

How much drinking water does flushing your toilet cost?

Grey water recycling

Drinking water is too valuable and often too expensive to be used for flushing toilets, cleaning floors, washing clothes, and watering gardens. For these purposes service water, made from grey water, is enough.

Grey water is an inexhaustible and advantageous resource, because ...

- unlike rain water, it is produced daily in every household in almost the same amounts
- it is not very polluted and has a low bacteria content, since the waste water from the toilet is led away separately
- over 50% of the drinking water can be saved every day through the grey water recycling plant
- the grey water recycling plant has a long life due to its simple method of construction
- the grey water recycling plant pays for itself within a few years.

All uses are, of course, also dependent on **user behavior**.

In addition, variations occur through:

- the use of water saving fittings and flow limiters,
- the size of the toilet water tank (for example 6 liters), with or without a water-saving button,
- the garden irrigation, which is dependent on the size of the property,
- the amount of water used by the washing machine.

Not only water is saved ...

The cost for a grey water plant for a single family house with 4 persons is around € 4,300, plus value added tax. To determine how quickly your plant would pay for itself, please see the calculation example. Compared to rain collection, much smaller storage tanks are needed and this results in savings not only from drinking water but also from waste water.

This is how simply it works

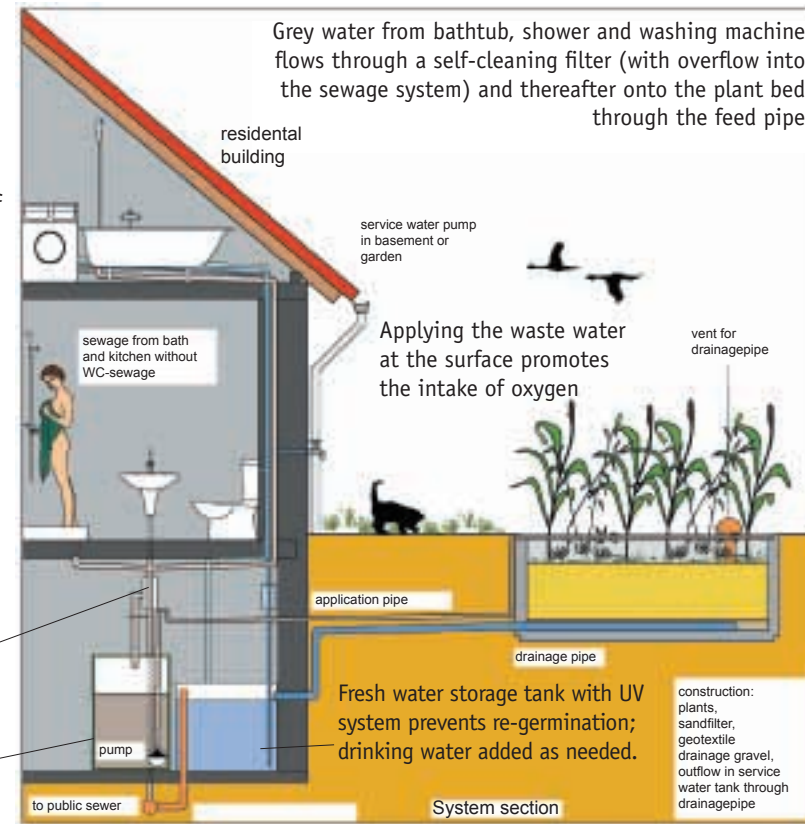
The plant is installed either in the basement or in the garden

Separate network of waste water pipes



Self-cleaning solid matter filter

Grey water storage tank



Grey water from bathtub, shower and washing machine flows through a self-cleaning filter (with overflow into the sewage system) and thereafter onto the plant bed through the feed pipe

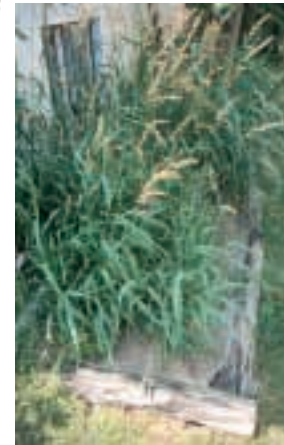
service water pump in basement or garden

Applying the waste water at the surface promotes the intake of oxygen

vent for drainage pipe

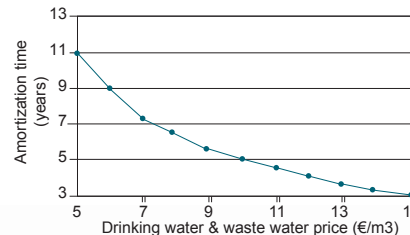
Fresh water storage tank with UV system prevents re-germination; drinking water added as needed.

construction: plants, sandfilter, geotextile drainage gravel, outflow in service water tank through drainagepipe



Plant treatment bed with special substrate, **1 m² / person**, with plants of your choice growing – high cleaning performance (corresponding to the European Union bathing water guidelines), also in winter

Amortization time for a 4-person household;
Assumption: water use 560 liters/day;
Reuse of 300 liters.



The values in the two tables below apply to a 4-person household per day with average water use:

Use of cleaned grey water:

Household area	Use
Toilet flushing	130 l
Garden irrigation	20 l
Cleaning	20 l
Washing machine	80 l
Total household water need	250 l

Average amount of grey water produced

Household area	Use
Dishwashing	40 l
Sinks	20 l
Shower / bath	160 l
Washing machine	80 l
Total grey water produced	300 l