



Operation & Maintenance Manual

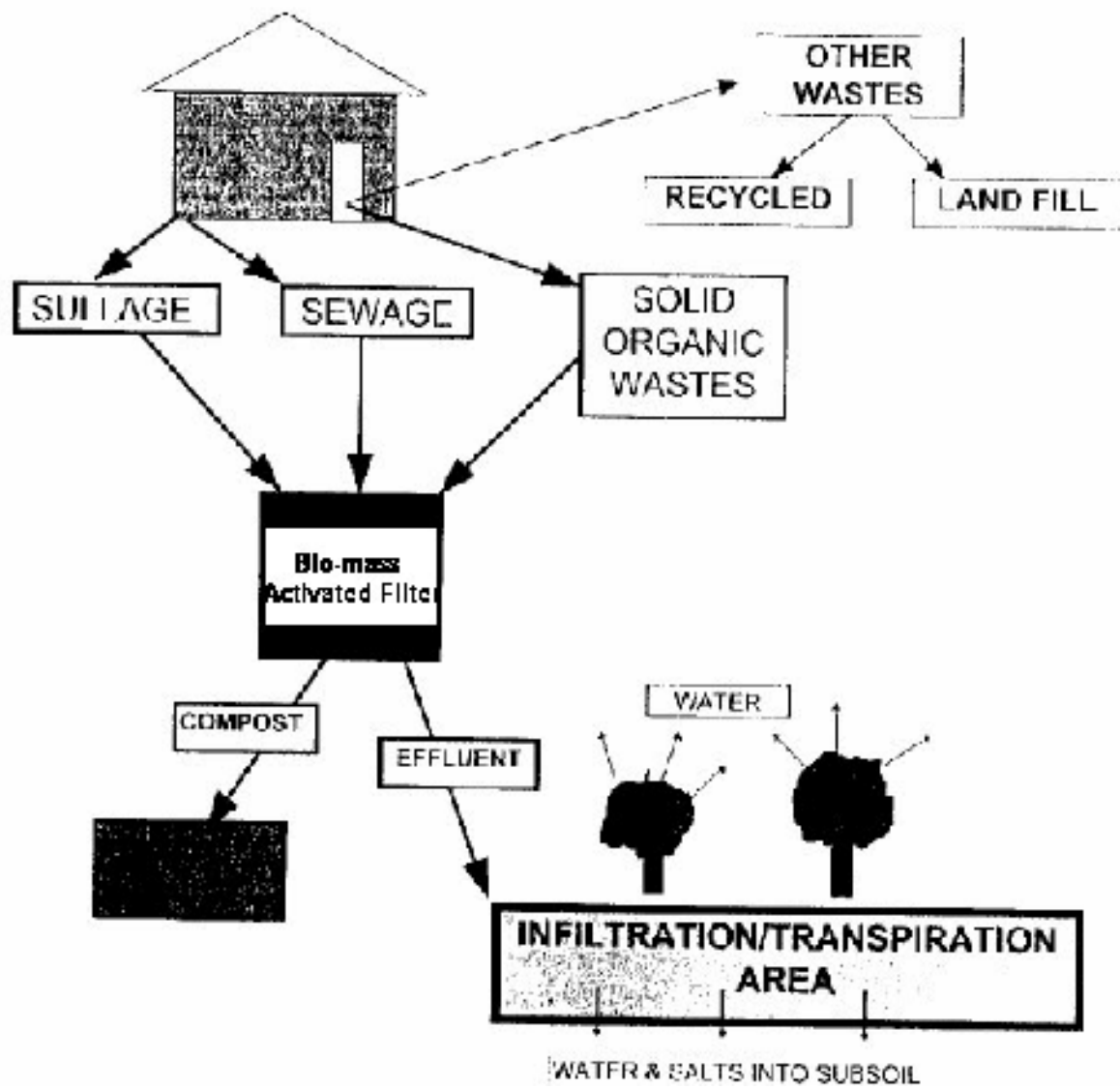
for the

**Bio-mass Activated Filter
COMPOST TOILET**

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SCHEMATIC OF CONCEPT



HOW THE Bio-Mass Activated Filter WORKS

The Bio-Mass Activated Filter simultaneously filters household wastewater and converts organic waste into a valuable soil enhancer using worms and other composting organisms.

The solid organic wastes such as food scraps, waste paper and cardboard are deposited onto the Bio-Mass Activated Filter bed through the Waste Entry Chute.

The wastewater is directed onto the centre of the pile of organic matter which forms below

the Waste Entry Chute. This action aerates and disperses the wastewater evenly over the filter bed. The wastewater in turn, wets the paper and cardboard in the pile and inoculates it with microorganisms, which speed the composting process, and allows Worms to work the pile over.

Most of the particulate matter is filtered out as the wastewater percolates through the fine

filter bed. This bed is kept from blocking by the action of worms, beetles and mites which

continually renew the vast network of pore spaces through the filter bed, so allowing the

effluent to percolate through the filter bed into the drainage and aeration media.

The filtrate is drained from the drainage media in the base of the Bio-Mass Activated Filter chamber to a conventional soil Infiltration/Transpiration system as described in the Australian/New Zealand Standard™ "On-site Domestic-Wastewater Management" AS/NZS 1547:2000

The environment is protected and enhanced as most of the water is transpired while a small amount percolates slowly through the soil layers below the transpiration/absorption area thereby removing excess salts. Microorganisms that could contaminate the ground water are dealt with by natural process in the soil ecosystem.

Bio-Mass Activated Filter TREATMENT QUANTITIES

These acceptance quantities apply to daily usage of the Bio-Mass Activated Filter with .

Filter chamber minimum internal surface area – 2mt²

Solid Waste maximum daily loading rate. Average long term acceptance rate.

- Paper & Cardboard - 1 Kg per day (dry weight) = 8 *EP
- Faecal Matter - 2 Kg per day(wet weight) = 8.*EP
- Wet Garbage - 6 Kg per day (wet weight) = 8 *EP

Wastewater maximum daily loading rate. Average long term acceptance rate

- Wastewater - 1200 litres per day = 8 l-EP

* EP - Equivalent Persons