

Gray water recycling

By [Gary Silverstein](#)

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Water is often overlooked for its critical role in sustaining human life, but we can no longer take this precious resource for granted. Our area is challenged periodically with near-drought conditions, and conservation of this valuable resource is critical for present and future stewardship of our wonderful home. With this in mind, finding ways in which we can use less water is vital.

According to the Environmental Protection Agency (EPA), a typical U.S. family of four can use 400 gallons of water every day. The majority of this water is used in the bathroom. In fact, the toilet alone makes up as much as a quarter of all household water use.

Since so much domestic water gets used in the bathroom, this space holds the most opportunity for gray-water recycling.

Gray water is the leftover water from showers, sinks, washing machines, and any other water-using fixtures in the home. The only exception is wastewater generated from the toilet. This is referred to as "black water." Typically, household wastewater (gray and black) is piped into a septic or municipal sewer system. But because gray water does not contain the severe contaminants found in black water, it has the potential to be reused inside and outside the home.

A safe and easy place to use recycled gray water is in the toilet. Gray water, drained from appropriate household fixtures into a filtering tank, could be redirected into the toilet tank. It is critical to have the gray water pipes clearly marked to avoid contamination caused by any plumbing mix-ups at installation or in future projects.

While installing this may seem like a DIY project, I strongly recommend contacting a licensed plumber with gray-water recycling experience to make sure the job gets done correctly. A rookie mistake could potentially contaminate your home's drinking water.

There are many other ways to conserve water in the home, including installing low-flow shower heads and faucets that significantly reduce the gallons per minute used without a homeowner ever noticing. Hot-water circulating pumps also do an excellent job in eliminating the need to run the water for a long period of time, waiting for it to get hot.

Around the outside of the home, rain barrels do an excellent job at catching roof water that can be redirected to irrigate plants and gardens.

And let's not forget that personal habits are an essential component in the grand picture of human water usage. While I am not suggesting we compromise our hygiene (a bath every Saturday whether we need it or not), we should all be aware of and responsible for how much water we use.

Gray-water recycling is an under-used but highly effective way to help meet our responsibilities as stewards of our environment. Let us not take water, this precious life-sustaining resource, for granted, and let's all pitch in to use less water. Stephanie Krantz contributed to this article. She is a Greensboro Day School graduate and rising sophomore at Tufts University, where she is majoring in Environmental Studies and Peace and Conflict Resolution.