



DECENTRALIZED WASTEWATER TREATMENT CAN BE GREEN AND SUSTAINABLE



HOW CAN DECENTRALIZED WASTEWATER TREATMENT BE GREEN?

USING ENERGY AND LAND WISELY

- Takes advantage of gravity flow rather than using energy to pump the wastewater.
- Incorporates septic tanks at the wastewater source resulting in reduced costs and energy for treatment of septage prior to land dispersal.

RESPONDING TO GROWTH WHILE PRESERVING GREEN SPACE

- Can easily be scaled to a needed size for communities with rapid growth where installing pipelines a long distance to a central waste facility can be too expensive.
- Tend to have small, minimally intrusive environmental footprints and often have the benefit of creating green spaces in communities.

INCREASING WATER QUALITY AND AVAILABILITY

- Effectively and efficiently treats domestic sewage to protect water quality and support local water supplies.
- Wastewater stays in the local watershed as it returns to the drain field, dispersing into the underlying soil and eventually recharging groundwater and/or reentering the local watershed.
- Advanced decentralized treatment systems can achieve treatment levels comparable to centralized wastewater treatment systems while minimizing the level of phosphates and nitrogen entering the ground water.
- Makes it easier for a community to employ water reuse techniques and, as a result, reduce the demand for treated drinking water.

USING THE NATURAL TREATMENT PROPERTIES OF THE SOIL

- They can help reduce the level of difficulty and cost to treat pollutants, such as nutrients, and keeping them from entering lakes, rivers, and streams.
- The soil acts as a natural filter and provides final treatment by removing harmful bacteria, viruses, and nutrients.

- Increase water quality & availability
- Respond to growth while preserving green space
- Use energy & land wisely
- Easily scalable for residential, commercial & community systems

Where It Has Worked

Olympia, WA

The Lacey, Olympia, Tumwater, and Thurston County (LOTT) Alliance is a water and sewer utility serving the Olympia, Washington area. The Alliance wanted to meet the needs of a growing population with a system providing greater environmental benefits. They developed a 20-year plan that calls for construction of three satellite reclaimed water treatment plants that **promote wastewater reuse, wisely manage community resources, and take advantage of the latest advances in technology.** The utility's plan includes a strong educational component, highlighting the benefits of water reclamation and reuse.



**Sustainable, Affordable
Environmentally Friendly Infrastructure**