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*Guidelines for the Operation and Maintenance of Septic Tank Effluent Drainage
(STED) Systems by Communities in South Africa* (WRC Project No. K5/708)

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does the local authority do?

The rest of the money is used for :

THE PURCHASING AND STORAGE OF MATERIALS AND EQUIPMENT.

Materials needed are, for example : pipes, cleaning eyes, junctions, manhole rings and manhole covers.

Equipment needed includes sewer clearing rods, pumps, sewer jetting machines, tankers, spades and picks.

OPERATION AND MAINTENANCE OF THE SEWERAGE WORKS

Operation includes all actions which are needed to keep the works running every day, such as clearing of trash screens, controlling inflow/outflow of the ponds or basins, cleaning of filters and operating pumps.

Maintenance actions include servicing of pumps, clearing of reeds from ponds, repairs , etc.

MATERIALS STORE

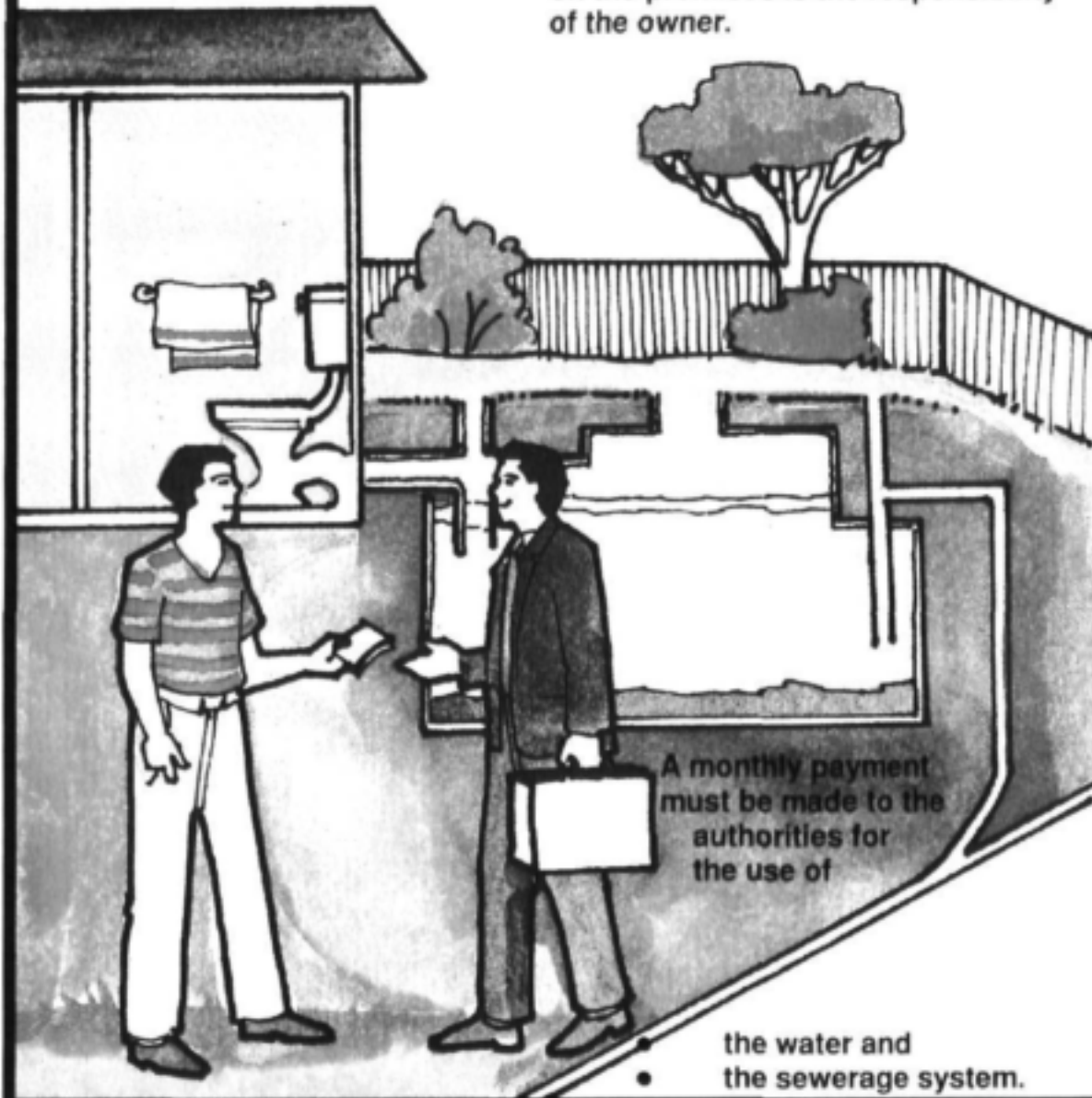
EDUCATION AND TRAINING

Funds should be set aside to train new staff, upgrade the skills of current staff, inform and educate users, etc.

SEWAGE TREATMENT PONDS

Providing sanitation : What

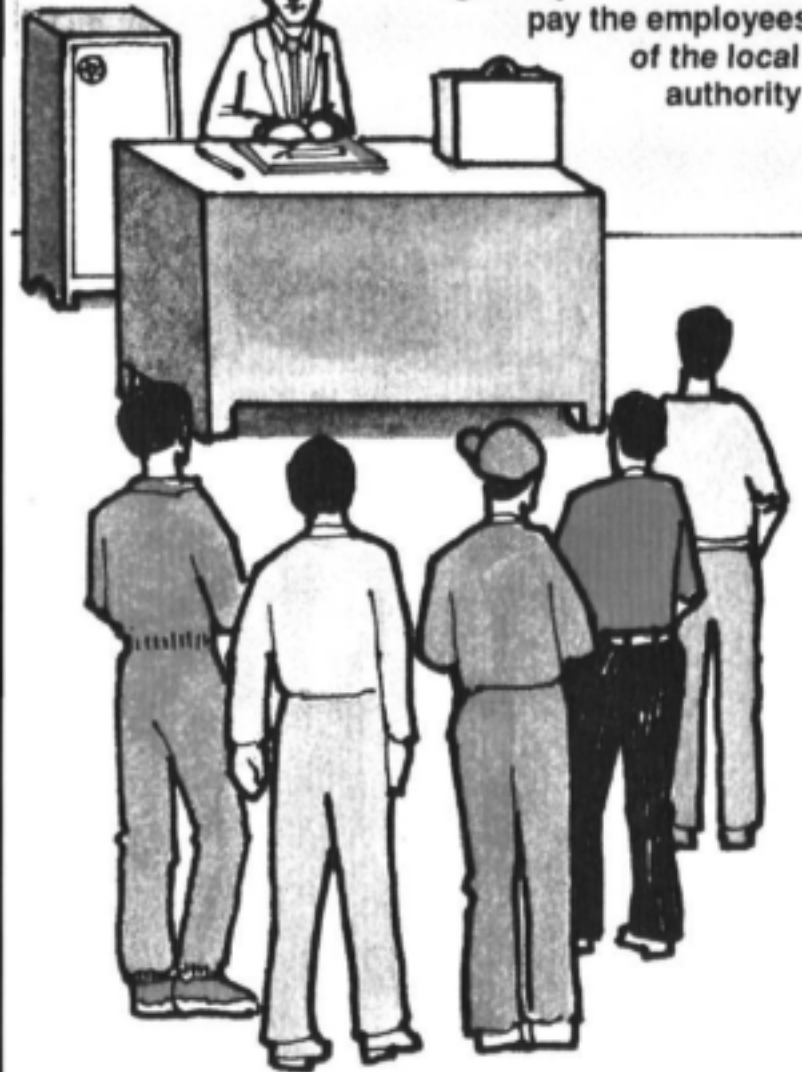
Maintenance of the toilet and solids-free sewer system on the premises is the responsibility of the owner.



A monthly payment must be made to the authorities for the use of

the water and the sewerage system.

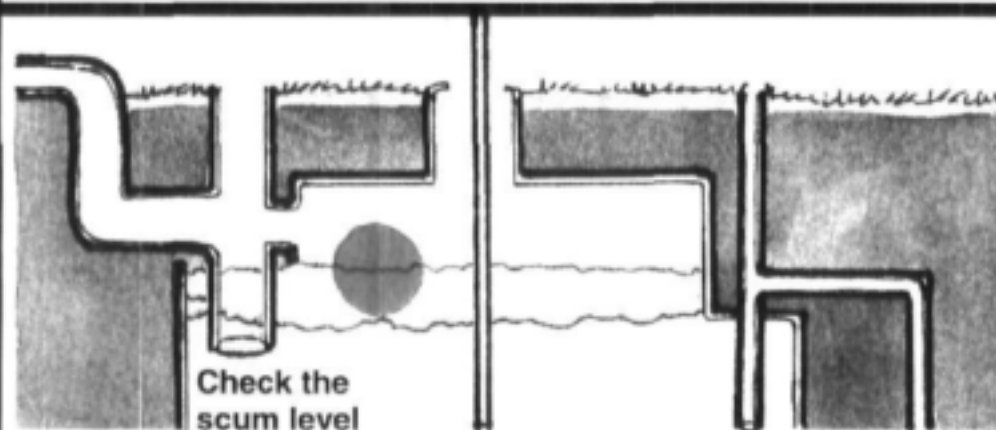
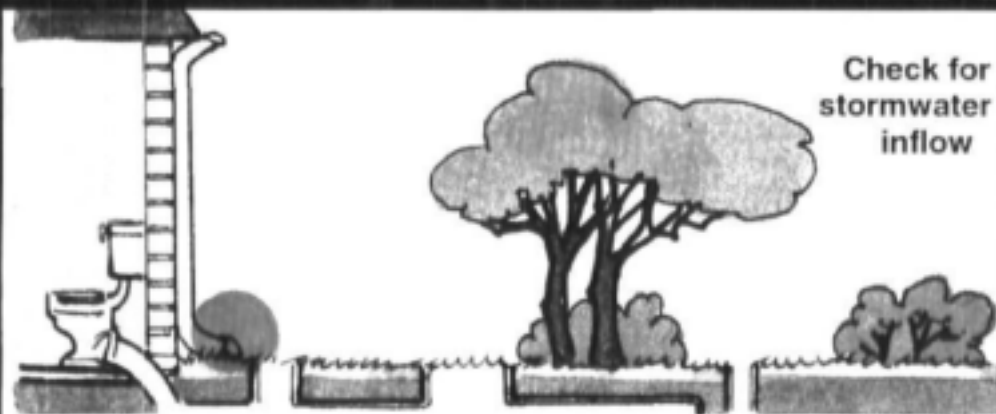
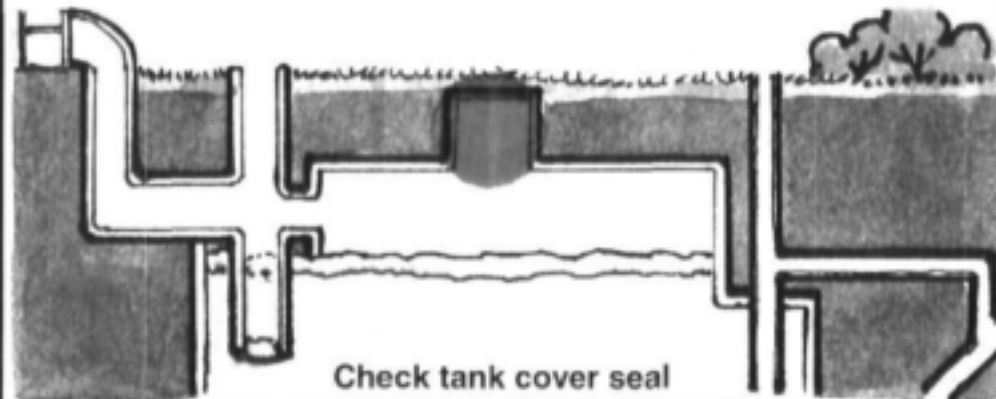
The money from all the owners using the system is used to pay the employees of the local authority



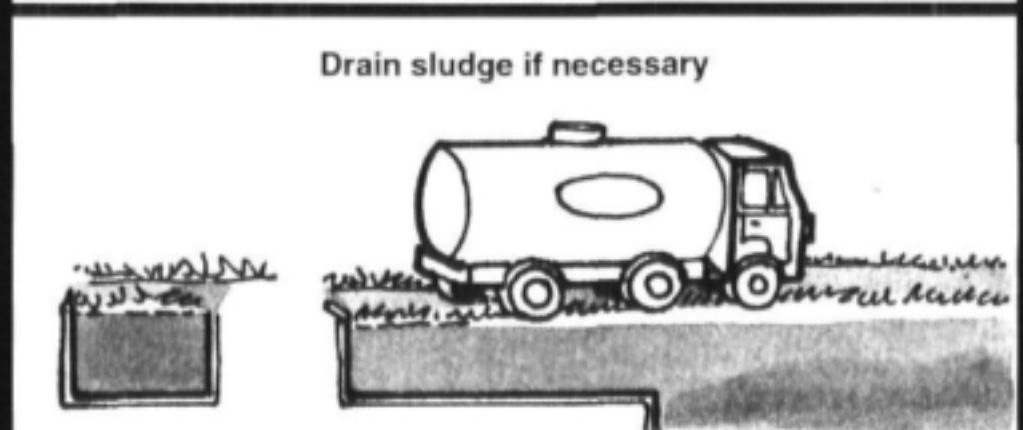
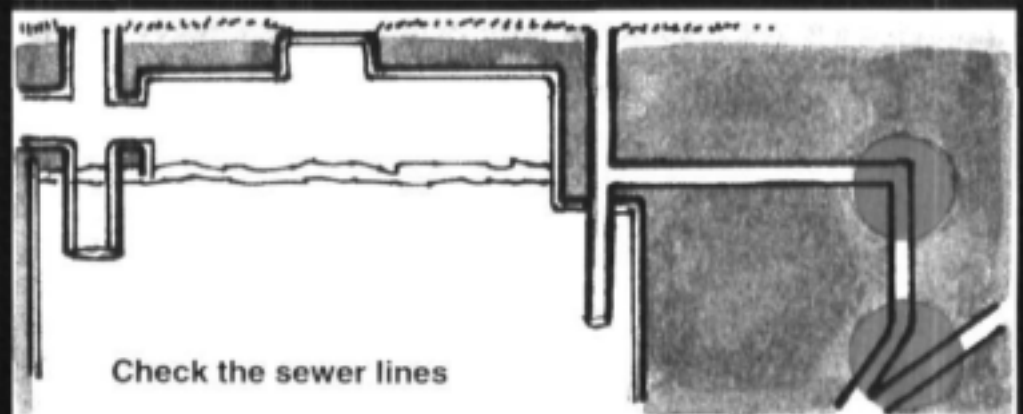
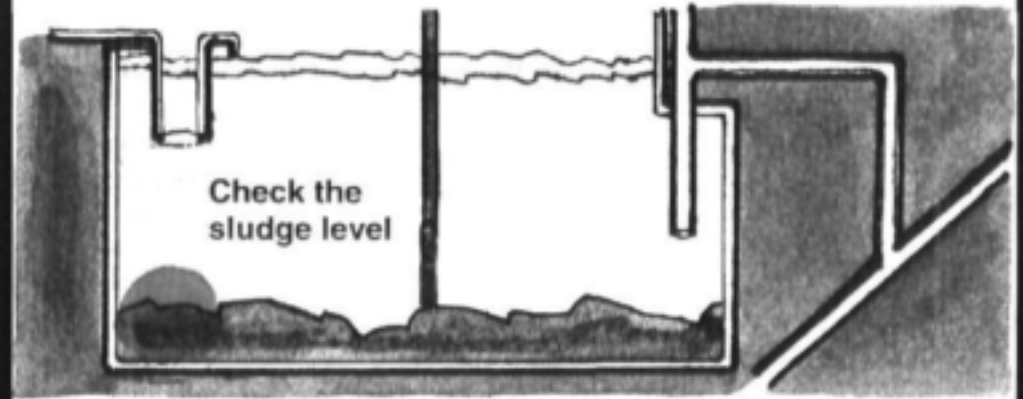
Workers, Drivers
Accountants, Technicians, etc.
are the type of employees
which the authority may require.

problems

Do the following monthly



Do the following once a year



Do the following daily



Flush after use

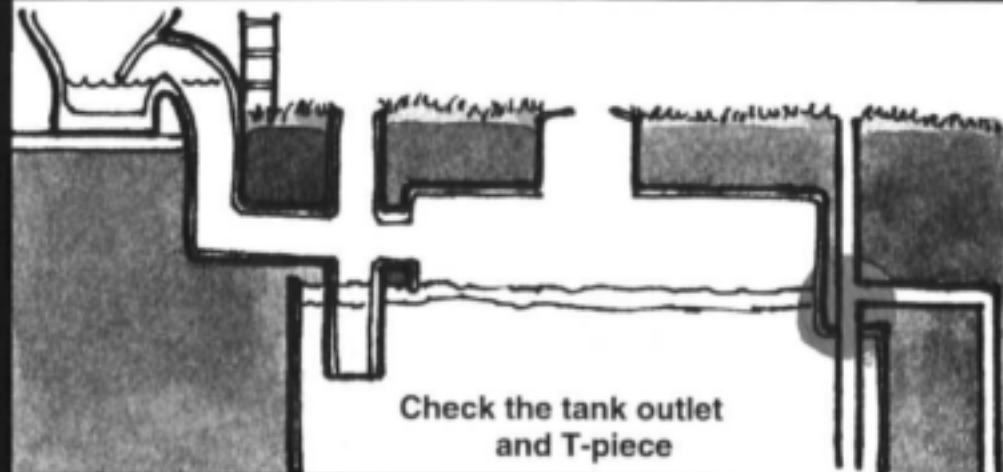
Do the following weekly



Check the grease trap



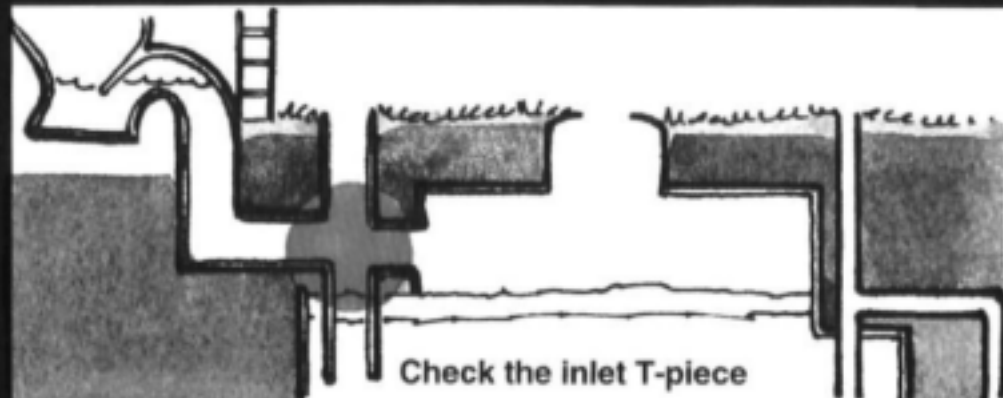
Do not throw
foreign materials
into the toilet



Check the tank outlet
and T-piece



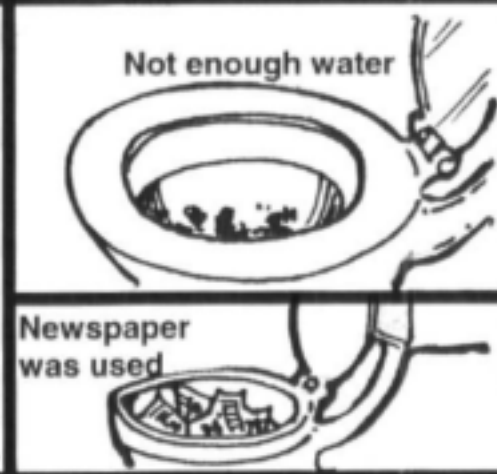
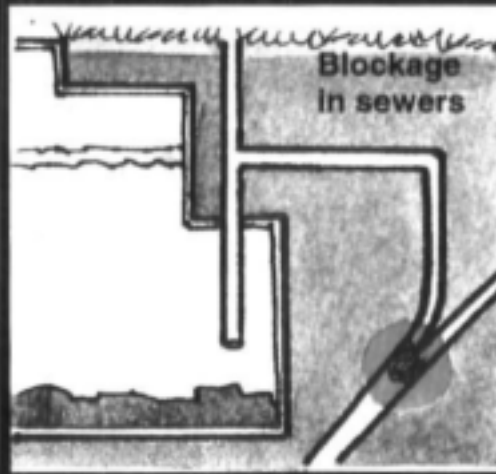
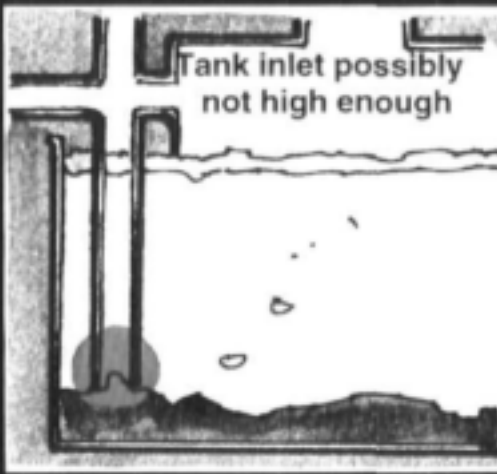
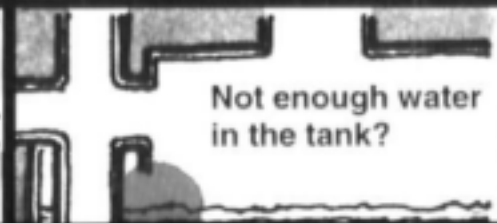
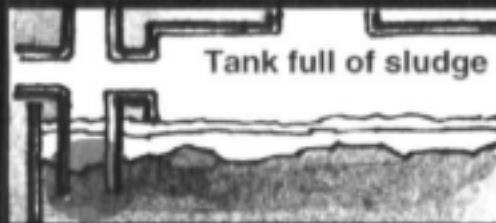
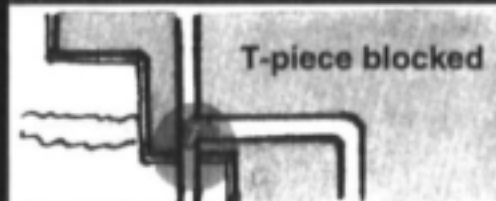
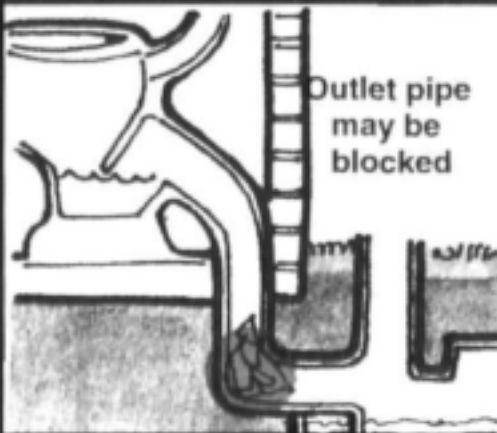
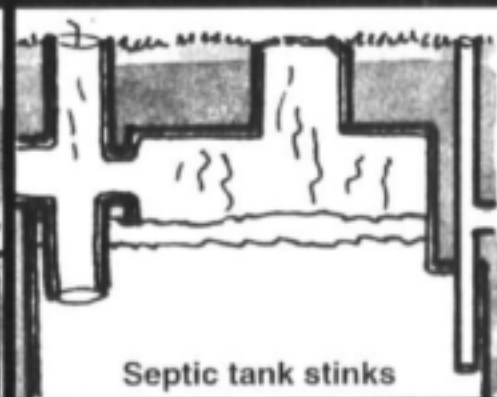
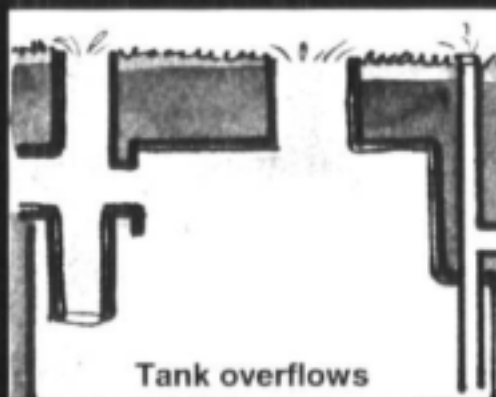
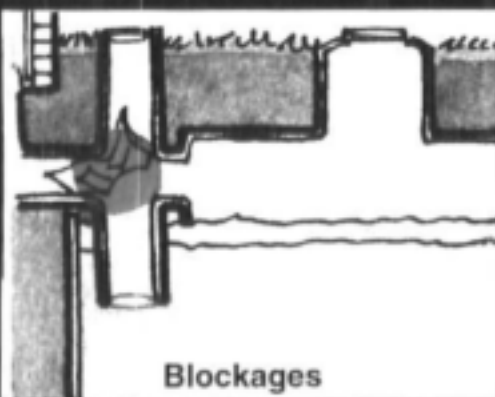
Clean the bowl after use



Check the inlet T-piece

problems

Problems with the septic tank



Problems with the toilet

Pedestal leaks?



Cistern leaks?



Flush does not clear the bowl?



Handle does not return?



Pedestal is broken. Repair or replace.



Repair cistern

Check for blockage.



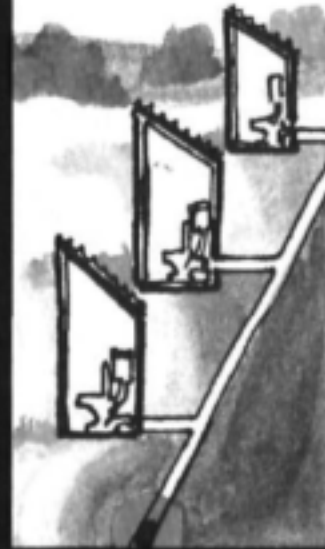
Repair.



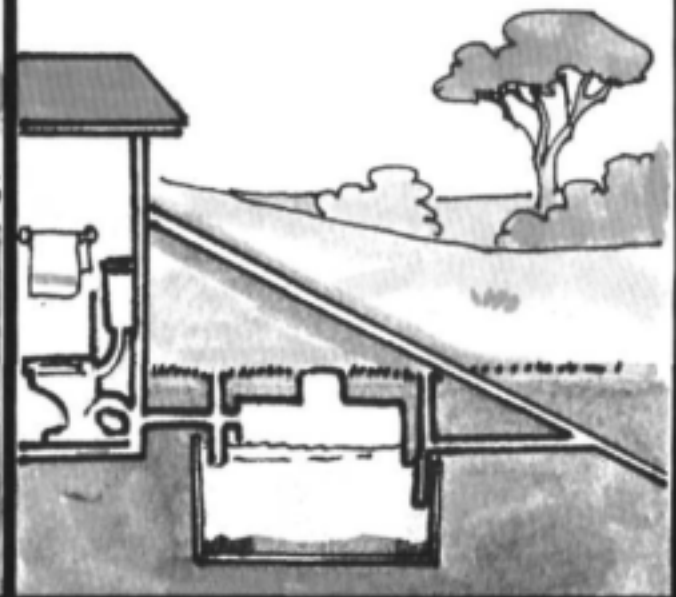
Problems with the sewers

Sewage runs back into the tank, or sewage is running out of cleaning points and manholes.

Sewage does not drain away due to a blockage

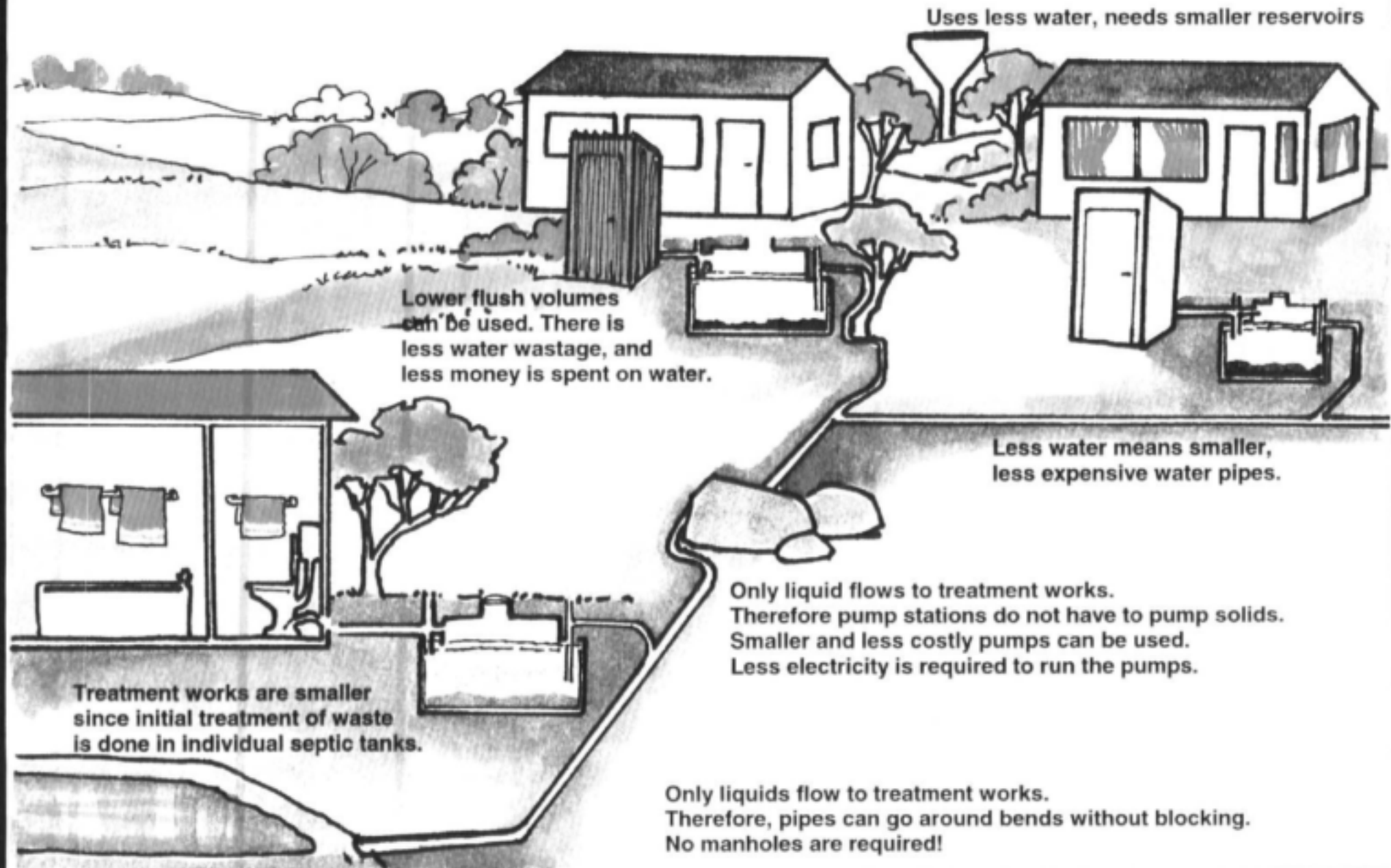


Design or construction problem

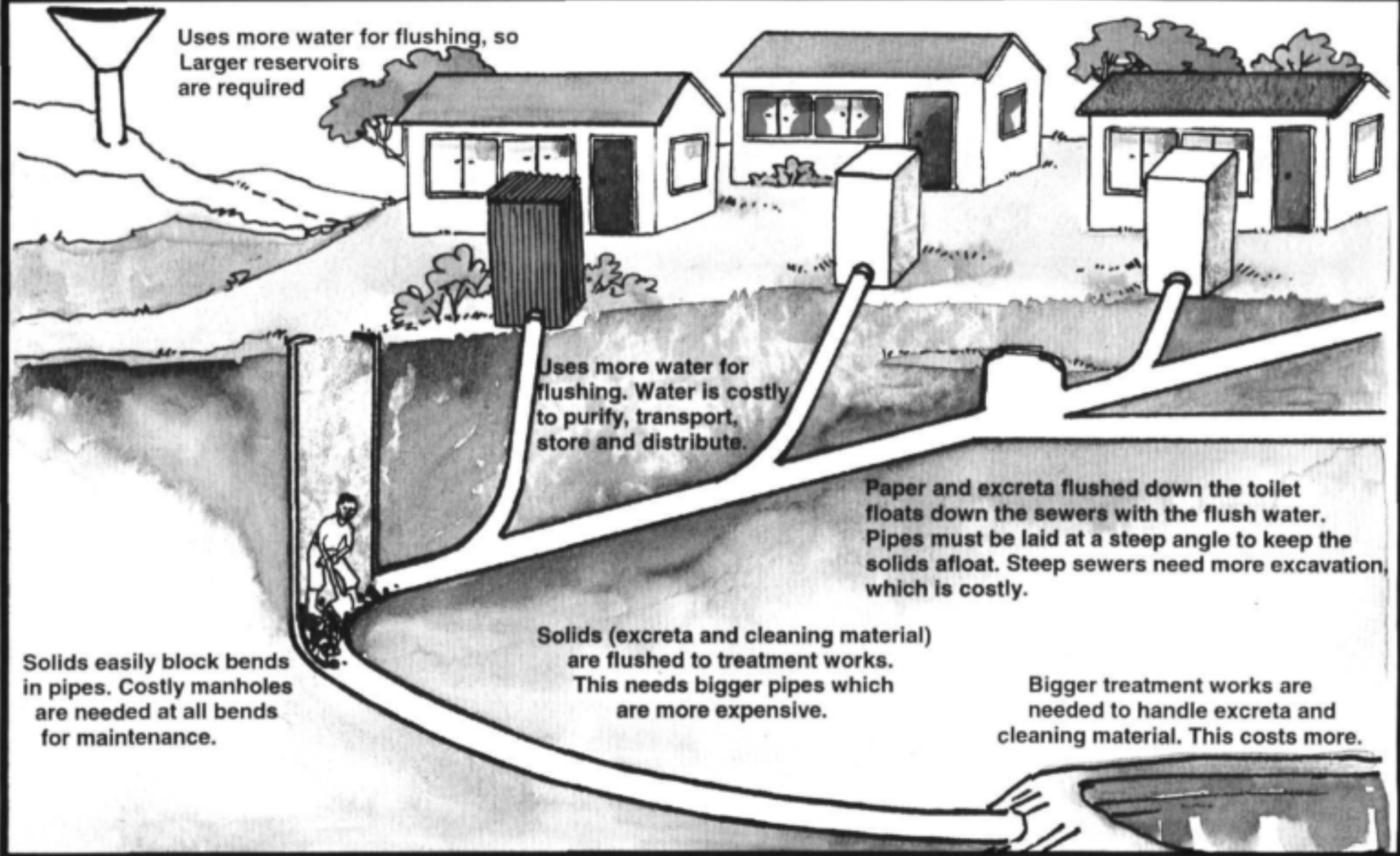


sewer system?

A solids-free sewer system



A raw sewage conveyance system

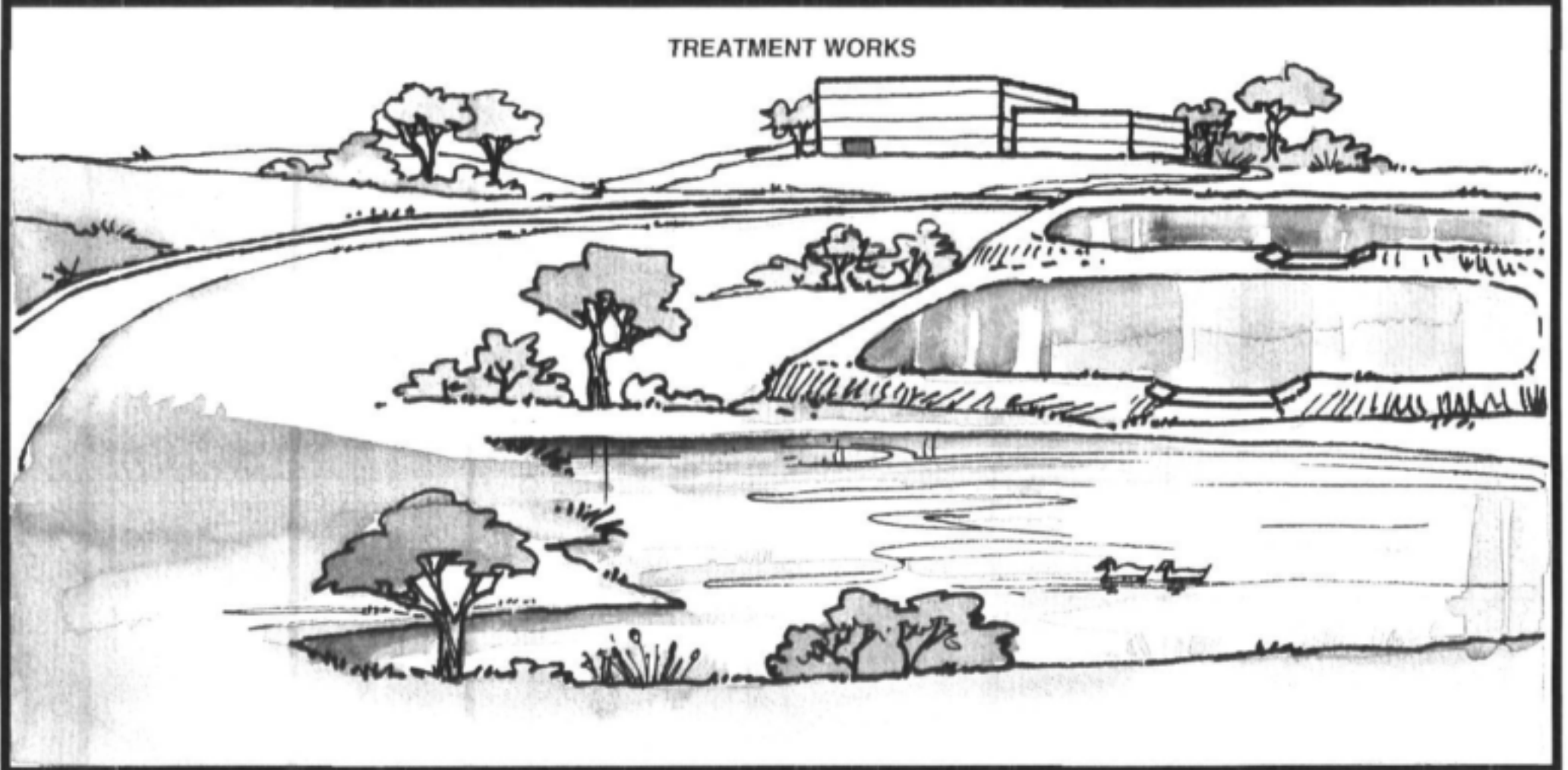


emptying of the tank

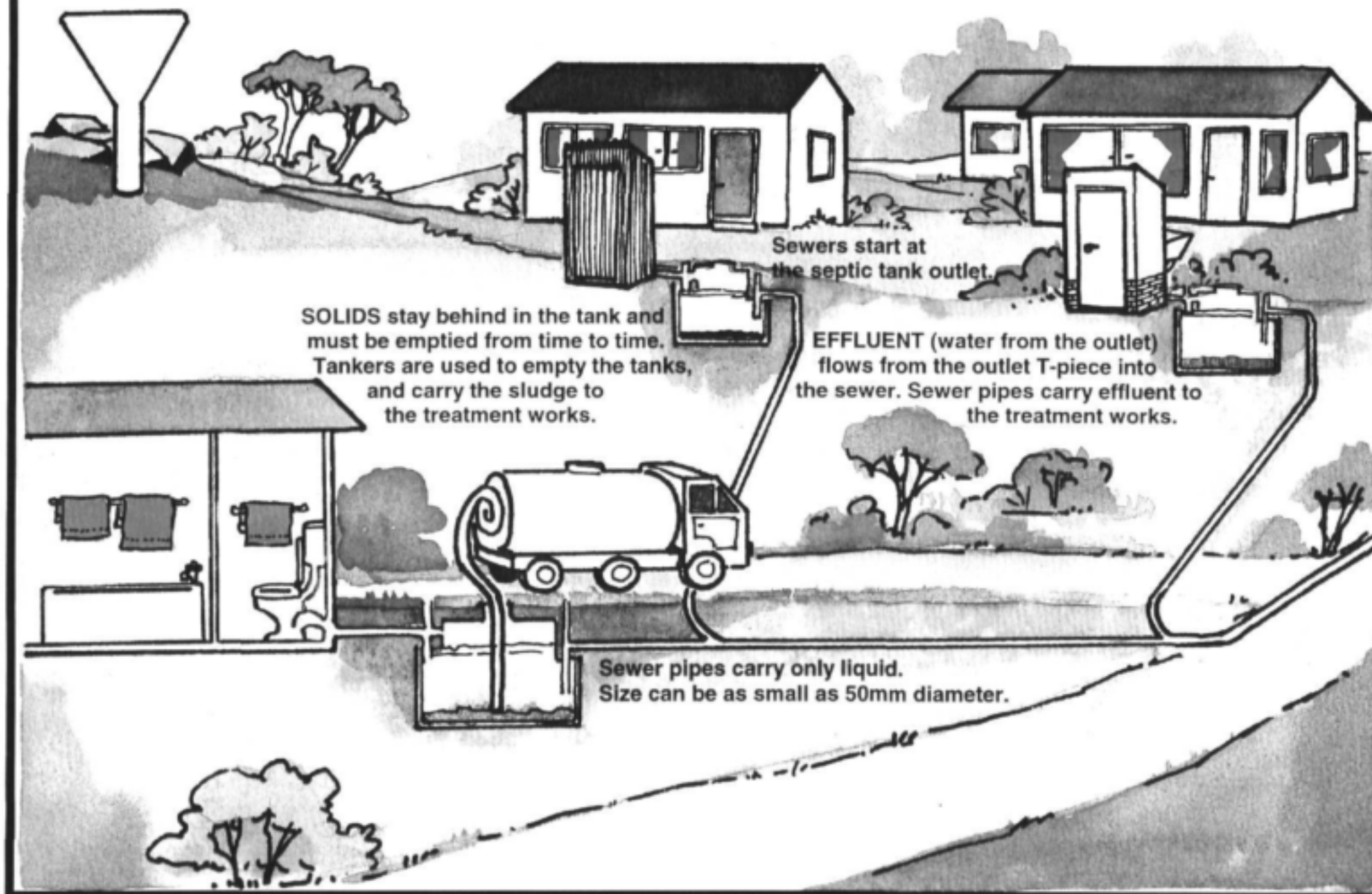
The tank must be emptied when there is too much **SLUDGE** in it.

The sludge in the tank builds up over time. Sludge build up happens more quickly when

- too little water is used : the more water used, the slower the sludge build-up
- newspaper, sticks, stones or maize cobs are used instead of toilet paper
- many people use one toilet



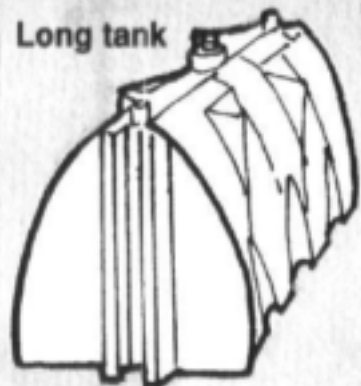
How the sewers work and



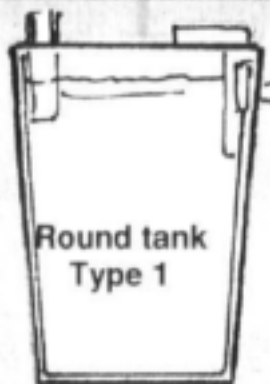
system works

Typical septic tanks

Long tank



Round tank
Type 1



Round tank
Type 2



Brick one-chamber tank



Brick two-chamber tank

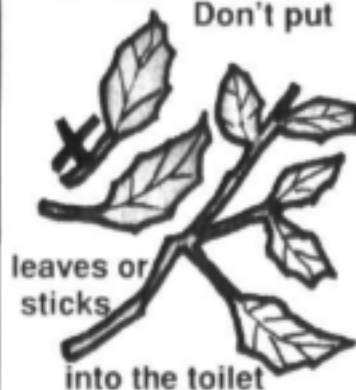


Tips for trouble free operation of the septic tank

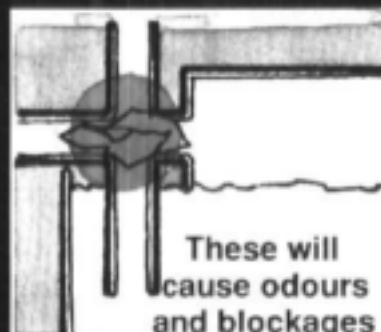
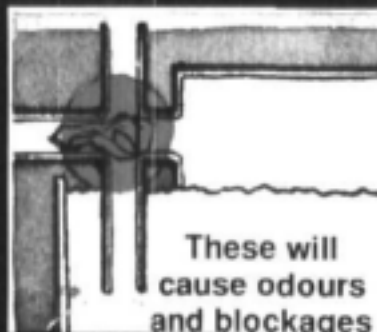
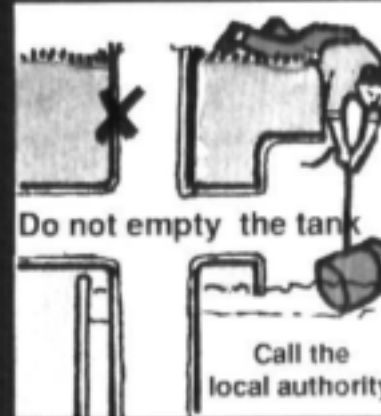
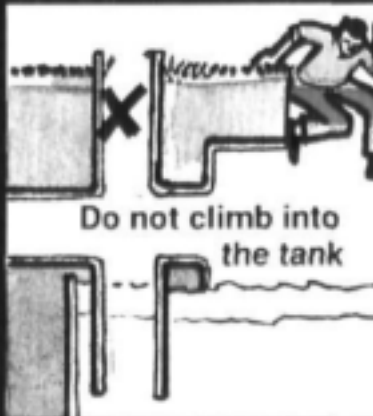
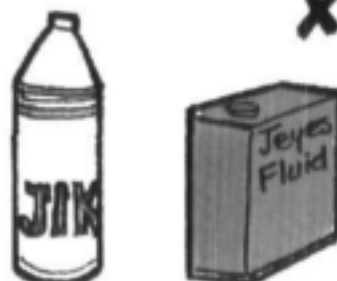
Don't put
into the bowl:
sanitary
towels



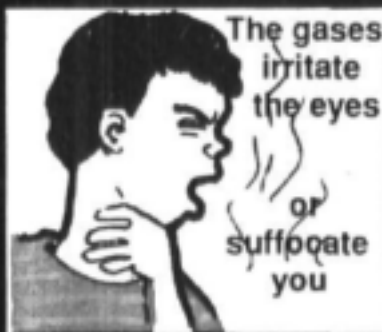
Don't put



Use Jik or Jeyes Fluid in
small quantities only



Too much will kill the
micro-organisms which
eat the excreta and
paper

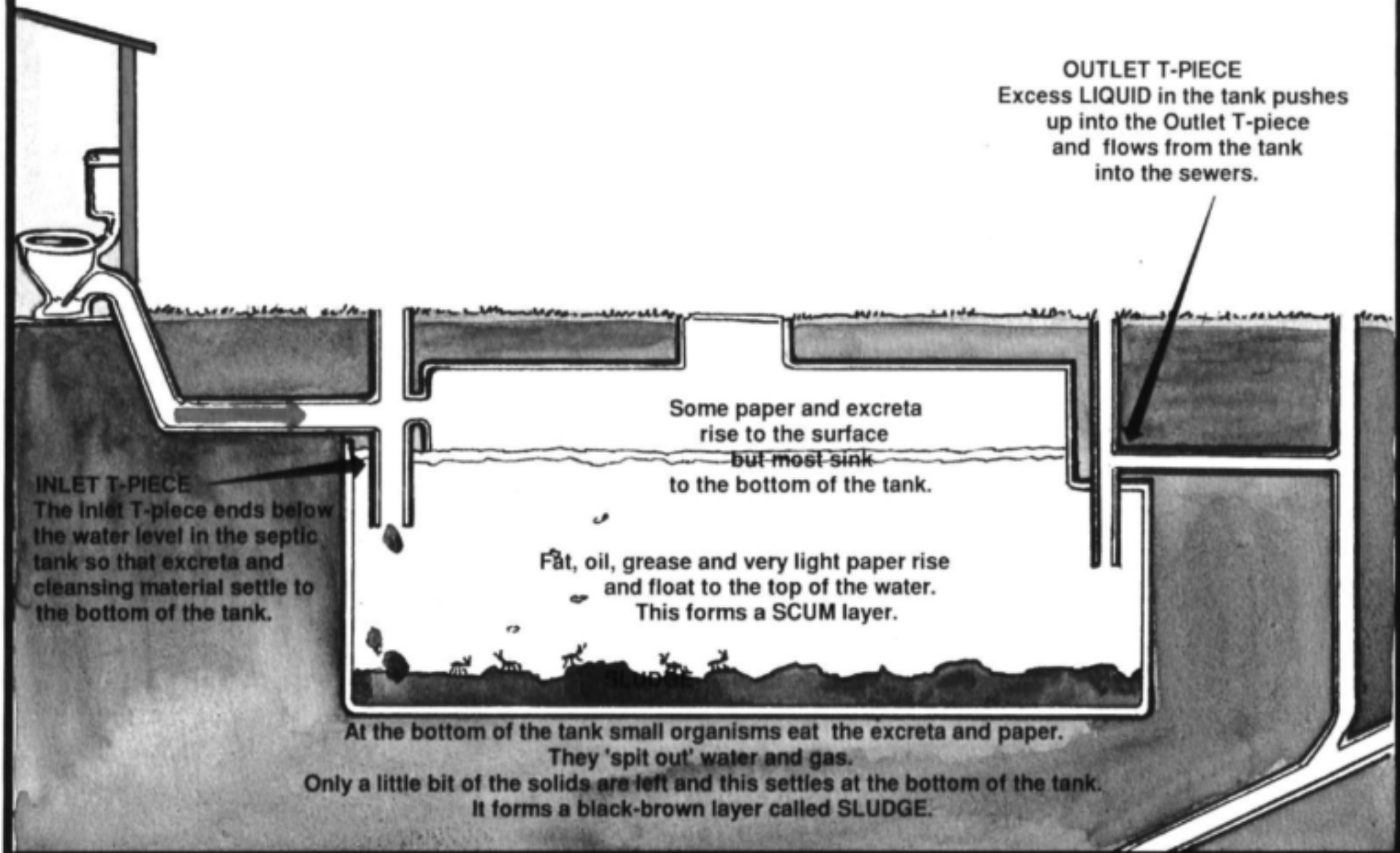


The Local Authority
or a contractor



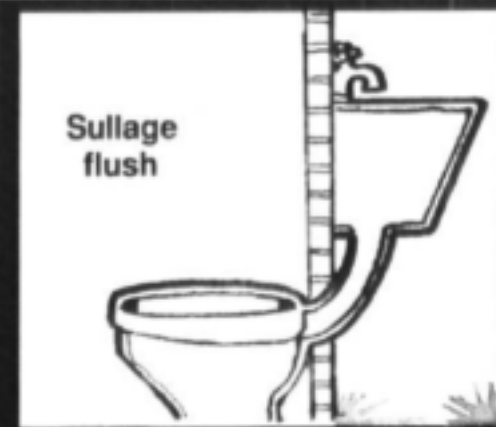
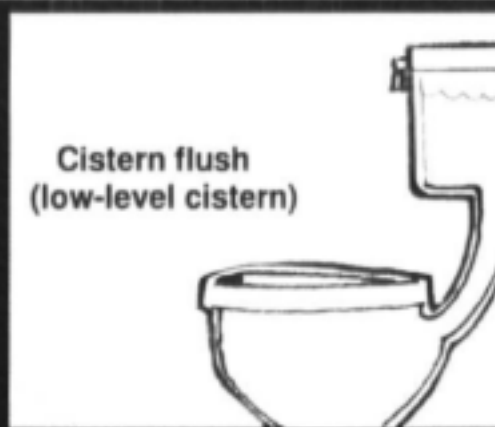
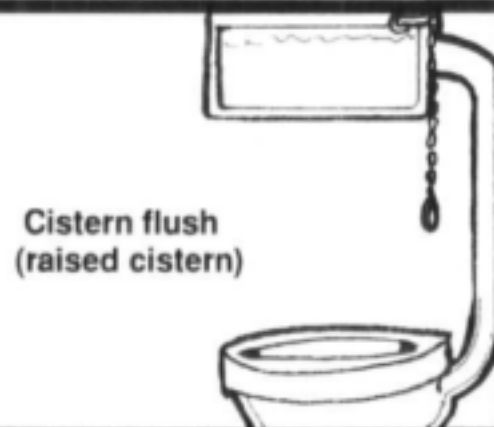
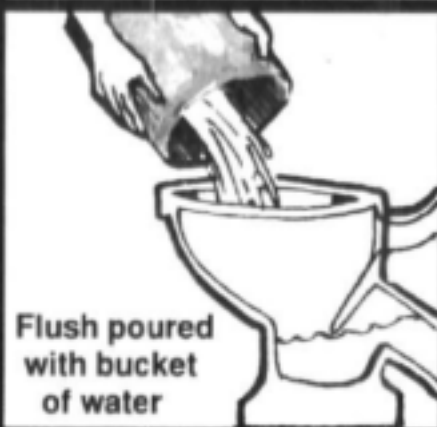
will empty the tank

The septic tank

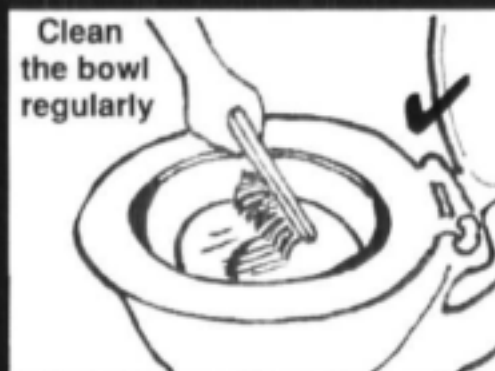


toilet work?

Available flushing techniques

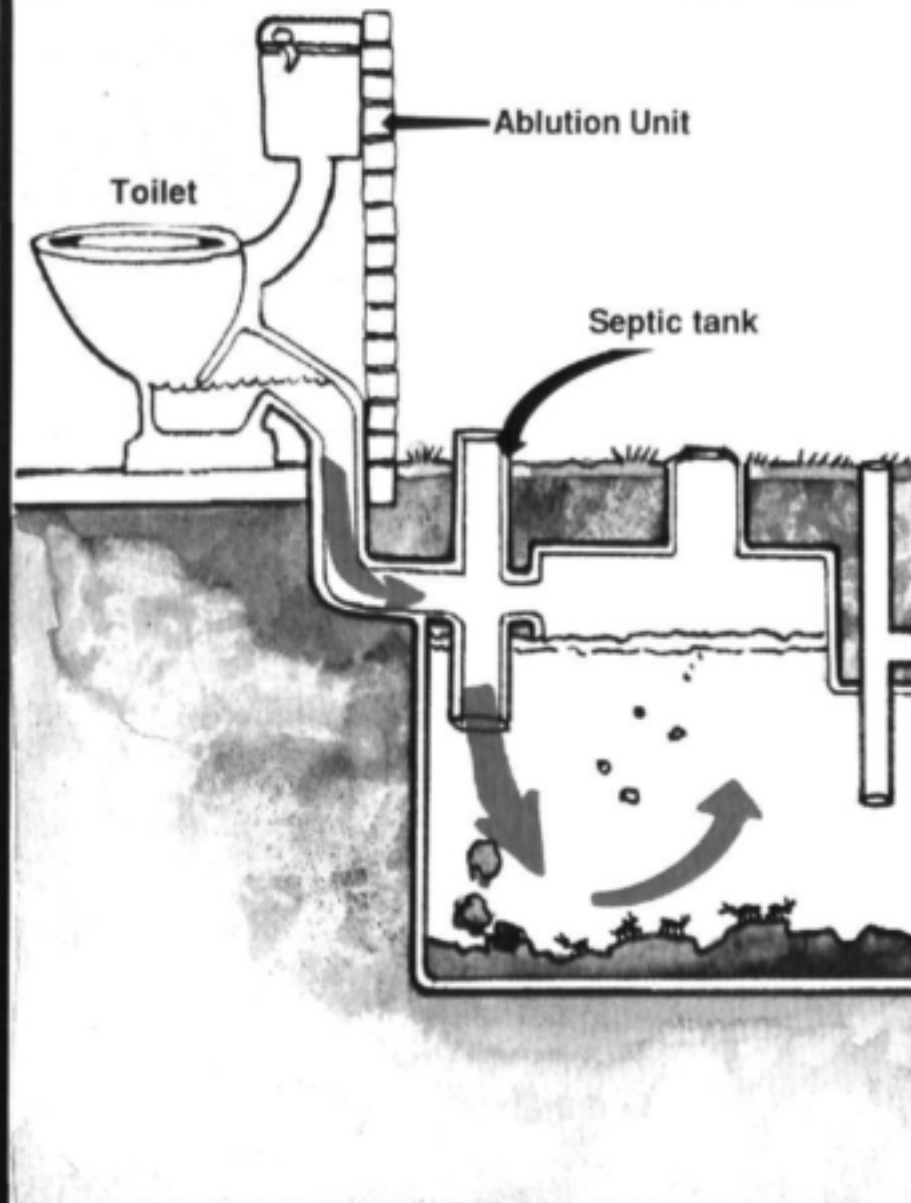


Tips

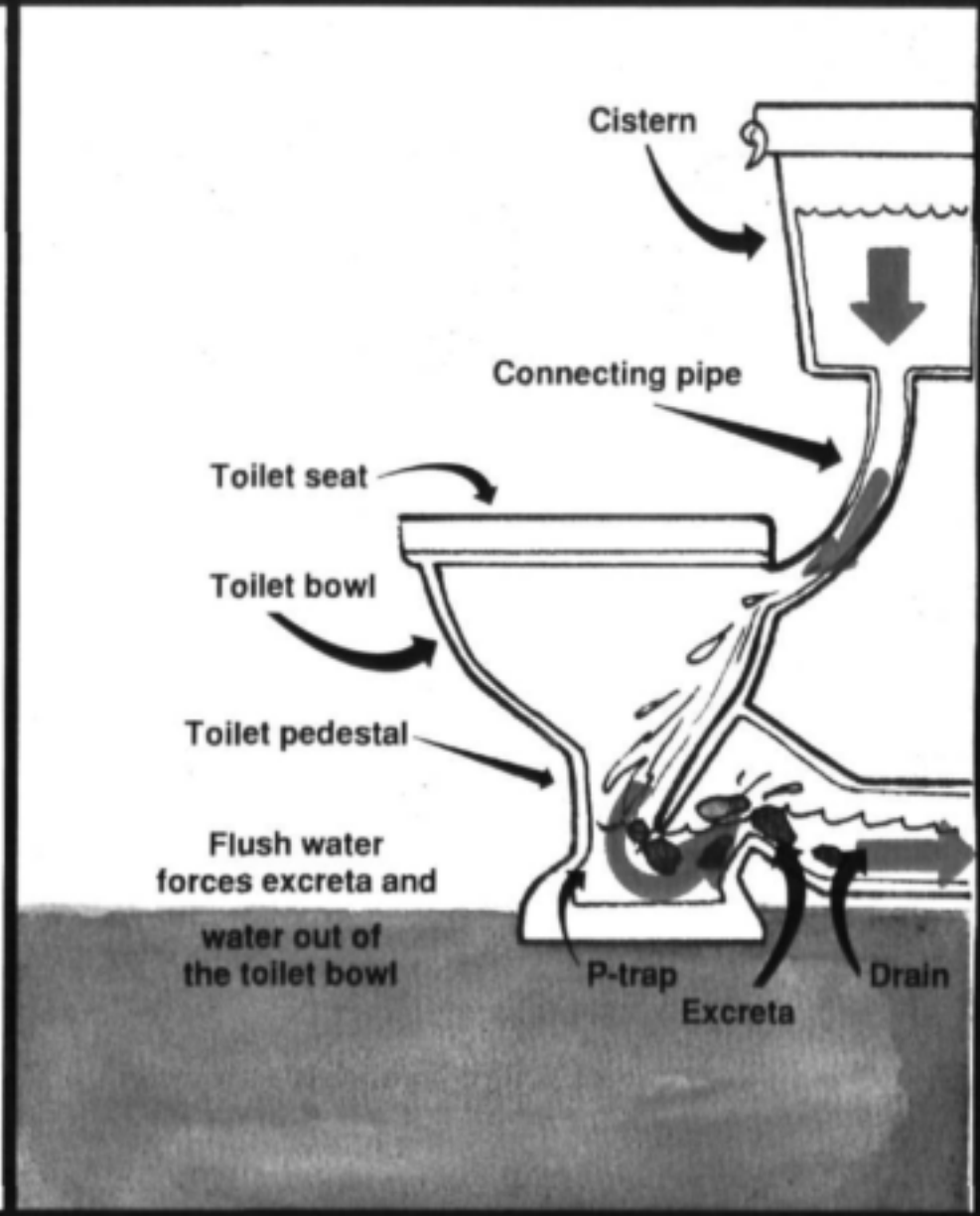


How does a flush

A typical flush toilet emptying into a septic tank



How flushing works to push the excreta out of the toilet



Solids-free sewer systems in South Africa: A community leader's guide

