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#### WATER TREATMENT SOLUTIONS FOR INDEPENDENT VILLAS



### **INTRODUCTION:**

Many reputed property developers have developed and promoted the establishment of independent villa plots in different parts of the city. These plots range from 0.5 grounds to 2 grounds depending on the type of customers the promoter is catering to.

## INFRASTRUCTURE AND OFF SITES

As stipulated by MMDA or the CMDA the builder provides the necessary open space for common area to cater to internal roads, parks and open spaces as required. Builders also demarcate the plots clearly and provide compound walls, approach roads, power, and a centralised treated water facility to supply potable water.

### TREATMENT OF DOMESTIC EFFLUENT.

The treatment of the domestic effluents from the building is however left to the plot owner and most villa owners' resort to installing a bio septic tank to treat the effluent.

A bio septic tank works well as along as the incoming effluent contains a unform concentration of pollutants (constant BOD and COD load) and the flow rate of incoming effluent is steady. Like all biological systems a bio septic tank is not designed to take any shock load. Also, excessive use of toilet disinfectants and strong detergent cleaners kills the micronutrients and bacteria in the bio septic tank resulting in improper sewage treatment. The bio septic tank would then have to be serviced and results in considerable disruption to the household.

Additionally, residents spend a considerable amount in evacuating and transporting the sewage to other centralised STPs in the city.

# SUSTAINABLE SOLUTION.

A more sustainable solution would be to separate the grey water and the black water from the domestic effluent.

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Grey water constitutes about 65 to 70 % of the total water used in the household. Treated grey water can be used for toilet flushing, gardening, and ground recharging. This will help improve sustainability of the water in the community.

Also, the bio septic tank can be used for treating only the sewage which will ensure that its performance is predictable, and the total volume of sewage treated is reduced by 65 %.

A combination of rainwater harvesting, and grey water separation and treatment ensures that the residential colony is self-sufficient and self-sustained in terms of its water requirements.

Vasudha Aqua offers fully automatic modular grey water treatment plants for independent villas .

Contact

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