and Vegetation When Grave Siting
- Naturalness/Sensitivity/Beauty
- Operations and Management
- Position in Landscape
- Preservation and Stewardship
- Site Planning
- Surveys/Other Information
- Restoration/Maintenance Plan
- Tips and Tasks
- Visitor Management Service

Download Best Practices and Questions for CBGs and for Landowners Docs on Conservation Burial Webpage

8

Green Build Council Cemetery Best Practices Version 1.000	
Best Practices	
1.	Consider zoning to include a range of affordable options and that meets the needs of any funding plan that supports land conservation and community activities.
2.	Maintain healthy ongoing relationships with key community figures, including local business representatives, local officials, professionals, community groups.
3.	Ensure that any decisions that change the original agreement, easement, or compact do not directly or indirectly benefit individual or groups financially.
4.	Design infrastructure to maintain comfort, convenience, and safety for workers and visitors while minimizing potential damaging impact to the land (parking lots, bathrooms, visitor center, chapel, etc.)
5.	Develop plans for staking trails, burials, bridges, and grass that reduce negative impact on existing sensitive vegetation and take into account water run off, wildlife corridors, multiple access, or other considerations.
6.	Develop plans for drainage, erosion control, both on the grounds themselves and elsewhere, including the installation of positive erosion control and watering off (prevent) potential damage to the existing public. Define visitor capacity and monitor trends to establish patterns for future planning needs.
7.	Use renewable and local materials that minimize impact of fuel usage, gas, electricity, water usage, and ecological impact.
8.	Provide meals and comfort with the appropriate to participate in the burial and that address, in keeping with state law and with DMC standards, consider providing multiple uses of burial, including use for children.
9.	Develop a Transition Plan for Burial that includes: staff and long-term projects including maintenance, recreation, and goals. Develop a plan for providing or changing the plan as identified in the original agreement for natural burials and traditional plan burials by the site. Address how the original agreement addresses other needs that affect a plan management plan for handling burials and needs outlined on the map or annual meeting plan and other plan of burial and interment, burial, burial, and other rights to return to the land and other rights.
10.	Develop a set of financial metrics, such as operating and maintenance costs.
11.	Ensure a consistent system to be signed by visitors at the entrance that includes your cemetery from liability for accidents, incidents, Acts of God, etc.
12.	Establish a Cemetery Director's Manual for families and visitors that outlines appropriate behavior and expectations in the cemetery, including safety protocols and policies, such as grave donations, non-discrimination, gun policy, etc.
13.	Establish a Cemetery Director's Manual for families and visitors that outlines appropriate behavior and expectations in the cemetery, including safety protocols and policies, such as grave donations, non-discrimination, gun policy, etc.
14.	Publicly post a list of scheduled activities managed in the cemetery, such as educational presentations and lectures, guided nature walks, community events, and social events such as lectures, meetings, etc.
15.	Obtain DMC certification for any burial home that operates on the premises.

9



Property Rights and Perpetuity in Cemeteries


Two kinds of owners

- Consumers (fee owners) purchase the right to interment at the place stated in their deed
- The cemetery owns the land, including the soil
- Contracts (deed purchases) specify responsibilities and rights of both parties

Protective covenants

- Right of sepulchre "undisturbed repose"
- Cemetery operations "forever or indefinitely long duration or existence"
- Conservation easements

10



Burial Density and Sustainability

- Redefining grave space
- Deep time contexts over 300 or 500 years
- Higher burial density = increased carrying capacity = sustainability

11



The Law: Burial Rights in the US

- The federal government in the US does not oversee cemetery operations
- State law does not oversee day-to-day cemetery operations beyond licensing
- In NH, nonprofit boards, elected municipal officials, elected religious society leaders make their own cemetery rules and regulations, bylaws, or ordinances locally (no for-profit public cemeteries allowed)

12

NH Organizational Requirements and Funding

- 501c3 for accepting donations for educational events in addition to burials; charitable activities
- 501c13 for cemetery organization and reporting for those acting as cemeteries only
- No endowment required by the State of NH
- Burial fees shared with land trust
- Event fees shared with land trust
- Donations



13

Nonprofit and Land Trust Partnership

Nonprofit manages cemetery operations


- Conduct burials, community gatherings
- Hosts educational, recreational activities
- Files IRS and Charitable Trust Foundation documentation

Land trust manages conservation protections and plans

- Negotiates easement
- Executes conservation plans
- Monitors and defends boundaries

Collaborative


- Site design
- Educational and recreational programming
- Restoration projects



14

Active Land Trust Entities & Partners

- **Allegheny Conservation Trust** - Prairie Creek, Gettysburg, PA
- **Asa River Association & Triangle Land Conservancy** - Shelton, Cedar Grove, NC
- **Conserving Carolina** - Carolina Memorial, Wake, NC
- **The Wilderness Center** - Fossilized Forests, Wilson, GA
- **Slackley Conservancy** - Interhatched, Trinity, FL (pending)
- **Pittsford Chase Conservancy** - Killingburg Nature Preserve, Gardiner, OH
- **The Nature Conservancy** - Natural Conservations, Nashville, TN
- **Pasadena Parks** - Pasadena Natural Burial, Longview, VA
- **Restonick Land Trust** - Restonick Hill, Waltham, MA
- **Upland Keeper** - Restonick Creek, Westminister, SC
- **Sacred Earth Foundation** - White Eagle, Galena, WA
- **Wildlife Conservation Center** - Oldham Circle, Houston, TX
- **Greater Arlington-Washington County** - Sunnyside Park, Winchester, MA, MD
- **Andover Land Trust** - Valley Conservation Conservancy, MA TBD
- **Coastal Prairie Conservancy** - Nature's Burial, Houston, TX, TBD



15

Conservation Burial in the US: A Checklist

Conservation Entity	Location	Land Trust Partner	Trust Process	Open for Burial	Adjacent Private Land	Operating as	Notes/Comments
Allegheny Conservation Trust	PA	NatureLand Trust	Yes	Yes	Medium OH Conservation Area	501(c)(3)	• Nonprofit organization • Cemetery plan management • Conservation easement acquisition
Asa River Association & Triangle Land Conservancy	NC	Earth Action Association and Triangle Land Conservancy	Yes	Yes		501(c)(3)	• Nonprofit organization • Cemetery plan management • Conservation easement acquisition
Conserving Carolina	NC	Conserving Carolina	Yes	Yes		501(c)(3)	• Nonprofit organization • Cemetery plan management • Conservation easement acquisition
Interhatched	FL	The Wilderness Center	Yes	Yes	Yes (The Wilderness Center)	501(c)(3)	• Nonprofit organization • Cemetery plan management • Conservation easement acquisition
Killingburg Nature Preserve	OH	Pittsford Chase Conservancy	Yes	Yes	Adjacent Private Land (Pittsford Chase Conservancy)	501(c)(3)	• Cemetery plan management • Conservation easement acquisition
Longview Natural Burial	VA	Pasadena Parks	Yes	Yes	Large Private Land (Conservancy)	501(c)(3)	• Cemetery plan management • Conservation easement acquisition
NatureLand Trust	PA	Allegheny Conservation Trust	Yes	Yes	Large Private Land (Allegheny Conservation Trust)	501(c)(3)	• Cemetery plan management • Conservation easement acquisition
Restonick Hill	MA	Upland Keeper	Yes	Yes	Large Private Land (Upland Keeper)	501(c)(3)	• Cemetery plan management • Conservation easement acquisition
Sacred Earth Foundation	WA	Wildlife Conservation Center	Yes	Yes	Large Private Land (Wildlife Conservation Center)	501(c)(3)	• Cemetery plan management • Conservation easement acquisition
Sunnyside Park	MD	Greater Arlington-Washington County	Yes	Yes	Large Private Land (Greater Arlington-Washington County)	501(c)(3)	• Cemetery plan management • Conservation easement acquisition
Valley Conservation Conservancy	MA	Andover Land Trust	Yes	Yes	Large Private Land (Andover Land Trust)	501(c)(3)	• Cemetery plan management • Conservation easement acquisition
White Eagle	WA	Sacred Earth Foundation	Yes	Yes	Large Private Land (Sacred Earth Foundation)	501(c)(3)	• Cemetery plan management • Conservation easement acquisition

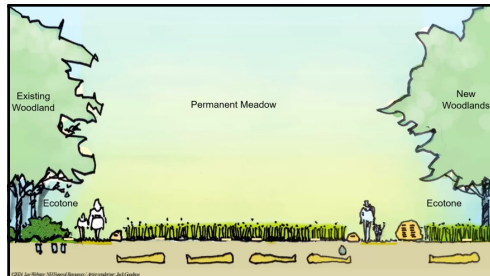
16



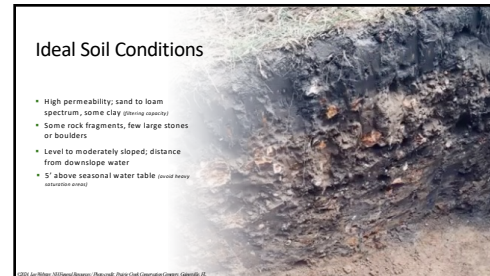
17



18




19



20

Grave Health


- Minimal disturbance of soil in and around the gravesite
- 3.5 – 4 feet deep
- Lined and blanketed with biomass
- Soils removed and restored in order
- Mound covered
- Native plantings left to naturalize



21

Soil Disturbance and Ecological Restoration

- Grave-related ground disturbance similar to pit-mound disturbance in older forests
- Results in supercharged soil
- Nidus model for forest recovery where regrowth and restoration are fostered
- Opportunity for small scale ecological restoration
— Restoration Ecologist Bill Jordan



22

Other Concerns

- Dead bodies are not hazardous waste
 - Leachate from cemetery plume caused by "leachate" not the body
 - Metal implants do not leach
 - Pathogens do not survive longer than 4 days after death except *B. anthracis*, *C. botulinum*, *S. aureus*, and *H. influenzae*
 - Unstable chemicals, other molecules bound
 - Microbial, insect, and fungal communities
- Not the same as above-ground livestock composting
- 3.5 – 4 feet burial depth creates 18-24" small barrier, ensures no animal disturbances
- Property values are not negatively affected



23

Access and Maintenance

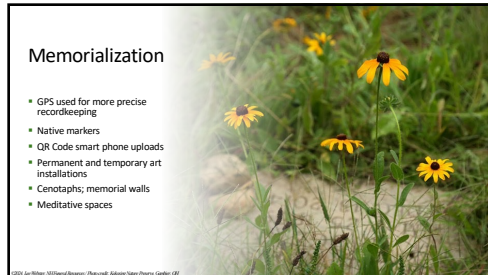
- Trail foot traffic and non-fuel operated vehicles only in burial area
- Basic trail maintenance
- Recreational, agricultural, forestry access
- Winter burial accessible



24

Memorialization

- GPS used for more precise recordkeeping
- Native markers
- QR Code smart phone uploads
- Permanent and temporary art installations
- Cenotaphs; memorial walls
- Meditative spaces



25

Private Landowner Easements



26

NH Funeral Laws of Note

290:11 Release; Transfer of Body; Liability Limited. –
 1. No dead body of a human being may be released or transferred from any residence, hospital, or other facility to any person other than a funeral director or designer, or to the next-of-kin as defined in RSA 290:16, IV, or designated agent under RSA 290:17 who shall be responsible for the completion of forms as required by RSA 290:12.

290:40a Care of Deceased Human Bodies. –
 If final disposition has not occurred within 48 hours after the funeral home obtains actual physical custody of the body, this body shall be embalmed or maintained at a temperature of under 40 degrees Fahrenheit or encased in a closed container with methods employed to prevent leakage.



27

Private Family Burial in NH

- Current landowner has legal right to bury in existing private cemetery or to establish one
- Archeological feature
- State law NH RSA 289:
 - For family members only
 - File burial/transfer permit with Town Clerk in town within 90 days of burial
 - Record on the property deed upon transfer
 - Inform Cemetery Trustees
 - Provide a public right of way
 - Comply with state setbacks for water, highways, buildings per NH RSA 289:1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100
 - Comply with local zoning ordinances



28

Landowner and Land Trust Responsibilities

Landowner

- Completes all legal filings required for private family burial
- Follows burial, access, and maintenance best practices
- Informs land trust of burials

Land Trust


- Assists in identifying appropriate burial space
- Develops burial, access, and maintenance best practices
- Monitors and defends boundaries



29

Assessing Burial Allowability on Existing Easements

- What language do you interpret to mean that burial is prohibited?
- What language do you interpret to mean that burial is an allowed activity?
- What was the intent of the original easement holders and landowners?
- Do you have any notes that indicate original land trust intent?
- Where does your decision fit with the spirit of the Land Trust Alliance's amending easements criteria?



30

LTA's Amending Easements Criteria

1. Serve the public interest; be consistent with the land trust's mission
2. Comply with state, local, and federal laws
3. Not jeopardize the land trust's tax-exempt status
4. Not result in private inurement or benefit
5. Be consistent with conservation purpose(s) and intent of the easement
6. Be consistent with intent of the grantor and funding source
7. Have a net beneficial or neutral effect on protected conservation values


—from Amending Conservation Easements 2nd Edition, Land Trust Alliance, 2017



31

Writing Private Burial into New Easements

- Reserved right to interment
 - Current landowners
 - Descendants, relatives
 - Future owners
- Process for selecting location
 - Follow current state setbacks and right of way access requirements
 - Check local zoning
 - Assess findings of GLE, NLE
- Burial conditions
 - Description of casket, shroud materials; no vault; 3.5'-4' burial depth
 - Description of allowable memorials
 - Restoration
 - Trail and path maintenance
- Prior notification of burial
- No disinterment



32

Sample Easement Language

A. The Grantor shall have the right for the conservation burial (as that term is defined below) of _____ on the Property, including the destination and granting of a dedicated right of access to the burial area. Said burial shall also be in accordance with all applicable Town of _____ and State of New Hampshire laws, ordinances, statutes and regulations. The Grantor shall provide the Grantee with the proposed location of the conservation burial for the Grantee to review and approve, approve with conditions, or disapprove in writing and shall so inform the Grantor; Grantor shall notify the Grantee in writing before any such burial shall occur.

1. Conservation burial is defined as the interment of human remains subject to the following requirements and prohibitions: no embalming; no installation of a burial vault; the use of a casket or shroud (if any) made exclusively from natural materials that biodegrade into non-toxic substances; minimal disturbance of the land surface; excavation of graves to the minimum depth required by law; restoration of the burial site and environs to a natural, largely unmaintained condition to provide habitat for native plants and wildlife resulting in an area indistinguishable compared to the Property surroundings; however, a grave marker may be installed.

©2023 for Wilson, Olney-Larson, Casper Creek Natural Cemetery, Casper, VT

33

Free CBA Webinar

- Steps taken by a land trust to establish the only GBC certified conservation burial ground in Illinois
- Register at [conservationburialalliance.org](https://www.conservationburialalliance.org)
- >Events>Webinars

©2023 for Wilson, Olney-Larson, Casper Creek Natural Cemetery, Casper, VT

34

Redesigning the End: Green Burial Masterclass

- 12-week comprehensive course focusing on the tools, techniques, and technology used in operating a natural cemetery
- Best practices as informed by science, the conservation community, and cemetery operator experience
- Register at www.redesigningtheend.com/course/green-burial-masterclass

Photo credit: Robert Cook, Conservation Cemetery, Casper, VT

©2023 for Wilson, Olney-Larson, Casper Creek Natural Cemetery, Casper, VT

35

Resources

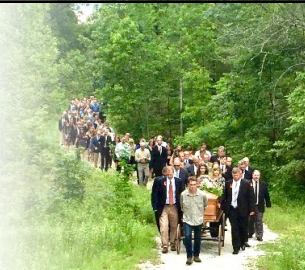
- Conservation Burial Alliance
www.conservationburialalliance.org
- Green Burial Council
www.greenburialcouncil.org
- Memorial Ecosystems
www.memorialecosystems.com
- New Hampshire Funeral Resources
www.nhfuneral.org
- Land Trust Alliance
www.landtrustalliance.org

©2023 for Wilson, Olney-Larson, Casper Creek Natural Cemetery, Casper, VT

36

Meeting Public Demand

- American Funeral Director May 2021:
 - 91% are interested in more environmentally friendly funerals and burials
 - If offered a choice, 84.4% would choose a green burial
- Over 440 known green burial cemeteries in the US and CAN today
 (www.nhfuneral.org/green_burial_green_burial_cemeteries_in_the_US_and_Canada)



37

For More Information

Lee Webster

Executive Director, Funeral Resources, Education & Advocacy
www.nhfuneral.org
 603-236-9495
nhfrea@gmail.com

Former President—Green Burial Council International, National Home Funerals Alliance
 Co-Founder—Conservation Burial Alliance, National End of Life Doula Alliance, NHPCO Doula Council
 Author—Changing Landscapes, The After-Death Care Educator Handbook, The Future of the Corpse
 Website design and content provided: Funerary.com, PSHeritage.org, various nonprofits and for-profit websites



38

Pulverized Bone Scattering Impact

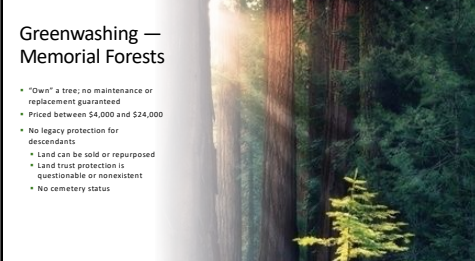
- Final product = calcium phosphate and sodium (200–2000 what plants can tolerate) with an extremely high pH (12.0)
- Phosphorus run-off in waterways, vernal pools, algae bloom that harms marine life
- Heavy, dense bone smothers fragile flora
- Girdling: burial or scattering around tree roots inhibits tree growth; roots avoid sodium
- Nutrients unavailable due to incineration from flame cremation
- Microbial activity inhibited, weakening soil health needed to support foliage



39

Greenwashing — Memorial Forests


- "Dwarf" a tree; no maintenance or replacement guaranteed
- Priced between \$4,000 and \$24,000
- No legacy protection for descendants
 - Land can be sold or repurposed
 - Land trust protection is questionable or nonexistent
 - No cemetery status



40

Natural Organic Reduction (human composting)

- Designed for urban areas
- Legal in 7 states (WA, OR, CO, VT, CA) in 2027; NY, MS available in 3 (WA, OR, CO)
- 1/8th the energy of flame cremation
- Tumbled in temperature- and humidity-controlled vessel for 6-8 weeks
- Pathogens, pharmaceuticals, and heavy metals mitigated by microorganisms
- Meets all EPA safety standards
- Range \$5,500 — \$7,000 plus funeral costs



41

NOR Sourcing and Disposal

- Bulking agents use are feedstock irrigated, harvested, transported, stored alfalfa, straw, forestry by-product wood chips
- 86% irrigated agriculture draining the Colorado River Basin; 30% is alfalfa, some grass hay and corn silage
- Bones removed, pulverized, added back to mixture
- Durables sometimes present
- 1-1 1/2 cubic yards leftover material (LBM) (60 lbs per person)



42

Legal Definitions and Acceptance

- State laws define NOR as a cremation process
- Cremated remains are not legally considered human remains — facility is place of disposition
- Laws define it as “soil”; it is the consistency and make-up of bark mulch
- Conservation cemeterians do not accept it for burial; some areas accept it as fill
- Conservation site plans have specific methods of incorporating compost in restoration sites (EPA Publication Compost Use in Forest Land Restoration, 2005)



43

Soil and Compost Regulations

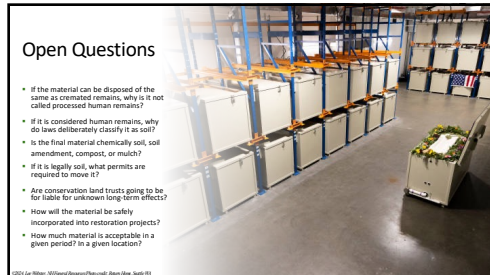
- “The EPA monitors the permitting and usage of the material, whereas the USDA monitors product registration and creates guidelines around movement of material. The state-level environmental offices will then provide permitting based on USDA product and EPA registration approvals.” — Mel Bennett, The Soil Force, Hillsborough, NH
- Soil cannot cross state lines without a USDA permit
- No agency has developed best practices for disposal
- No agency, State or Federal, claims oversight



44

Open Questions

- If the material can be disposed of the same as cremated remains, why is it not called processed human remains?
- If it is considered human remains, why do laws deliberately classify it as soil?
- Is the final material chemically soil, soil amendment, compost, or mulch?
- If it is legally soil, what permits are required to move it?
- Are conservation land trusts going to be held liable for unknown long-term effects?
- How will the material be safely incorporated into restoration projects?
- How much material is acceptable in a given period? in a given location?



45



46



47




48

Alkaline Hydrolysis

(aquamation, bio cremation, wet cremation)

- Legal in 29 states; available in 19 (9.12.23) Not in NH
- 100 - 300 gallons of 200 - 350° heated water under pressure
- Potassium hydroxide alkaline solution (lye) 3 - 12 hours
- Mercury captured but not mitigated
- Uses 80% less energy than flame cremation; emits 20% less CO²
- Neutralizes embalming fluid and cytotoxins
- Range \$1,500 — \$3,500 plus funeral costs



49

AH Disposal

- 10 - 15 lbs. finely pulverized bone
- 20-32% more bone than flame cremation, needing larger urns
- 100 - 300 gallons of effluent
- Releases effluent to the local wastewater treatment or septic
- Not approved as fertilizer



50