



Wastewater Treatment & High Quality Discharge for Small Communities

Newterra Offers Scalable, Cost-Effective Solutions For Development Projects



Newterra Value Proposition

- Pre-fabricated modular facilities
- Scalable
- Rapid deployment
- High quality effluent



Customer Need

Prospects are facing financial or logistical barriers to providing regulatory-compliant sewage treatment to serve a development project or to replace or supplement existing treatment infrastructure. Challenges can include:

- Lack of proximity to existing “big pipe” collection system
- Insufficient capacity at the serving treatment plant
- Immediate capacity requirements don’t warrant the capital expenditures of full scale build out
- Limited space, an out-of-compliance treatment system
- High cost and potential delays of stick-build construction
- Need for permeate that’s suitable quality for reuse or direct discharge

Newterra Solution

- Modular membrane bioreactor (MBR) sewage treatment system
- Scalable in phases as capacity requirements grows to preserve capital
- Easily transported and rapidly deployed
- Minimizes civil costs and on-site construction
- High quality permeate meets strict regulatory requirements
- Wide range of discharge options and reuse applications

Differentiation

Newterra systems:

- feature **conservative engineering** based on thorough understanding of influent quality and effluent requirements
- are designed from **proven, standard modules** but uniquely tailored to the **individual customer’s need**
- are compact, self-contained, **pre-built and pre-tested** for fast deployment and startup
- feature a lower, phased installed cost for more reasonable capital deployment
- incorporate proven, **reliable MBR technology** to accommodate variations in flow and loading rates
- are built to very **high standards** for **long-term performance** and simplified maintenance.
- ship **complete facility** with all necessary climate controls for any geography
- feature newtN SCADA to simplifies data logging, remote monitoring and control



Membrane Bioreactor (MBR) System

Compact Wastewater Treatment For Commercial Poultry Operations

Specifications – Flexible Building Block Designs

System Name	Enclosure	Tankage	Capacity GPD	Capacity m ³ /Day
N-MBR 7	8' x 20'	Incl: Internal	1,800	7
N-MBR 12	8' x 40'	Incl: Internal	3,200	12
N-MBR 50	16' x 40'	Incl: Internal	13,200	50
N-MBR 100	24' x 40'	Incl: Internal	26,400	100
N-MBR 125	8' x 120'	Incl: Internal	33,000	125
N-MBR 250	16' x 40'	Engineered	66,000	225
N-MBR 500	16' x 40'	Engineered	135,000	500
N-MBR 750	32' x 40'	Engineered	200,000	750
N-MBR 1600	Custom	Engineered	420,000	1600
N-MBR 3200	Custom	Engineered	850,000	3200
N-MBR - Cust	Custom	Engineered	>850,000	>3200

- Engineered Tankage may be containerized, in-ground (concrete or fiberglass) or above ground bolted steel or other and is custom configured for the application
- Enclosure sizes do not include tankage if tankage is noted as Engineered
- Configuration may vary depending on:
 - Redundancy Requirements
 - Variability in flows or seasonality (turndown)
 - Influent strength
 - Outlet criteria, especially P and TN
 - Climate conditions
- Sludge treatment options available and can be built in to system
- Enclosures can be finished to match customer specification
- newtN SCADA system for data acquisition, offsite control, alarm monitoring and more

Exceptional Effluent Quality

Constituent	Typical Effluent
BOD ₅	<2.0 mg/L
TSS	<1.0 mg/L
NH ₃ -N	<0.5 mg/L
TP	<0.05 mg/L
TN	<3.0 mg/L
Turbidity	<0.5 NTU

Accommodates Wide Flow Variations

