

GREEN TECH THE SERIES COLUMN FOR SPETMEBER 30, 2015  
HEADLINE: ANOTHER SPA FEATURE; RECYCLED GREY WATER

While I have not heard the comment as yet, “Does someone have to take a shower, before I can flush the toilet,” at some point I expect a guest to smile as they make this comment. With the limited public knowledge on this subject, I will not be surprised. Grey water recycling has been around for years; typically very high-end systems with the accompanying price tag, but this has changed.

Depending upon the system, a couple of showers a day can provide an average family enough water for the day’s toilet use. While I have heard various comments about collecting dishwasher water, clothes washer water and water from some sinks, this is not common. The most recent recommendations are using shower water and the bathroom sink, in some cases. Collection of this grey water can be used for irrigation as well, however; it’s not restricted to toilets, provided it’s treated.

Where you live can be a factor, too. In Ottawa, water bills can reach over \$600.00 annually. Same goes for smaller cities like Kingston. Out west, Vancouver specifically, water costs are much lower, less than \$200.00 for an average home. We have become blasé about potable water and this has created some major capital costs for municipalities. Kingston, for example, spent a small fortune on Ravensview, their most recent state of the art water treatment plant. It is very efficient and utilizes some world renowned technology, but it still has a cost.

Let’s debunk one issue; grey water is not used for drinking, cooking or any personal hygiene. The equipment that provides this recycled water has to have a designated water supply line. These lines are colored purple to identify them to a tradesperson, so there is no chance of “tapping in” to a water line for an upgrade or addition in a home. In a city home, where the water bill is high, you can reduce your water usage upwards of 30-40%, which reflects a substantial savings. In a rural application such as ours, the benefits are obvious; this represents a huge reduction in the volume of water going to the septic system.

You don’t have to go to the full dollar system; there are a couple of smaller systems and one excellent mid-range that we utilized in the spa. One such smaller system is called “AQUUS” and it provides water from your bathroom sink to the toilet. The only catch is that a vanity cabinet is recommended to hold the purification tank. They are a neat, reasonable cost system, installed they run under \$500.00. Caroma, who brought dual flush toilets to the mass market also have a neat idea, a sink mounted on the back of the toilet to wash your hands

after using the toilet. The catch here is that you will need some space at the side to comfortably reach the sink on the top of the toilet tank.

When I began the design of the B&B/Spa some many months ago, the main objective was to make it as energy efficient as possible, which we did. It's wrapped in a full, closed cell spray foam blanket. The next objective was to do something about the expected water use in the spa, which has two showers and a toilet, along with a full bathroom in the B&B portion. I researched a number of alternatives and kept coming back to one of the most compact, efficient and reasonably cost package units on the market, the "Recover Greywater Recycling System." We got it running a couple of weeks ago and are pleased with the unit. It is located in a small "cellar." Due to the fall of the showers, we had to install a pump up along with the Recover unit. We were grateful the "Recover" unit was so compact. Our plumbers from Valley Plumbing in Perth really grasped the project and their senior plumber, Chris, stayed on the job as we brought this unit on line; special thanks to Chris. Valley Plumbing was very excited about this unit, seeing the long term possibilities of septic tank volume reduction. If you are located in the area from Pembroke to Perth, Chris now has the knowledge to put these in.

To step back, why did we pick the "Recover" unit? In one sentence, the overall package was too good to pass up. We know this unit will save us on water usage; that's a given. I wanted a grey water system that was user friendly and the "Recover" is just that. For starters, the top up of disinfectant is only expected to be once every 4-6 months. Secondly, the tank cleans itself automatically every two days. Further, the "Recover" unit actually "learns" the toilet tank sizes (we have two dual flush toilets) to optimize water savings. For a home, it even has an auto-away mode to preserve the water freshness while you are away. From a cost of operation point of view, the folks at recover expect this unit in a home to use less than 30KWH/year in electrical use.

I would like to extend our appreciation to the folks at Canplas, the parent company for the Recover Unit, and, especially, Product Manager Carl Robb, who was excellent in explaining the system, how the unit works and who worked with us as the install happened. This unit is by far the best greywater recycling package on the market today. For more information go to [www.recoverwater.com](http://www.recoverwater.com). It's an excellent web site that has clear instructions on how the unit works and all the technical data needed. Plumber Chris can attest to that.

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