



HOMES

These new homes in Pickering are Canada's first to recycle water using a locally-developed system

By [Tracy Hanes](#) Special to the Star
Wed., Aug. 5, 2020 | 5 min. read

Fill eight drinking glasses with water from your tap. Now dump them down the toilet. That may seem wasteful, but that's typically what happens every time we flush and wash 4.2 litres of drinking water into the sanitary sewer or septic tank.

But 21 new homes at [Geranium Homes' Edgewood](#) community, in Pickering, will allow each new owner to save approximately 30,000 litres of water a year. Each of the homes will be equipped with a [Greyter HOME](#) system that will recycle water from showering and bathing to flush toilets.

It's the first time that an entire subdivision in Canada will have a water recycling system and this made-in-Canada system has a stringent National Sanitation Foundation/American National Standards Institute 350 certification, required in most U.S. jurisdictions as the emerging standard for residential greywater use. The recycled water is odourless and almost at potable (drinking) level.

"The rule of thumb is the water from two showers will cover 100 per cent of the toilet-flushing needs for a family of four" on an average day, said John Bell, co-founder of Greyter Water Systems and vice-president of business development. About half of a home's water use happens in the bathroom, with 30 per cent used for showering/bathing and another 20 to 25 per cent used to flush toilets. The Greyter HOME system — named Best Green Building Product at the International Builders' Show in Orlando, Fla., in 2017 — reduces water use by up to 25 per cent in a family home.

Bell, a former sports broadcaster and builder, became passionate about energy efficiency and conservation after serving as host of HGTV's "The World's Greenest Homes," from 2008-09.

"That TV show was life-changing," he said. "We sold our monster home that we could barely afford and built a smaller LEED certified (Leadership in Energy and Environmental Design) home in Toronto."

Bell, a former sports broadcaster and builder, became passionate about energy efficiency and conservation after serving as host of HGTV's "The World's Greenest Homes," from 2008-09.

"That TV show was life-changing," he said. "We sold our monster home that we could barely afford and built a smaller LEED certified (Leadership in Energy and Environmental Design) home in Toronto."

Bell, who now lives with his family in Tottenham, says it's taken his company eight years to develop a greywater recycling system for the residential sector that's compact, cost-effective, and easy to install and operate.

Geranium, a building company keenly interested in sustainability, had installed rough-ins for greywater recycling at some of its earlier new-home builds. Geranium then opted to install the Greyter system, one they'd been watching, as a standard feature in the firm's Edgewood community. The four-bedroom executive homes that start at \$1.2 million, on 40- and 50-foot lots next to protected woodland in Pickering, feature slab-on-grade construction rather than basements and provide for three fully finished levels.

"Water-saving systems used to be intimidating and required doing things such as burying outdoor tanks," said Boaz Feiner, president of Geranium Homes. "As a production builder, that made me nervous."

But Feiner's reluctance was overcome by the Greyter HOME's system — about the size of a hot water heater with minimal fittings and a straightforward installation.

"There is only one touchpoint a year required for the system," said Bell. "We will have service contracts for homeowners so we can take care of everything. We had to have extremely reliable and user-friendly technology."

The City of Pickering supported the Geranium-Greyter initiative; it has a goal to become one of the [most sustainable cities](#) in Canada. The city hosts an annual sustainable workshop series for builders, designers, municipal staff and other stakeholders to network and find solutions to save energy and conserve resources. The Edgewood site will serve as a showcase for greywater recycling that other builders and municipalities can learn from and adopt.

"We wanted to do a pilot and see what the opportunity was," said Feiner. "It's important to see the greywater recycling system operating in actuality. We, as an industry, concentrate a lot on energy efficiency but we are still at the preliminary stages of water conservation."

"Just because Ontario is a water-rich province doesn't mean we can't be leaders," Feiner added.

"There is a clear connection between energy saving and water conservation," says Chantal Whitaker, supervisor of sustainability for the City of Pickering. "Geranium's the first subdivision builder to install a greywater system and it will reduce the load on infrastructure and benefit the homeowner."

Geranium recently won a City of Pickering Sustainable Community Award. Whitaker says the award goes to those who have made a significant contribution to the community in terms of sustainability.

Bell says consumers are unlikely to drive the demand for greywater recycling, as water is still inexpensive and the system is priced just over \$5,000, so the payback takes 10 years or more. However, if water costs rise by 8 to 15 per cent annually, "one day there will be reasonable payback." At present, the technology will be moved forward by municipalities and builders, he says, as it reduces the burden on municipal infrastructure.

"There are municipalities that are close to capacity on sanitary sewers," said Bell. He noted others, such as Guelph and York Region, are dealing with water supply concerns.

Many U.S. states have severe water problems and Greyter recently received \$3 million in equity funding from Lennar Ventures, the investment arm of one of the largest home-building companies in the U.S.

"We are seeing climate change at a rapid pace," says Kyle Bentley, Pickering's director of city development and chief building official. "The boardwalk at Millennium Square (a public square adjacent to Lake Ontario) and part of the trail that connects our waterfront communities were devastated by flooding. We are looking at resiliency measures and measures that are proactive (to mitigate flooding damage).

"Water is an important resource and if we see consistently hot days, we have more drought-related issues. Any opportunity to conserve water and put it to other uses is a positive," added Bentley.



Tracy Hanes is a GTA-based writer and a freelance contributor for the Star. Reach her at tracyhanes@yahoo.ca

Edgewood by Geranium Homes

Location: Woodview Ave., just west of Altona Rd., Pickering

Homes: 21 executive houses, 3,238-3,990 sq. ft., 40- and 50-foot lots, with architectural stone and brick exteriors.

Features: Three finished levels with slab-on-grade construction; Greyter HOME system that recycles shower and bath water to flush toilets; garage parking for three cars; 9-foot main-floor ceilings; engineered hardwood floors; coffered and tray ceilings; gas fireplace; granite counters; some layouts have pantry and server. Priced from \$1.2 million. Expected occupancy summer 2021.

Area amenities: Pickering Town Centre, Frenchman's Bay waterfront, Rouge Hill and Pickering GO stations, Altona Forest, Centennial College Morningside campus, University of Toronto's Scarborough campus.

Website: www.geranium.com/pickering-edgewood/