



## MBR Sewage Treatment Plant



## Talbotville Municipal System (Septic to Sewer)

**Industry:** Small Municipality

**Location:** Ontario, Canada

**Capacity:** 132,000 GPD (expandable to 317,000 GPD)

**Installed:** 2017

Newterra helped the Town of Talbotville with a new decentralized treatment system to support the rapid residential development in the area. The Town is currently on septic tanks and is transitioning over to the new municipal system.

### Project Background

The small Township of Southwold (Ontario) was working with three different developers to expand a neighbourhood consisting of 500 existing homes with plans to add an additional 2,000 new homes. To do so, they needed to find an economical and practical solution, as there was no municipal infrastructure to support and service this new development over time. In short, they needed a system that would be economically feasible for their rate of development. They knew that the development fees would have to cover the capital cost as well as sustain operating costs going forward for the complete development

### Newterra Solution

The township began by commissioning an Environmental Assessment, which recommended a traditional “bricks & mortar” wastewater treatment plant. Unfortunately, this recommendation came with a cost of upwards of 10 dollars (CAD). This was not seen as a viable solution. As an alternative, the township’s engineering firm suggested they investigate a Newterra (MBR Wastewater Treatment Facility. Newterra’s “building block”

approach could offer them lower upfront costs and, because these pre-fabricated systems come pre-manufactured and delivered onsite, they can be installed in a fraction of the time of a traditional system, saving the developer both time and construction costs. Permeate is drawn through the membrane under a slight negative pressure.

*“We knew we had to grow... when going through the selection process, Newterra was heads and shoulders above the rest. Our engineering company was very familiar with Newterra and comfortable with the product that it produced. It’s been a really great process, working with Newterra.”*

*Mayor Grant Jones, Southwold Township*

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Case Study

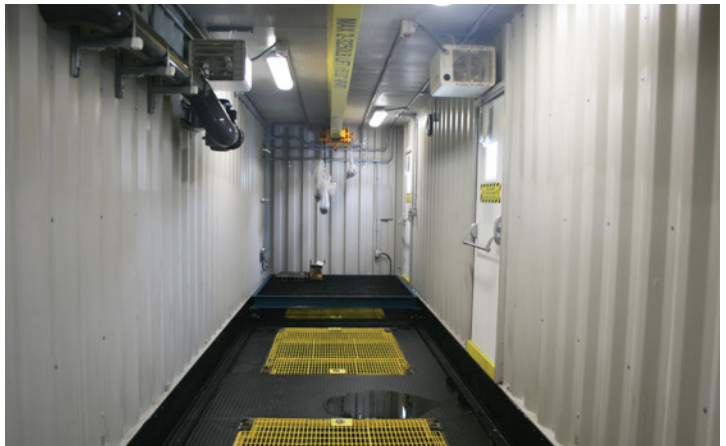
## Project Profile | Domestic Wastewater Treatment – Brockville, Ontario, Canada

The township felt that Newterra's "building block" approach to decentralized wastewater treatment could easily be more economical for their rate of development. Part of what makes these modular facilities so effective is that it enables responsible growth, where the services and costs remain proportional throughout the life of the project. This is achieved by designing the facility for the full-build demand and breaking it into modular phases and installing them incrementally as required.

The community was ecstatic to learn that the cost of the project was a "pay-as-you-need" type, opposed to paying the total cost upfront of a traditional "bricks & mortar" system. Installing the seven units took less than a day, with cladding and finishing touches added afterwards. The completed system was able to achieve high quality effluent standards,

meeting strict surface water discharge criteria. The treated wastewater would be treated and then discharged into a neighboring pond, situated behind the community. Since the wastewater plant was going to be integrated into the surrounding residential community, odor and sound attenuation were a must. To address this, the Newterra MBR system came with an odor control system for odor and acoustic tiling was used to line the walls and ceilings to combat noise. In addition, the louder machinery were all located in the same module, to contain the sound. The end result was that standing outside this facility was comparable to standing near a residential air conditioning unit with no detectable odor.

Since the system was modular the installation and start-up of the wastewater plant took less than two (2) weeks.



*The Newterra fully-clad system in the small Township of Southwold, came complete with odor & noise attenuation, due to its proximity to the development and surrounding green space. The first system was designed with a capacity of 500 m<sup>3</sup>/day (132, 000 GPD), with the option of being expandable to 1,200 m<sup>3</sup>/day (317, 000 GPD).*

### A Recognized Leader in Modular Treatment Solutions

Newterra designs, engineers, manufactures and supports modular water, wastewater and groundwater treatment systems for industry, private development and municipalities. Our 200+ employees are based in Canada, United States, and Germany.



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