



1.5m

THE ESTIMATED COST IN SHILLINGS OF INSTALLING THE WATER PURIFIER

Put waste water to use with water filter system

Keeping green, especially in the compounds, is hard when the weather becomes harsh. However, with a water purifier, waste water can be put to use.

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Many people think used water, say from the bathroom or kitchen, is useless and would find all possible means to get rid of it.

Ethel Namono, a landscaping and gardening expert with Iconic Hedges, has found a solution to this 'useless water' through a water filter system that purifies the water from sludge or sewage, treating it and later using it for irrigation.

About the purifier

According to Namono, the water filter system is similar to what city au-

Benefits.

With this filter system, we can save and conserve our environment naturally through irrigation, get already treated fertilisers. These fertilisers especially liquid fertilisers can be put into the water before being pumped for irrigation.

The water can also be used for construction of fountains in compounds especially that these take a lot of water and this may not be managed financially. This process is very helpful for maintenance of a green beautiful home and has helped cut down on water costs.

thorities use as sewage management. Water from the toilet, rainwater, runaway water, swamp water is harvested in tanks and through different channels it is separated from the particles such as sludge and treated.

Treated water is sometimes disinfected chemically or physically (for example, by lagoons and microfiltration) prior to discharge. It is then pumped and can be used for the irrigation of a gardens, football pitches or in waterfalls and fountains. If it is sufficiently clean, it can also be used for groundwater recharge or agricultural purposes after mixing it with liquid fertilisers.

Namono adds that the lowest charge for the installation of this system is Shs1.5m for the material and Shs750,000shillings for labour.

How it works

According to Namono, treating

Ethel Namono demonstrates how the water filter system works. PHOTO BY GODFREY LUGAAJU

wastewater has the aim to produce liquid waste that will do as little harm as possible when discharged to the surrounding environment, thereby preventing pollution compared to releasing untreated wastewater into the environment.

The filter system works in three phases, that is, primary, secondary and tertiary treatment.

Primary treatment: This consists of temporarily holding the sewage in a quiescent basin or sewage tank as locally known where heavy solids can settle to the bottom while oil, grease and lighter solids float to the surface.

The settled and floating materials are removed and the remaining liquid may be discharged or subjected to secondary treatment. Some sewage treatment plants that are connected to a combined sewer system have a bypass arrangement after the primary treatment unit.

This means that during very heavy rainfall, the secondary and tertiary treatment systems can be bypassed to protect them from hydraulic over-

loading and the mixture of sewage and rain water only receives primary treatment.

Secondary treatment:

It involves the removal of dissolved and suspended biological matter. This is typically performed by indigenous, water-borne micro-organisms in a managed habitat. Secondary treatment may require a separation process to remove the micro-organisms from the treated water prior to discharge or tertiary treatment.

Tertiary treatment:

This is sometimes defined as anything more than primary and secondary treatment in order to allow ejection into a highly sensitive or fragile ecosystem.

Odours emitted by sewage treatment are typically an indication of an anaerobic or "septic" condition. Early stages of processing will tend to produce foul-smelling gases, with hydrogen sulfide being most common in generating complaints.

Odour control

Large processing plants in urban areas will often treat the odours with carbon reactors, a contact media with bio-slimes, small doses of chlorine, or circulating fluids to biologically capture and metabolise the noxious gases. Other methods of odour control exist, including addition of iron salts to manage hydrogen sulfide levels. High-density solids pumps are suitable for reducing odors by conveying sludge through hermetic closed pipework.

One might worry about the accumulated sludge in a wastewater treatment process but must be treated and disposed of in a safe and effective manner. The purpose of digestion is to reduce the amount of organic matter and the number of disease-causing microorganisms present in the solids. The most common treatment options include anaerobic digestion.

Sludge treatment depends on the amount of solids generated and other site-specific conditions. Composting is most often applied to small-scale plants with aerobic digestion for mid-sized operations, and anaerobic digestion for the larger-scale operations.

The sludge is sometimes passed through a so-called pre-thickener which de-waters the sludge. Dewatered sludge may be incinerated or transported offsite for disposal in a landfill or use as an agricultural soil amendment.