

Mahonia Land Trust Composting Privy Project

The goal of this project is to help an environmental education land trust accommodate the waste management needs growing numbers of visitors to the land without losing adherence to their mission of sustainability. Constructing a composting toilet on their land would also serve as a model for other organizations on alternative ways of waste management.

The Privy Project will collaboratively construct an outdoor, all-weather composting toilet facility on the Mahonia Land Trust, an existing community land trust in Clackamas County. When complete, the team will train land trust members and visitors to appropriately use and maintain the facility. It will be a long-term, low-cost, working demonstration model for resource conservation that does not depend on water or electricity.

The Mahonia Land Trust has served for nearly a half century as a place to promote ecological diversity, preserve the earth, and act as an educational space for visitors and residents. A Lewis & Clark alumna helped start the land trust in the 70s and has stayed involved in both communities ever since. She has since reached out to the Lewis & Clark community to get the next generation of members involved.

Issues Addressed by the Project:

The land trust has the space and leadership to accommodate an increasing number of members, but lacks infrastructure amenities for volunteers, educational program participants and other non-resident visitors. There are two residencies on the 67 acre property where the only facilities are located. With numerous hiking trails, as well as camping area and farmland, it is inefficient for workers and guests to hike long distances to use one of the toilets attached to residencies.

As efforts to grow the community continue, it is important to match this outreach with infrastructure. The planned location for the Privy Project will be located between a campsite and a field. Both areas are a 20+ minute walk from the nearest toilet and are expected to get increased traffic as the community grows. The Privy Project would allow Mahonia to accommodate the waste management needs of growing numbers of visitors to the land, without losing adherence to their mission of sustainability.

The current, dominant system of waste management we are utilizing in the United States engages in constructing and maintaining sewers, chemically treating water and sewage, and producing inorganic fertilizers. Our soil needs to be replenished with nutrients such as nitrogen and phosphates, which just so happen to be the same nutrients that come out of our bodies! But we flush these nutrients away, combining them with chemicals and water. Meanwhile, our soil lacks these very same nutrients, so we create synthetic fertilizer. The combination of these processes is incredibly energy intensive. The reliance on fossil fuels to run equipment and facilitate transportation of waste compromises our air quality and is linked to contributing to rising carbon levels and climate change.

The Solution:

The Privy Project addresses the local problem of the Land Trust's need for more amenities, while serving as a broader educational model for low-impact development in the field of waste management. Collaboration between land trust members, L&C students, and other volunteers would provide a service-learning opportunity for students as well as a practical development project for the land residents. This project would be an important step in re-affirming the Mahonia mission to make the land more accessible to new people, without compromising their devotion to low-impact practices.

The composting toilet is a creative solution to help meet the need for dispersed amenities, with minimal impact on protected forest land and optimal compliance with land trust standards for sustainability, low carbon emissions and community access. Composting toilets use biodigestion, meaning that bacteria break down organic material; this process allows human waste to be turned into fertilizer that can return to the soil. Lewis & Clark College already takes part in take part in modeling alternative waste management, as it is home to a Clivus Multrum composting toilet. However, the college's model cost \$25,000 which is not feasible for most organizations. Our Privy Project models the ability to develop alternative infrastructure at a relatively low cost; something more replicable at other locations.

The Mahonia Land Trust team is looking for students or other community members with interest in sustainable waste management, environmental education, land use, and/or construction. Volunteers are needed to help plan and execute the project. If you are interested in being involved, please contact Tina Buetell for more information.

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