

Town of Londonderry

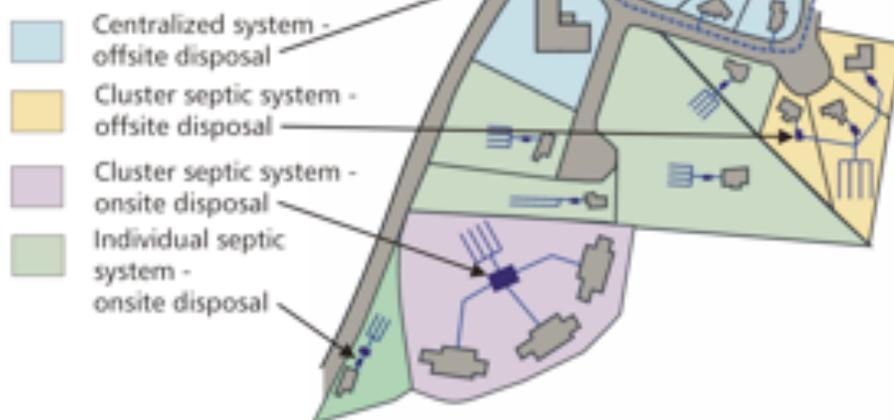
Village Wastewater Project *Decentralized Soils-Based Solutions*

What are decentralized soils-based wastewater solutions?

For rural communities with limited public infrastructure, decentralized, soils-based wastewater systems provide safe and affordable systems for homeowners and businesses that reside in flood plains and have restricted property for individual septic systems.

Decentralized systems can include traditional onsite septic systems that serve clusters of homes and businesses. These shared systems may serve multiple buildings on a single property (shown in purple) or may serve several different properties (shown in tan). Finally, centralized disposal systems with off-site collection pipes, treatment, and eventual soil-based dispersal may be included within a decentralized wastewater system (shown in blue). These systems can be especially useful in villages with very small lot sizes, or in areas with valuable natural resources that need to be protected from potential wastewater contamination.

“Decentralized” Septic Systems



Why should Londonderry undertake the Village Wastewater Project?

The State of Vermont awarded Londonderry a major grant of \$7.9 million to help us meet the challenges of aging septic systems in our villages that threaten water supplies, surface and ground water and potentially impact the health of our residents. We have been working with the state since 2019 in studying and identifying viable options to provide decentralized wastewater disposal facilities within the Town of Londonderry. This work is being undertaken

in the hopes that recently appropriated federal funding, administered through the State of Vermont, can be utilized to ensure the future of Londonderry.

In the more densely developed portions of our north and south villages, existing wastewater disposal practices are inconsistent with current state regulations, limiting options for property owners at time of transfer or for expanding existing use, and creating potential drinking water health hazards due to the close proximity of existing septic distribution fields and wells. Decentralized wastewater disposal facilities provide a path forward, and have benefitted numerous communities throughout Vermont.

Types of Systems Used in Decentralized Soils-Based Solutions For the Londonderry



For the Village Wastewater Project, a combination of these systems will be used. What homeowners and business owners have in place today, is a conventional septic system that mirrors the components of a decentralized system.

Components of Decentralized Systems

Disposal fields

The location, size and depth of a disposal system are all determined by the specific soils and site conditions that are identified on the property. Additional considerations for locating a disposal field include the surrounding topography, sensitive environmental features on or near the site and any required setbacks.

Pre-treatment systems

Pre-treatment systems provide an additional preliminary process (or multiple processes) for filtering and decomposing waste before the treated effluent is allowed to flow into the disposal field. These systems are often used to improve treatment for restaurant and food preparation businesses or to treat heavy organic or toxic loading. Using pre-treatment systems can reduce the total land area needed for a disposal field.

Community systems

Community wastewater disposal systems, also known as clustered or shared systems, should be considered in cases where soil conditions, lot size, or topography complicate the placement of individual onsite systems. They can also be used to facilitate compact development with smaller lot sizes and reduced infrastructure costs. Clustered systems can be as simple as a conventional subsurface disposal field shared by two lots and served by individual septic tanks, or as complex as a neighborhood collection system.

Facts About Decentralized Wastewater Systems

- They are **SAFE!**
- Have no negative impacts to nearby water supplies
- Have no negative impact to adjacent properties
- Have no negative environmental impacts
- Have no odors

What impact will decentralized, soils-based wastewater solutions have on our community?

Here's a snapshot of what decentralized systems look like in other Vermont communities.



Example of Disposal Field Installation: Before and After Location: Warren Elementary School

