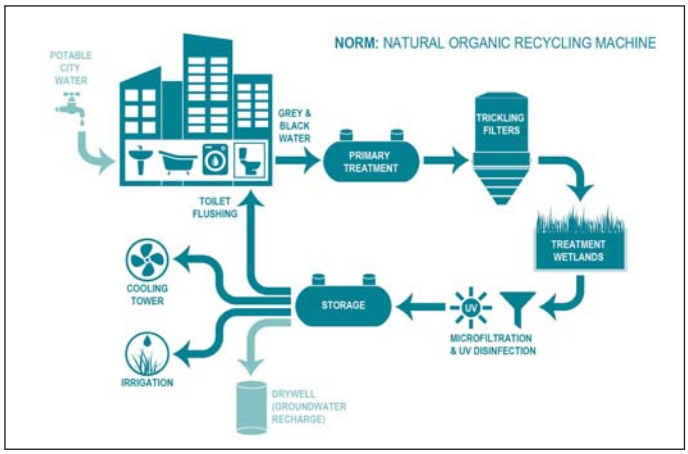
AMERICAN ASSETS TRUST

Hassalo on 8th Wastewater Treatment & Reuse System

Portland, Oregon



"NORM is going to change the paradigm of large scale development"

— Kyle Andersen, AIA, LEED AP, Design Principal, GBD Architects

An urban redevelopment project treats its wastewater for reuse onsite, redirecting it away from stressed city sewer infrastructure.

Portland's Lloyd neighborhood is a dense cluster of office buildings with little residential space. The area is served by a combined sewer overflow system, in which rainwater is conveyed along with sewage and ultimately treated as wastewater. Hassalo on 8th is a four-block, sustainable urban development. Pending LEED Neighborhood Development Platinum certification, Hassalo on Eighth boasts the highest level of certification in renewable, clean energy development, green roofs, a bike hub, access to mass transportation, and numerous other eco-friendly technologies and amenities. It is also one of the first urban neighborhoods to treat and recycle its wastewater on site.

Biohabitats designed an onsite wastewater system nicknamed NORM (Natural Organic Recycling Machine). This decentralized treatment and reuse system is designed to divert 100% of the wastewater generated in the three new buildings away from the municipal sewer. The project lessens the burden on this public utility, staving off costly repairs and infrastructure expansion, which garnered considerable support from the City as well as the Oregon Department of Environmental Quality. It is also a popular sustainability feature on the site.

The system, which was designed in collaboration with GBD Architects, Glumac, and PLACE studio, treats 45,000 gallons per day to State of Oregon Class A reuse standards through a series of trickling filters and constructed wetlands. The trickling filters are integrated into the design of the park-like pedestrian corridor at the center of the project and the wetlands are an element of the landscaping. Treated, disinfected wastewater is reused for toilet flushing, running the buildings' cooling systems, and landscape irrigation. Excess, unused treated wastewater is injected into dry wells for crucial groundwater recharge in a largely impervious urban area, ensuring that no element of this new 'waste' stream is wasted.

SERVICES

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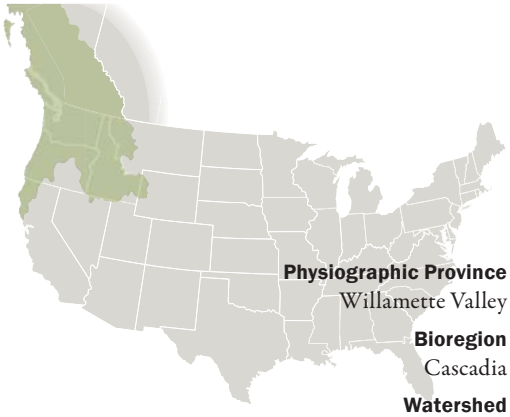
Green Infrastructure
Permitting



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