

# LEED Profile: Orengo<sup>®</sup> Effluent Sewers



## Background

The Leadership in Energy and Environmental Design (LEED) Green Building Certification (GBC) for new commercial buildings and major renovations is an important accreditation for today's environmentally aware designers and builders. With increasing interest in environmental sustainability and efficiency, more designers and builders are seeking LEED Certification for their projects. Orengo's Effluent Sewers can help you gain LEED GBC.

## Product

Orengo Effluent Sewers are a cost-effective, decentralized way to meet sewerage needs. With an Orengo Effluent Sewer, raw sewage flows from the house or business to a watertight underground tank, where it is pretreated. Solids remain in the user's underground tank. Only the filtered liquid is discharged (by either pump or gravity) to shallow, small-diameter collection lines that follow the contour of the land.

## Sustainable Sites

SS Prerequisite 1: Construction Activity Pollution Prevention: Orengo Effluent Sewers use small pipe and pressurized flow, which allows for shallower burial depth than gravity collection allows. This lessens site disturbance and enables the use of small, fuel-efficient excavation equipment. Minimizing digging reduces potential erosion and airborne dust.

SS Credit 5.2: Maximize Open Space: Effluent Sewers enable developers to cluster homes more closely together than is possible with individual septic systems, allowing for a higher ratio of open space to development footprint, which promotes biodiversity.

## Water Efficiency

WE Credits 1.1 and 1.2: Water Efficient Landscaping: An Orengo Effluent Sewer coupled with an AdvanTex<sup>®</sup> Treatment System can provide recycled water for subsurface irrigation.

WE Credit 2: Innovative Wastewater Technologies: An Orengo Effluent Sewer coupled with an AdvanTex Treatment System and soil dispersal can recharge the local aquifer.

## Energy & Atmosphere

EA Credit 1: Optimized Energy Performance: Passive primary treatment takes place inside each property's interceptor tank, reducing power requirements at a downstream municipal treatment plant.

EA Credit 1: Optimized Energy Performance: Orengo's low-horsepower (1/2 hp), high-head effluent pumps run for just minutes per day, resulting in a far more energy-efficient method of treating wastewater than is provided by grinder pumps and gravity systems with lift stations.

EA Credit 1: Optimized Energy Performance: Orengo Effluent Sewers are completely watertight, so they do not suffer the inflow and infiltration common to gravity sewers, eliminating unnecessary power usage to convey and treat extra liquid.

**Materials  
& Resources**

MR Credits 4.1 and 4.2: Recycled Content: High Density Polyethylene (HDPE) piping with recycled content can be used for collection lines.

**Innovation  
& Design**

ID Credit 1-1.4: Innovation in Design: Orenco Effluent Sewers can be a key feature in designs exceeding performance standards set by the “LEED for New Construction Green Building Rating System,” and also in areas of innovative performance not specifically addressed by LEED.

**Company**

Orenco Systems<sup>®</sup>, Inc. has been designing, manufacturing, and distributing leading-edge effluent sewer and wastewater equipment since 1981. Most of the company’s ~300 employees work out of a 23-acre (9.3 ha) headquarters site in Sutherlin, Oregon, that includes sales, manufacturing, engineering, and research facilities. More than 100 distributors sell Orenco’s standard product lines throughout the U.S.A., Canada, New Zealand, South America, and Europe. For more information, go to [www.orencosystems.com](http://www.orencosystems.com).

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