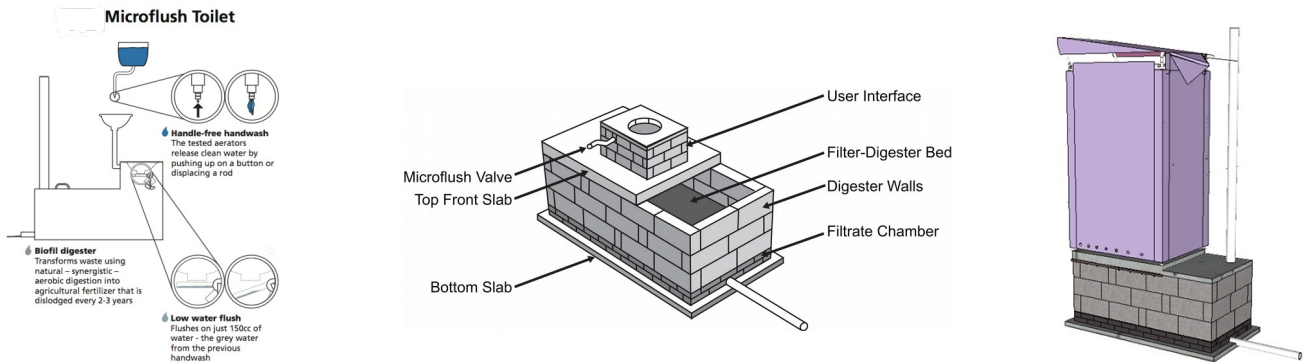
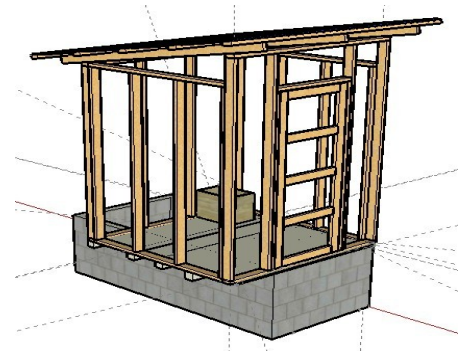


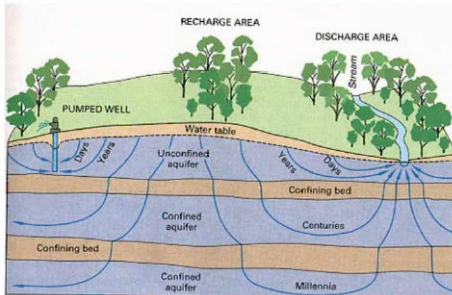
Vermicomposting MicroFlush Privy

The VMP is an off-grid, sustainable, environmentally friendly, low cost, odor- and fly-free toilet that reuses the small amount (1 cup) of greywater from a previous user's hand wash to isolate waste and flush the toilet.



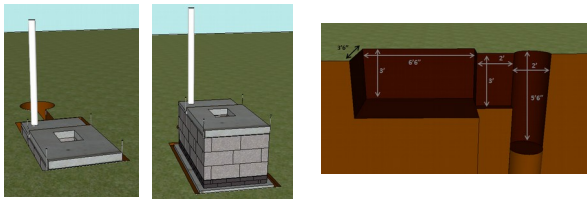
In the VMP, a user's flush of waste directly falls into a filter-digester where the solids and liquids are rapidly separated. The solids are composted in an aerobic process enhanced by simple earthworms (*e-fetida*) found everywhere in the world. The small filtrate volume is processed naturally in a soak hole – a micro version of a rural leaching field in the US. There is no dislodging of sludge or transportation to a waste processing plant. Every 2 years, the rear cover is removed and an organically rich compost is harvested for use in soil augmentation.



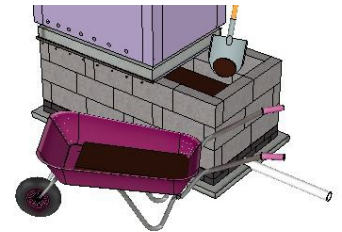
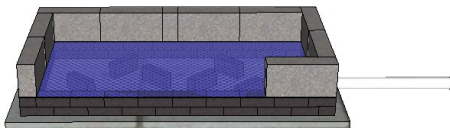


Ideally, the GSAP VMP should be sited in a well-drained location typically with sub-soils that are sandy; in such a case the digester can be placed totally in the ground. Most locations are not ideal and so the installer must place the digester as a depth such that it will never be below the water table, even during the rainy or wet season.

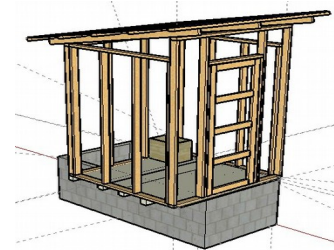
The water table is typically measured as the depth to the groundwater-saturated surface of the subsurface materials in a given vicinity. The water table typically changes with weather and the seasons. Siting of the toilet digester should reflect the highest water table condition that one would find in the location and immediate surrounds of the toilet. It can often be determined by digging a hole and observing the saturation depth.



The heart of the GSAP VMP is a specially designed filter-digester for vermicomposting applications. It begins with the excavation for the bottom slab and proceeds through the slab, two brick layers for the perimeter & brick placements on the slab to support a grate. The filter material is installed to complete the filter system followed by the balance of the exterior walls. When the build is complete, hay and worms can be added.



The GSAP VMP has been designed for many years of effective service. Periodic harvesting of compost, inspection and restarting is needed. Harvesting is roughly every 2-3 years, Restarting is once a year in the Spring, and Inspection should be done bi-month during VMP usage. If system is damaged, digester or UI wall will need to be patched, Ecowise also carries replacement piece for all parts of the system.



The GSAP VMP can accommodate many facility/enclosure options reflecting the budget of the user and the materials that are locally available. Options include: standard masonry and corrugated roof structures and wood structures with paneling on a framed skeleton.



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