

Wastewater Solutions
from **Orenco Systems[®], Inc.**



**From the South Island
of New Zealand ...**

**To the suburbs
of Lacey, Washington ...**



We do it all.

Orenco Systems® has been refining wastewater technologies since 1981. In the process, Orenco's engineers and scientists have an accumulated 500 years' experience in providing affordable, sustainable wastewater solutions.

Orenco's wastewater technologies serve communities and developments of all types and sizes. They take the burden off maxed-out municipal

Wastewater Solutions from Orenco Systems®, Inc.



systems, handle fringe development, and provide affordable options for areas facing environmental compliance orders. Because they use little power and enable water reuse, they define the very future of sustainable wastewater engineering.

Orenco's wastewater equipment has been installed at the top of glaciers in Alberta, eco-villages in Australia, hotels in Greece, USAID projects in Guatemala, and in cities, subdivisions, and resorts throughout the world.

Orenco is recognized worldwide for its expertise, and our staff and distributors provide value-added services at every phase of a wastewater project, from planning and finance through management protocols and lifetime support. On the inside of this brochure is a brief list of our technologies, markets, and services.

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TECHNOLOGIES

Orenco's technologies can be purchased alone or as part of a completely integrated collection, treatment, and dispersal package.

Wastewater Collection & Conveyance

- Orenco Sewers™ (effluent-only sewer systems, also known as STEP/STEG systems)
- A fraction of the cost of gravity sewers; compatible with existing infrastructure
- For use in residential clusters, subdivisions, and communities
- Ideal for use with media filters, SBRs, MBRs, oxidation ditches, lagoons, etc.



Photography by Gary Leonard

Audubon Center, Los Angeles, California



Water, Wastewater, & Industrial Controls

- Simple alarms to custom pump station panels and treatment system panels
- Advanced features, including remote telemetry and third-party MODBUS® connectivity
- UL listings for US and Canada; CE marking for Europe
- For use with residential, commercial, industrial, and municipal installations
- OEM panels and value engineering



Decentralized Wastewater Treatment

- Secondary treatment systems: AdvanTex® recirculating media filters
- Tertiary treatment systems: disinfection, polishing, and nutrient removal (TN, NH₃, TP)
- For use in residential clusters, subdivisions, commercial facilities, mobile (temporary) facilities, and communities
- One property or thousands



Photo courtesy of InnoFlow Technologies

Jack's Point Resort, Queenstown, New Zealand



Photo courtesy of InnoFlow Technologies

Jack's Point Resort: AX-100 Treatment System

MARKETS

Different market sectors value Orenco's wastewater solutions for different reasons.

New Subdivisions

- The benefits of a professionally managed sewer system, beyond the urban core
- Infrastructure on demand: modular construction, deferred costs, low up-front capital investment
- Accommodates sustainable development practices; preserves open space



Municipalities & Communities

- Affordable collection and treatment technologies
- Affordable integration of fringe developments; sustainable service-area expansion
- Compatible with existing infrastructure; low-impact installation
- Low life-cycle costs: low energy requirements, low-cost O&M
- Designed to be watertight throughout, protecting public health and the environment



Missoula, Montana



Victoria, Prince Edward Island, Canada

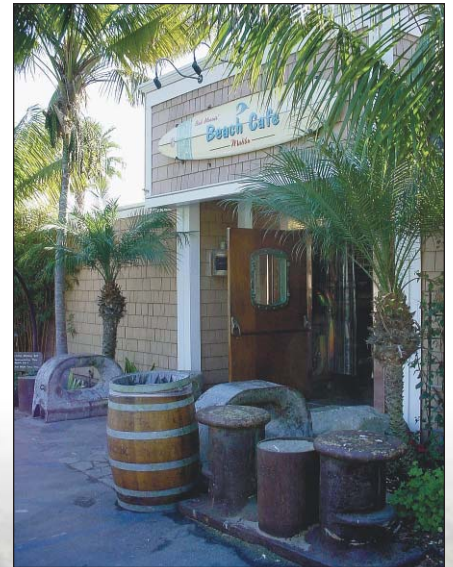
Commercial Facilities

- Outstanding effluent quality; capable of meeting stringent regulatory requirements
- Easy to operate with 24/7 monitoring via remote telemetry
- Ideal for schools, churches, offices, restaurants, casinos, rest stops, campgrounds, RV/mobile home parks, mining camps, etc.



Entergy, White Bluff, Arkansas

Living Waters Ranch, Idaho



Paradise Cove, Malibu, California

Photo courtesy of New Water Systems

SERVICES

Orenco doesn't just supply equipment; we provide a comprehensive approach to wastewater solutions.

Planning & Permitting Support

- Support for obtaining permits, including subsurface discharge and NPDES
- Master plan review
- Life-cycle cost analyses, pro forma budgeting



Training & Technical Support

- Stakeholder presentations and end-user education
- Engineer workshops on equipment and system design
- Installer and operator training

Engineering & Design Support

- Design assistance, hydraulic modeling
- Drawings, details, submittals, specifications
- Review of preliminary engineering reports
- Facility plan reviews



Sustainable Strategies

- Water reuse, subsurface irrigation, groundwater recharge
- Comparative analyses of power consumption; operational carbon footprint
- Assistance with LEED reporting, documentation



Construction Management

- Referrals to design/build partners
- Pre-bid assistance with contractor prequalification
- Bid assessment and recommendations
- Start-up oversight



Asset Management

- Operation & maintenance manuals
- Technical assistance and product support
- Planning and budgeting for equipment repair and replacement
- Assessment and optimization of energy management
- Assessment and optimization of operational, environmental, and financial performance



Orenco® Solutions

Defining sustainable solutions since 1981



Three Decades of Solutions

Headquartered on a 26-acre (10.5 ha) site in Sutherlin, Oregon, Orenco® has grown to become an industry leader over the past three decades. The company has about 350 employees and about 330 points of distribution in North and Central America, Australasia, Europe, and Africa. Our products and technologies have been installed in more than 70 countries around the world.

Orenco is owned and managed by engineers who hold multiple patents, and their technologies are based on sound scientific principles, as well as affordable life-cycle costs. Orenco's research and technologies appear in numerous publications, and our professional staff are regularly asked to give workshops and offer trainings.



For more information, including project summaries and case studies, call Orenco at **800-348-9843** or **541-459-4449**, or go to www.orenco.com.



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