earth

Why do we need more sustainable death care options?

- Traditional burial and cremation **are highly pollutive**
- Cremation requires **fossil fuels** and **emits CO_2** and other pollutants into the atmosphere
- Traditional burials **consume valuable land**, demand an enormous amount of **concrete, steel, and wood** for caskets, and **leach chemicals** from embalming and treated casket wood into the soil
- Every cremation and traditional burial, emits an average estimated **metric ton of CO_2**.These options **dissociate us** from the natural cycle of life

What is Natural Organic Reduction (NOR)?

- NOR is the contained **transformation of human remains into nutrient rich soil**
- It produces 1+ cubic yards of soil per process. The family may receive a portion and the rest is **donated to conservation efforts**
- This contributes to the **health of our soils**, enabling them to better filter water, provide nutrients to plants, and sequester carbon
- NOR can have net zero CO_2 emissions and enables our last act to be one of **ecological connection, regeneration, and beauty**

What does the process look like?

Respectfully prepare & shroud the body

Place in individual vessel with wood chips & wildflowers

Gently rotate and monitor temperature; Microbes go to work!

Remove inorganic materials (hip/knee replacements)

Cure compost & test for maturity and stability

Package compost for delivery

Completed in less than 30 days for ~$5,000 ($2,500 less than the national avg. death care cost)

How do I know that it's safe?*

- The resulting soil is **visually, chemically, and biologically no different than other types of compost**
- Studies done by the University of Washington showed **consistently healthy soil quality**
- **Current regulations are more stringent** than those designated by the EPA for biosolid compost
- Temperatures must reach **>131°F for >72 hours, neutralizing pathogens**
- **Regular testing** is done to ensure safety
- **Mandated thresholds (Washington):**
  - Fecal coliform: <1000 "most probable number per gram of total solids"
  - Arsenic: <= 20ppm; Cadmium <= 10ppm; Lead <=150ppm; Mercury <=8ppm; Selenium <=18ppm
- **Additional testing**: Compost maturity and stability; regular sampling for complete compost analysis

Where is NOR currently legal and why might I support legislative efforts?

- NOR is currently legal in **Washington**, **Colorado**, and **Oregon**
- It is on the legislative docket in **Delaware**, **Massachusetts**, **Vermont** and is actively being considered elsewhere
- It has received **nearly unanimous bipartisan support**
- Common reasons for supporting:
  - Gives more **consumer choice**
  - Provides an **environmentally-friendly and natural alternative** to traditional options
  - Brings new, **innovative businesses** and **tax revenue** to your state

NOR is quickly gaining traction: Join the movement!

wp T npr BAZAAR People BBC POPULAR SCIENCE

*Some cases are not eligible for NOR (those with prion disease, mycobacterium TB, Ebola, a radioactive seed implant, nuclear pacemaker, etc.)

Questions? Contact carolyn@earthfuneral.com

earth

Natural Organic Reduction (NOR) & Vermont

Current Legislation

- House Bill 244: "An Act Relating to Authorizing the Natural Organic Reduction of Human Remains" was introduced in February 2021
- Bill sponsors: Reps. Partridge, Lippert, Bartholomew, Beck, Coffey, Cordes, James, Masland, Mrowicki, Ode, Stebbins, Suprenant, and White
- Bill purpose: "To allow for the permanent disposition of human remains by natural organic reduction. It would give operators of natural organic reduction facilities the same rights and responsibilities as the operators of crematory establishments."

Benefits to Vermont

- Consumer Choice: NOR won't be for everyone, but for those with whom it resonates, it can be a great **option that aligns well with personal values and priorities**.
- Environmental: In addition to producing high quality soil that can be returned to nature and used in restoration and carbon sequestration projects, NOR requires **1/8 the energy of cremation** and, through using clean energy sources, has **net zero CO_2 emissions**. Relative to cremation, this saves an average **535 lbs of CO_2** per person (far more relative to traditional burial). If every person in Vermont chose NOR over the next decade, it would amount to well over 32 million pounds of emissions averted.* That is the **equivalent of 36M miles driven, or nearly 13,000 cross-country road trips**. It would take ~20,000 acres of trees to sequester the equivalent amount of carbon in 1 year.

- Investment, jobs, and tax revenue: Existing funeral homes will have a new option to meet consumer demand, and new companies can **invest millions in NOR facilities**. If 10% of Vermont consumers went out of state for NOR, Vermont funeral homes **could lose over $30M over the next decade**.

Washington State Precedent

NOR is regulated like all other methods of disposition in Washington State with some added types of licensure and environmental tests.

- Licensure: There are new licenses for **Reduction Facilities** and **Reduction Operators**. They have nearly identical requirements to those of crematories and crematory operators.
- Operational: Reduction facilities are subject to the **same zoning, health, and ecology ordinances as crematories**. Additionally, vessels must reach a minimum temperature of 131°F for 72 consecutive hours during the reduction process and soil must pass **specific standards**, which are outlined in the prior page.

Consumer Demand

A 2019 survey by the National Funeral Directors' Association found that **>50% of Americans expressed interest in green burial options**, and demand continues to grow. In Washington State, there are already four NOR providers, over a thousand preneed plans have been sold for NOR, and nearly a third of clients are being transported across state lines to Washington to access NOR because it is not yet legal in their state.

* Based on total deaths in VT in 2019 x 535 lbs CO_2 x 10 years

Questions? Contact carolyn@earthfuneral.com