

**Answer:**

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Although I cannot recommend any specific brand, I would like to share some information about composting toilets and web links.

First of all, one cannot think about installing a composting toilet without addressing greywater treatment as well. In my previous job with the Thurston County Environmental Health Department, the greywater issue was frequently overlooked by homeowners inquiring about composting toilets.

Greywater comes from bathtubs, showers, sinks, dishwashers, and washing machines. It makes up the largest portion of household wastewater and can contain bacteria, bleach, high pH, hot water, nitrates, oil and grease, food particles, soaps, and suspended solids. Even if biodegradable/organic cleaning supplies are used, greywater can still contain chemicals harmful to plants and water bodies if it's not treated before discharge.

If you plan to install a composting toilet, check with your jurisdictional permitting and environmental health department<sup>1</sup>. Ask about the best method to treat greywater for your site's condition and consider soils, proximity to an aquifer or surface water bodies, and residential and public wells. You may need to adjust your budget to include both treatment systems: composting and greywater.

The Washington Department of Health offers additional information on greywater treatment, including greywater pros and cons and plant choices for treatment:

- [Water Conservation Using Greywater Factsheet \(printable PDF\)](#)
- [Water Conservation Using Greywater Factsheet \(on-line version\)](#)

There are many composting toilet designs and sizes available. The required maintenance varies, depending on the model. On average, these systems require a larger commitment from homeowners than a conventional on-site septic system.

In Washington State, all on-site treatment and distribution products must be registered with the Washington Department of Health. Check out the ***"List of Registered On-site Treatment and Distribution Products"*** available on the DOH website at <http://www.doh.wa.gov/ehp/ts/WW/registered-list.doc>. (Composting toilets are listed under *Category 3 treatment products, p. 16-18*)

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<sup>1</sup> Some jurisdictions require a connection to the public sewer system (if available) prior to issuing a building permit. In this case if you intend to treat all your wastewaters on-site, a public sewer waiver or / and variance would need to be obtained in addition to an on-site septic permit.



**Other useful links:**

**US EPA's Composting Toilets** Comprehensive Factsheet: <http://www.epa.gov/owm/mtb/comp.pdf>

**National Small Flows Clearinghouse** developed a good overview of the composting toilet systems.

The overview can be accessed at:

[http://www.nesc.wvu.edu/pdf/WW/publications/eti/comp\\_toil\\_gen.pdf](http://www.nesc.wvu.edu/pdf/WW/publications/eti/comp_toil_gen.pdf)



On a recent vacation, I visited an eco-resort located in a sensitive coral reef ecosystem, just off Zanzibar Island in the Indian Ocean. The resort uses an elaborate system of composting toilets and greywater treatment. It works really well - there is no discharge of human waste into the reef's waters. Greywater from the showers, wash basins, and kitchen sinks passes through gravel and sand filters and then into an artificial wetland or sealed vegetation bed with plants that can remove large amounts of phosphate and nitrates.

Aerobic composting toilets use no flush water. There is no foul odor thanks to wind powered vent pipes. Resort guests are asked to put a scoop or two of dirt mixed with woody debris into the toilet after each use. Guests don't have to deal with the maintenance, since staff is trained to care for and monitor the system. From the guests' perspective, there is little difference from a conventional toilet.

In addition, the number of visitors staying at the resort is limited to ensure the ecosystem can sustain them without damaging the environment. This is a great example of green technology that has been properly installed, and is maintained and functions as planned.

I hope this information helps.