

A Comprehensive Approach to
Domestic Wastewater Treatment



The collage features several images: a large industrial facility with multiple storage tanks; a white modular container unit with the newterra logo; several large white cylindrical tanks with the newterra logo; a blue rectangular unit with the 'ajrba' logo; a large pile of grey cylindrical media; and a complex industrial water treatment system with multiple pipes and tanks.

INDUSTRIAL WASTEWATER

DOMESTIC WASTEWATER

POTABLE WATER

REMEDIATION

MEDIA SERVICES

STORMWATER

INDUSTRIAL WATER

from
Source
to
Solution
newterra

► *Domestic wastewater is not a challenge but an opportunity for positive change*

In a world where responsible water usage is paramount, our commitment is to provide cost-effective solutions that transform domestic wastewater challenges into opportunities for environmental stewardship.

At Newterra, we understand the critical importance of preserving water resources while ensuring the health and well-being of communities. Our comprehensive suite of domestic wastewater solutions is designed to meet the diverse needs of residential areas, creating a seamless integration of effective technology and environmental responsibility.

From advanced treatment processes to decentralized wastewater systems, our solutions are tailored to enhance efficiency, reduce environmental impact, and contribute to the overall well-being of the communities we serve.



The Triton® 2.0 Series Process Aerator and Mixer - the world's most respected process aerator

Get Domestic Wastewater-Smarter!

Understanding Newterra Domestic Wastewater Technology

If you're challenged by your budget, struggling to address compliance needs or need to optimize the performance of your wastewater treatment, we're here for you. Newterra's high-performing solutions are long-lasting, reliable and budget-friendly.

It's essential to have quality wastewater treatment solutions with long-term reliability. Through sophisticated technology, Newterra provides low-cost systems that are easy to implement, operate and maintain.

Whether you're in a remote mining camp, an RV park, a new housing development, or an aging municipal treatment system, our team of industry-proven experts can support you in navigating any obstacles. We'll quickly develop and deliver efficient solutions that meet compliance, allow for growth, and upgrade performance.

Simplified Installation & Integration

Save time and money with easy installation. Our prefabricated systems are easy to integrate and greatly reduce field construction costs and schedule.

Water Reuse

Conserve fresh water resources, comply with reuse regulations, and increase drought resiliency using reclaimed water from our advanced treatment systems for irrigation, toilet flushing, cooling towers, and other non-potable or indirect potable uses.

Industry-Leading Expertise

It's easier to meet compliance, understand risk and solve challenges with a team of water experts by your side. From high servicing costs to capacity issues, Newterra helps you overcome any hurdles and improve your wastewater treatment systems.

Cost-Effective Systems for Scalability

Whether you want to scale down your treatment or plan for expansion, it's critical to pace the costs of your system. Our advanced treatment technologies allow you to downsize equipment, upgrade performance and prepare for future demands, which allows you to stay on budget and avoid premature costs.

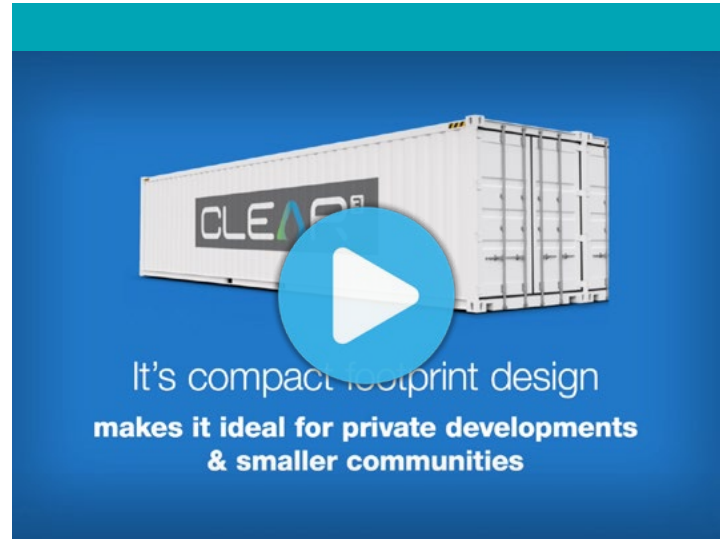
Quality Technologies for Remote Locations

Keep your workers safe and protect your environment with plug-and-play solutions. Designed for the roughest and most remote camps, our effective systems will keep you in full compliance, reduce environmental impacts and mitigate overall risk.

Surface Aerators

Thanks to their robust design, you'll enjoy a long-lasting performance from our surface aerators in the most remote, debris-heavy environments and activated sludge systems. Some of the additional benefits include upgrading and expanding





existing infrastructure, increasing capacity, efficiency and performance, reducing odor, increasing mixing and aeration capacity, decreasing power consumption and eliminating tank draining.

Membrane Bioreactors (MBRs)

Newterra MBR systems provide several advantages over traditional “bricks & Mortar” treatment plants, including a modular and expandable design with no need for additional building structures – all this with a minimal footprint, saving you space and money. Even with the strictest regulations, treated effluent is easily suitable for both reuse or discharge applications. Remote telemetry offers off-site access and monitoring, reducing operator time on-site. All of this drastically reduces installation and start-up and offers less maintenance over time at much lower cost. With pre-engineered and modular options, there is no system in the market that can match Newterra’s MBR for ease of installation.

A Tailored Expertise for Every Challenge

Together We Can Solve Your Water and Wastewater Problems

Our innovative products are designed to have a resilient and reliable lifecycle that maximizes your operations cost, budget and environmental goals. Benefit from Newterra’s extensive experience, with a track record of over **10,000 successful installations worldwide.**

By choosing Newterra, you gain access to a wealth of knowledge, ensuring innovative and effective solutions supported by decades of research, development, and market-leading products.

Comprehensive Solutions from One Provider

With technologies and services to meet just about any water-related need, Newterra can help you refine your strategies, streamline operations, and optimize operational costs.

Championing Environmental Responsibility

Align with a partner that doesn’t just talk about sustainability but embeds it in every action. Choosing Newterra means choosing a future where business and environmental responsibility coexist.

[CLICK HERE](#) to learn more about **Newterra’s Core Values** and initiatives reflecting our commitment to sustainability.

[CLICK HERE](#) to learn more about **our continued commitment to protecting the environment**, supporting our people, and enhancing the communities we serve.

Customer Success Comes First

Every challenge is unique, and Newterra has the expertise and resources to support you. Any vessel, any media-type, any application, our team collaborates with you to tailor your solution. Our goal is to ensure the optimal performance of your operation.

Engage with Ease

Initiating a partnership with Newterra is seamless. From a straightforward engagement form to prompt follow-ups, we prioritize your experience from start to finish.

[CLICK HERE](#) to get started by an expert team that **IS** committed to providing top-tier support and services for optimal operational efficiency.

We Deliver Exceptional Results

Our Commitment to Excellence is Reflected in Our Water Treatment Projects

Our installation projects exemplify our dedication to helping municipalities and industry achieve their own treatment and environmental initiatives with cutting-edge solutions for more clean and sustainable water. These initiatives are vital in addressing water scarcity and contamination challenges. By ensuring access to high-quality water, we contribute to a sustainable and water-secure future. We see each installation as being more than just a system, but a step towards healthier communities and a greener planet. (See list below some recent Domestic Wastewater projects.)



Large Online Warehouse

Newterra was contracted to supply a new wastewater treatment facility for a major online retail client who was looking for a logistically ideal location for their latest warehouse facility. The site was a former automobile assembly plant that had been returned to greenfield conditions including the decommissioning of the previous wastewater treatment plant.



Mobile Home Community

A year-round RV and mobile, situated on the shores of Lake Ontario previously relied on subsurface treatment, however, regulatory changes rendered this method unsustainable. With challenges like high bedrock and limited space due to design flow values, a more advanced sewage treatment solution was needed.



Small Remote Community

A residential community near Telluride, Colorado, urgently needed to replace its failing treatment system to comply with stricter effluent regulations and avoid fines. Challenges included difficult installation and a tight schedule. Adoption of MBR technology was necessary to meet updated effluent requirements.



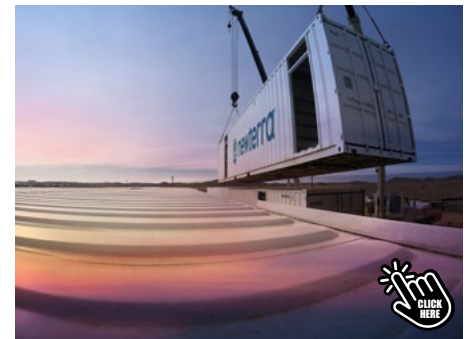
Small Township

As an alternative to a conventional treatment plant, a small township investigated a Newterra (MBR) Wastewater Treatment Facility. The “building block” approach could offer them lower up-front costs and, because these pre-fabricated systems come pre-manufactured and delivered on-site, they can be installed in a fraction of the time and cost of a traditional system.



Waterfront Community

A meticulously planned waterfront community alongside Lake Ontario chose Newterra modular treatment technology, with custom-built treatment buildings tailored to meet the community’s stringent environmental standards. The phased-in installation approach will initially serve 125 homes, scaling up to accommodate around 500 homes upon completion.



Greenfield Project

Early in the planning stages, Newterra was engaged to design a modular solution that could be seamlessly integrated on-site and meet strict discharge and reuse regulations. The project arose from the construction of a greenfield lodge in rural North Dakota to accommodate the growing demand for short-term housing due to the expanding oil industry.

Hundreds of Installations Worldwide

A robust installation base servicing diverse industries with reliable performance and comprehensive support for global clients.

Look to our experience in **Domestic Wastewater** and look to us as an invaluable partner for to make your job easier. Newterra's vast experience and large installation base and industry experience have historically cultivated essential relationships with our clients and suppliers, forming a relationship of collaboration and trust in new projects or partnerships.

See a sample project list below, showcasing our expansive offerings of Domestic Wastewater solutions across many industries.

Year Supplied	Project Location	Market Served	Equipment Supplied
2024	California (USA)	Commercial Building	Clear ³ MBR Modular Wastewater System (24,000 GPD)
2024	New York (USA)	Motel	Clear ³ -35 Wastewater System
2023	New York (USA)	Multi-Unit Housing	Clear ³ MBR Skidded Wastewater System (47,000 GPD)
2023	Louisiana (USA)	Municipal/Government	(15) 5HP Series 275 Aspirators on Tri-Floats
2023	Colorado (USA)	Tourist Site	Clear ³ MBR Modular Wastewater System
2023	British Columbia (Canada)	Pilot MBR System	Clear ³ MBR Modular Wastewater System
2023	Louisiana (USA)	Municipal/Government	Aeration Equipment for Lagoon System Upgrade
2023	Ontario (Canada)	Beach Resort	Clear ³ MBR Modular (low-flow) Wastewater System
2022	New Jersey (USA)	Adult Community	Clear ³ MBR Modular Wastewater System (45,000 GPD)
2022	California (USA)	Private Development	MBR Modular (Blackwater) Wastewater System (15,000 GPD)
2021	Binh Duong (Vietnam)	Small Municipality	Custom Newterra Triton 2.0's, complete with Float Assemblies and Walkways
2021	Hawaii (USA)	Commercial Property	Clear ³ MBR Modular Wastewater System (60,000 GPD)
2021	Ontario (Canada)	Private Development	Retrofit/Expansion of Existing Newterra Clear ³ MBR System
2021	Ontario (Canada)	Private Development	(Expansion of a Six-Year-Old Newterra) Clear ³ MBR Modular System
2021	Bermuda	Land Development Company	Four (4) Separate Clear ³ MBR Wastewater Systems (200,000 GPD)
2021	Colorado (USA)	New Remote Commercial Development	Clear ³ MBR Modular Wastewater System
2021	California (USA)	Commercial Building	(In-Building) Graywater/Rainwater Reuse Treatment System
2020	New York (USA)	Small Municipality	MBR Skid-Mounted Retrofit System (120,000 GPD)
2020	Pennsylvania (USA)	Private School	Clear ³ MBR Modular Wastewater System
2020	Colorado (USA)	Municipal Treatment Plant	(Six) Newterra Aire-O2 Mixers
2019	Ontario (Canada)	Lakeside Condominium Development	Clear ³ MBR Modular Wastewater System (11,000 GPD)
2018	New Jersey (USA)	Private Development	Clear ³ MBR Modular Wastewater System (45,000 GPD)
2018	Ontario (Canada)	Commercial Development	Phased-In Clear ³ MBR Modular Wastewater System (99,592 GPD)
2017	New York (USA)	Small Municipality	Clear ³ MBR Modular Wastewater System
2017	Ontario (Canada)	Marina, Restaurant & Condo Development	Clear ³ MBR Modular Wastewater System
2017	Ontario (Canada)	Golf Course	Clear ³ MBR Modular Wastewater System (13,200 GPD)
2017	Ontario (Canada)	/RV Park	Clear ³ MBR Modular Wastewater System (11,359 GPD)



MBR.ST Series

Pre-Engineered Modular MBR Sewage Treatment System

The Clear³ (Clear-Cubed) MBR.ST Series is a line of pre-engineered stand-alone decentralized modular treatment plant capable of treating sewage and waste water from residential, recreational, institutional and commercial developments up to **237,700 gallons per day**. The rugged, self-contained systems are housed in single modular building enclosures, built to meet local **weather conditions from extreme heat to extreme cold**, and designed to flexibly work with various in-ground configurations for tanks. The Clear³ MBR.ST Series is built on Newterra's years of membrane bioreactor experience and utilizes world class proven ZeeWeed[®] membranes for exceptional permeate quality that meets the **most stringent regulatory requirements** for reuse applications or discharge to sensitive receptors.

Influent & Effluent Limits

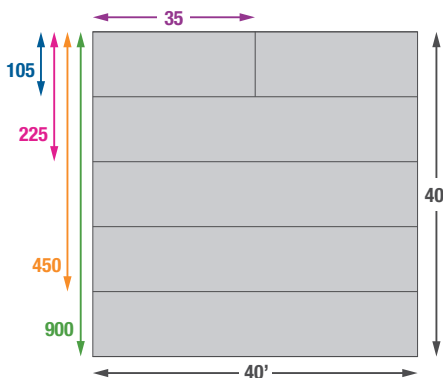
Designed for a range of wastewater strengths and the ability to meet the most stringent discharge and reuse requirements.

Flow Parameter	Influent From...	Effluent Limits
Biological Oxygen Demand (BOD ⁵)	200 to 400 mg/L	5 mg/L
Total Suspended Solids (TSS)	150 to 350 mg/L	5 mg/L
Total Kjeldhal Nitrogen (TKN)	35 to 70 mg/L	-
Total Ammania Nitrogen (TAN)	25 to 50 mg/L	1 mg/L
Total Nitrogen (TN)	-	5 mg/L *
Total Phosphorous (TP)	5 to 10 mg/L	0.1 mg/L *
Fat, Oil, and Grease (FOG)	Less than 30 mg/L	-
Fecal Coliform	-	2.2 MPN/100 mL**
Water Temperature	10 to 25°C	-
Turbidity	-	0.5 mg/L

*With nutrient reduction option(s) selected
 **With disinfection option(s) selected

Efficient Modular Design

- Fully functional building including, but not limited to insulation, heating, ventilation, lighting, operator work space, and eyewash station
- Optional exterior finishings (color, siding, and/or roofing)



Clear³ Design Advantages

- Pre-fabricated modular facilities
- Rapid deployment
- Compact footprint
- Scalable
- Operator-friendly
- High-quality effluent
- No odor
- More discharge options
- Sound attenuation
- Reuse-ready effluent

Design Flow Parameters

With robust biology and a broad turn-down capability the Clear³ MBR.ST Series is designed around the following flow conditions.

Flow Parameter	MBR.ST Model				
	MBR.ST-35	MBR.ST-105	MBR.ST-225	MBR.ST-450	MBR.ST-900
Average Daily Flow (ADF) (gal/day)	9,200	27,700	59,400	118,800	237,700
Maximum Monthly Flow (MMF) (gal/day)	11,000	33,200	71,300	142,600	285,300
Maximum Daily Flow (MDF) (gal/day)	18,400	55,400	118,800	237,700	475,500



Clear³ MBR.ST Series

Pre-Engineered Modular MBR Sewage Treatment System

Base Unit Features

- Pre-treatment
- Flow equalization
- Aerobic biological treatment
- Membrane filtration with industry leading ZeeWeed® 500S membranes
- Sludge storage and thickening
- Advanced telemetry for remote control, monitoring & diagnostics
- Equipment or treatment train redundancy
- Low power, sludge production, and chemical consumption
- Pre-engineered for fast delivery
- Quality controlled factory assembled and tested
- MET/MET certified

Adders & Options

- Customized process design, tankage and equipment sizing
- Biological nutrient reduction, MLE process for denitrification
- Biological nutrient reduction, 4-stage bardenpho process for denitrification
- Coagulant dosing for phosphorous reduction
- UV disinfection
- Critical spare parts package
- Turbidity monitoring
- Sludge dewatering
- Increased chemical storage
- Building exterior finish (selection of colors, siding, roofing)
- Annual newtN™ service agreement

Flexible Tankage

The Clear³ MBR.ST Series is designed for use with a variety of in-ground tank configurations. This flexibility allows the benefits of a pre-engineered product, while using the best available tank configuration based on project specific site conditions and availability of labour and materials.



Fiberglass

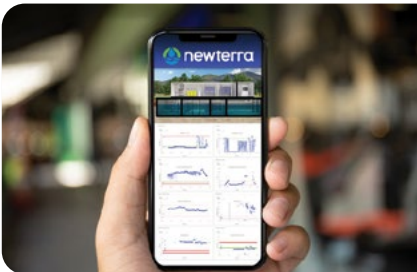
- 10' diameter FRP tanks provided by Newterra
- All in-tank components are factory installed prior to delivery
- Minimal mechanical and electrical site-work
- May not be suitable for all flow/loading conditions

Pre-Cast Concrete

- Pre-cast concrete tanks provided by Newterra or supplied locally
- Some mechanical and electrical site work
- All in-tank components are shipped loose for installation at site

Poured Concrete

- Poured in place concrete tanks supplied locally
- Smallest footprint of the tankage options
- More civil engineering and on-site civil, mechanical, and electrical work required
- All in-tank components are shipped loose for installation at site

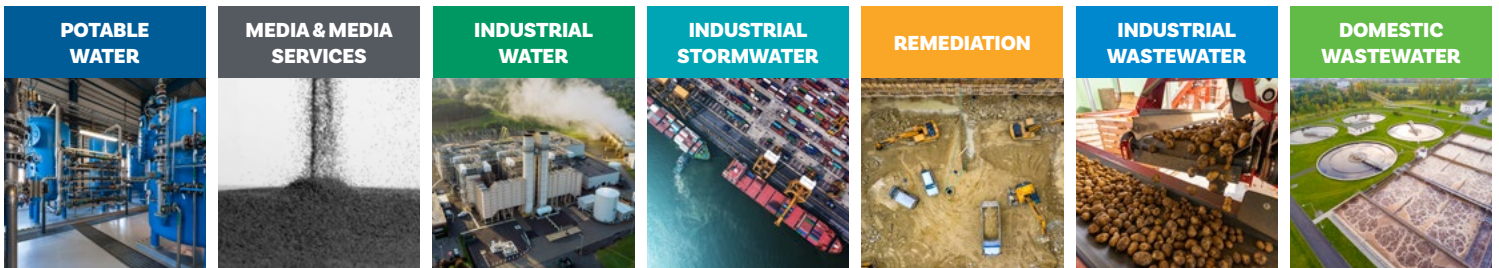


SiteLink Advanced Remote Monitoring & Control

- Advanced cloud-based data acquisition and control
- Bank-level security
- A real-time link to the treatment system familiar HMI screen
- Email/text out upon alarm and a daily system status report
- Operating data is collected and available for download from the customer portal or locally at the HMI
- The customer portal also includes other useful information at your fingertips including manuals, troubleshooting guides, parts lists, etc.

What's Your Unique Water Question?

Contact us today at +1 800.420.4056 or visit us online at newterra.com



From Source to Solution – Choose Newterra

Your trusted partner for comprehensive environmental solutions

With **technology brands whose histories expand back for more than 150 years**, Newterra has steadily grown from its roots to become a global solutions provider in water and wastewater treatment. Our journey is a testament to our deep understanding of the multifaceted challenges across various markets and applications.

Our “One Newterra” ethos is a commitment to providing a comprehensive array of technical solutions, ensuring we address the full spectrum of our clients’ needs. This dedication extends beyond technology, as we nurture enduring partnerships with our clients, standing by them throughout every phase of their challenges. At the heart of Newterra is our unwavering commitment to sustainability.

Our people, our technologies and our practices contribute meaningfully to a sustainable and brighter future.



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