

On-site Sewage Disposal a Primer, for the Great People of the Buck Lake Association

All you wanted to know but were afraid
to ask about on-site sewage disposal

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Building Materials Evaluation Committee[BMEC]

- This is the committee which reviews new technologies, and establish the rules under which these new technologies can be used
- A BMEC evaluation report is the basis by which new technologies are allowed to be used when the building code does not currently cover the particular technology
- All BMEC reports, can be viewed and printed from the Ministry of Municipal Affairs Housing web site, <http://www.mah.gov.on.ca> under the appeals and approvals tab.

O. REG. 330/12 AS AMENDED BY O. REG. 130/13
IN EFFECT JANUARY 1, 2014

CODE SERIES

ONTARIO BUILDING CODE 2012

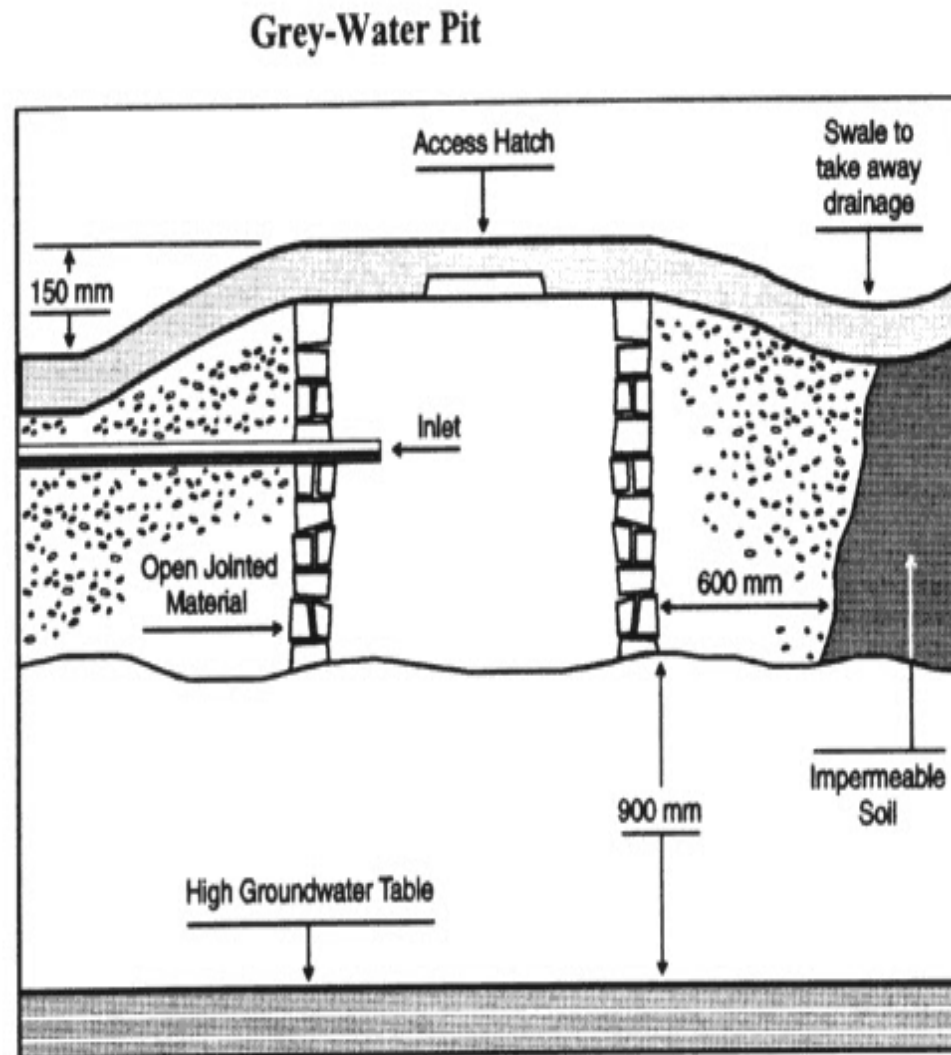
CONFORMS BUILDING CODE ACT, 1992
O. REG. 330/12 IN EFFECT JANUARY 1, 2014

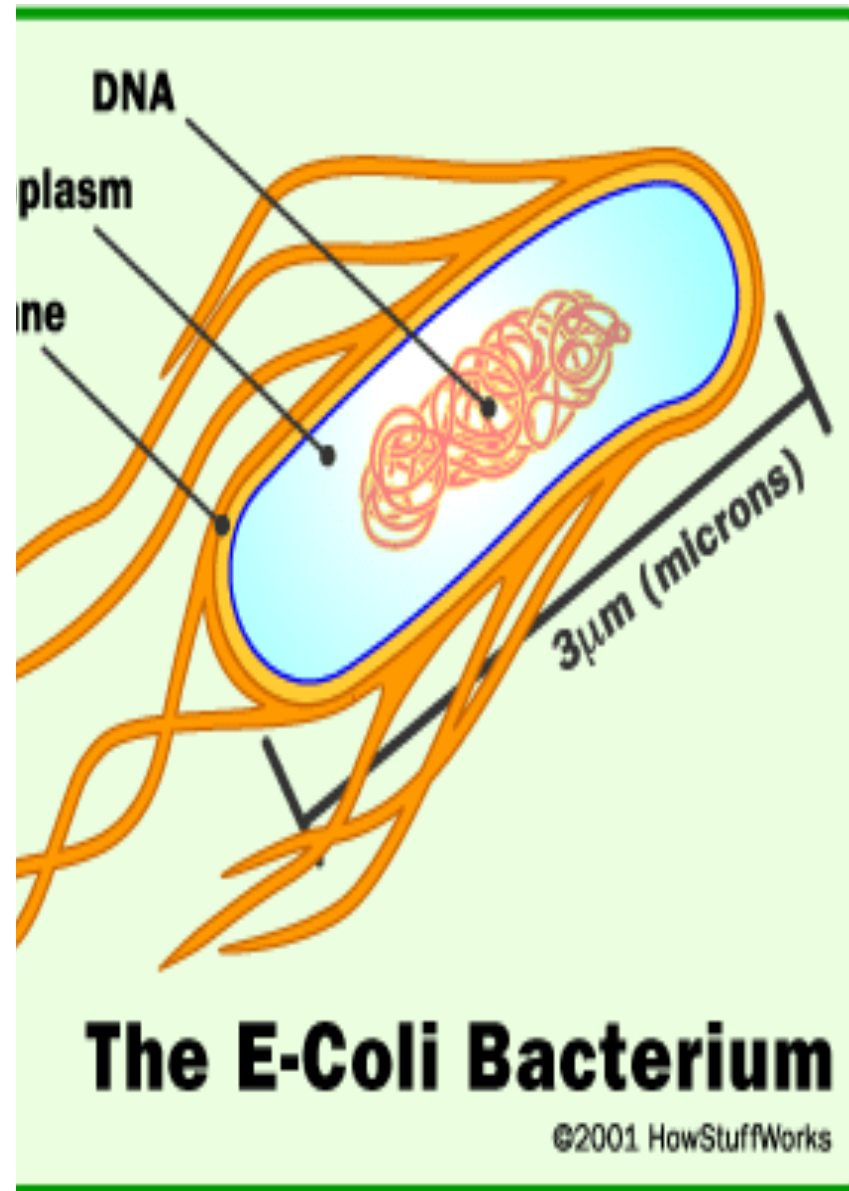
Class 1 System [Outhouses and Composting toilets]





Class 2 systems [Leaching Pit]

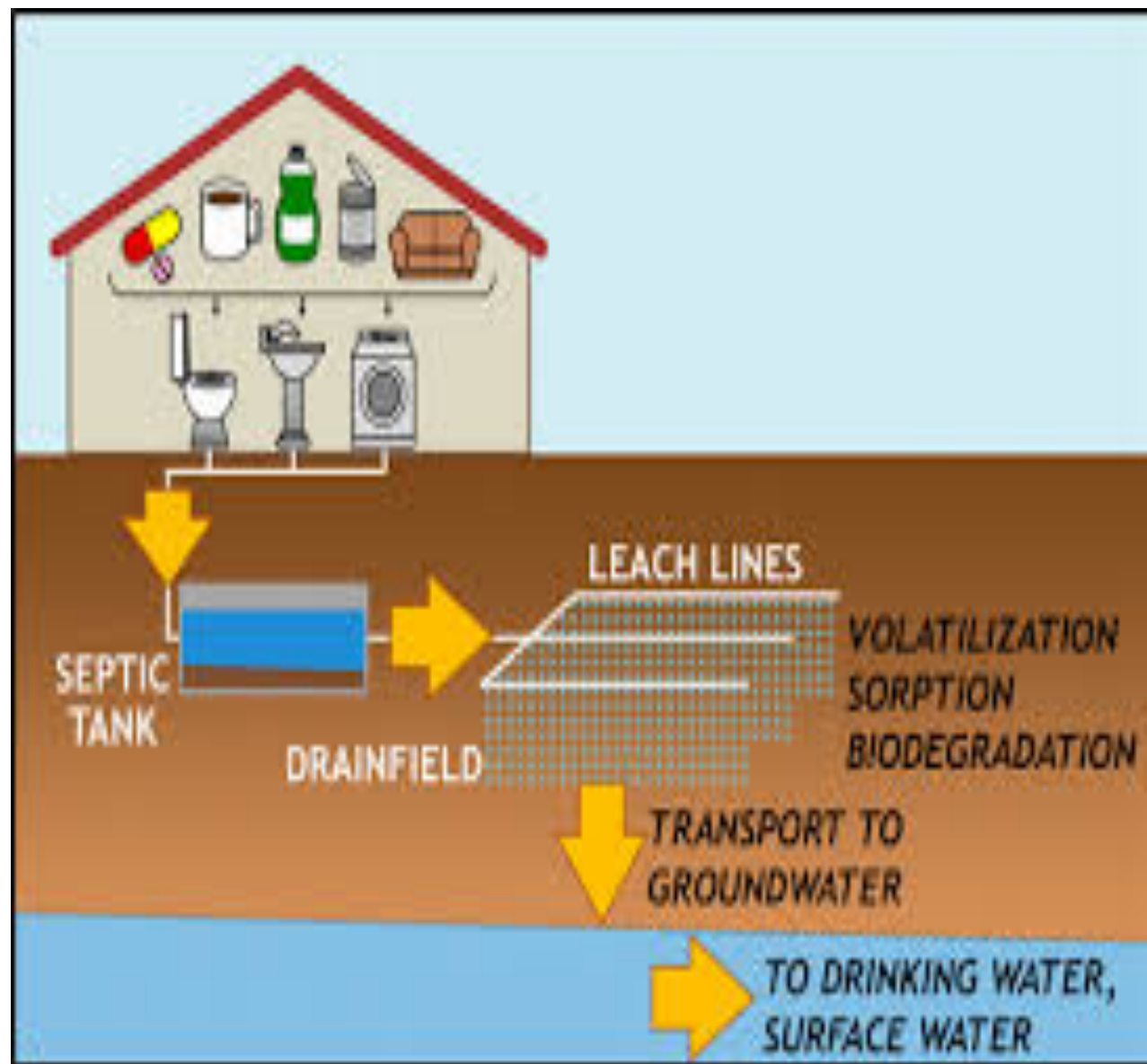




Class 4 Septic tank Systems





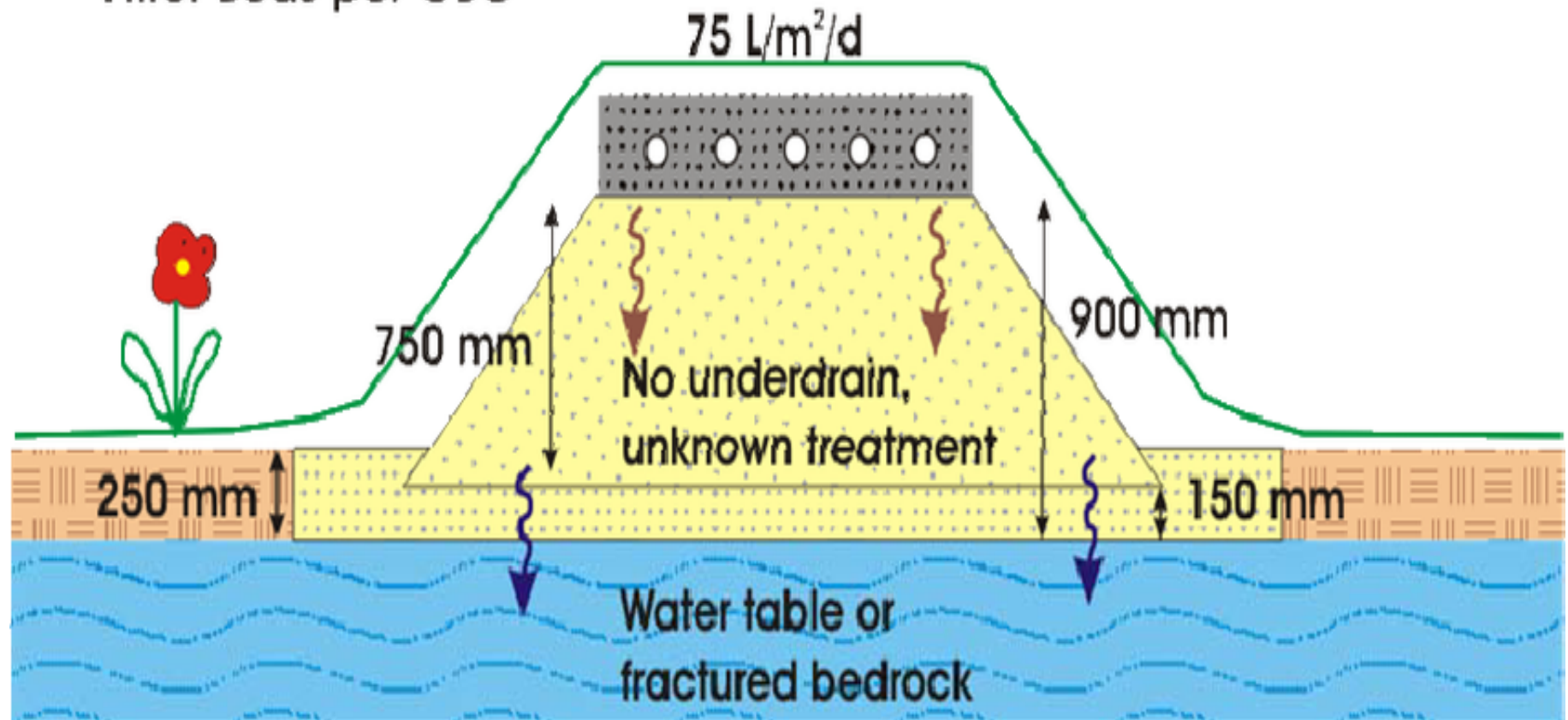


Class 4 Systems [septic tanks and treatment units]





Filter Beds per OBC















Level 4 Treatment Units

- And then there were four....
- New standards introduced into the building code January last year as significantly thinned the number of available options, with respect to level 4 treatment [CAN/BNQ 3680-600], the four surviving products [with some alterations] include:
- These products can be used with a much smaller final disposal bed or a shallow buried trench
- Ecoflo
- Waterloo Biofilter [cube forms]
- Bio-microbics
- Norweco

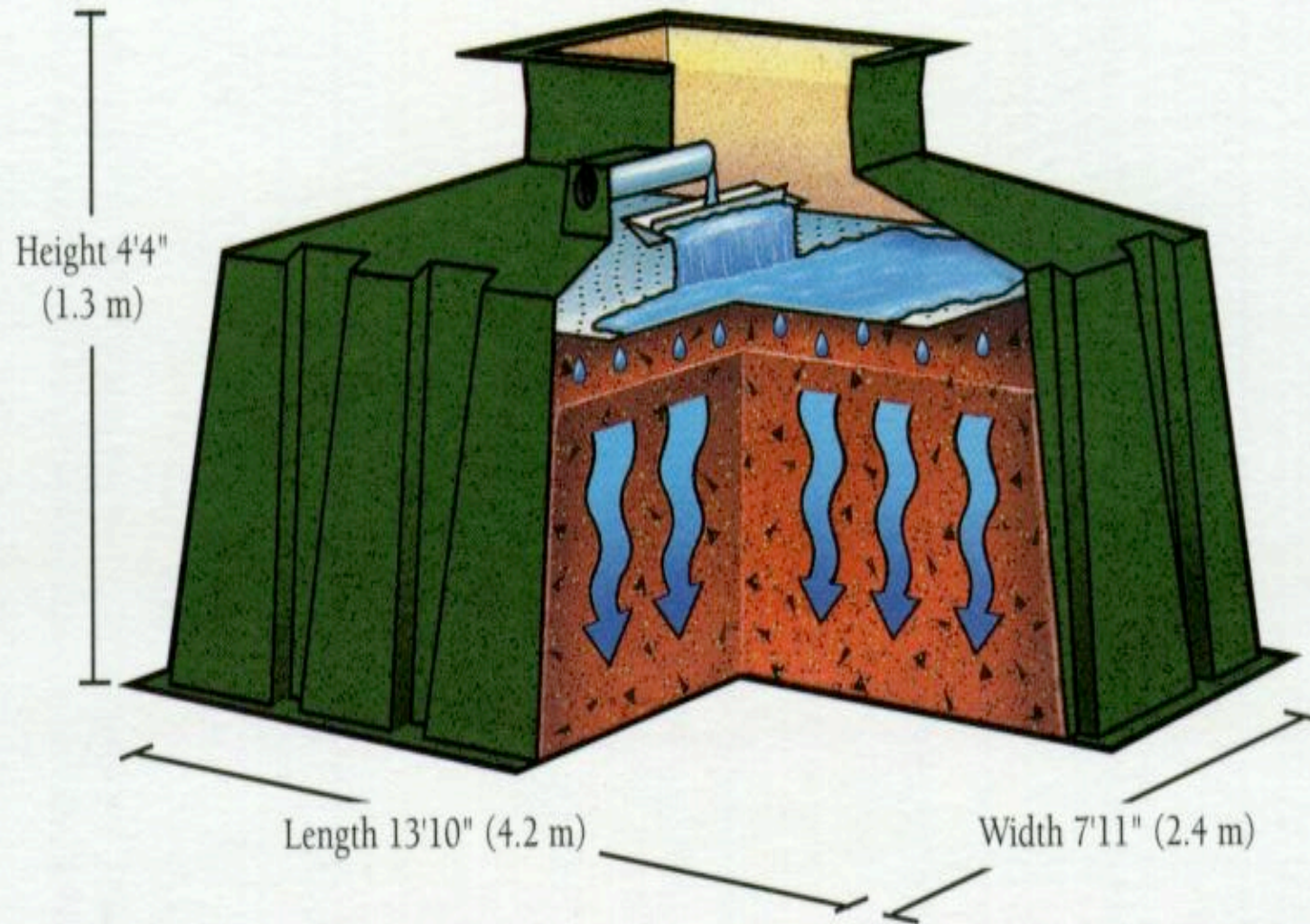
Level 4 Treatment Units- continued

- Can produce a higher quality effluent when installed, operated and maintained properly
- In light of the above final disposal beds for these units are smaller and permitted to be installed closer ground water
- Can be equipped [at a significant cost] with equipment which can reduce contaminants not currently governed by the building code [Phosphorus, and Nitrogen products for example]
- Increases development pressure with respect to lot size , setbacks because of the reputation of producing better quality effluent

Ecoflo Peat/Coconut Bed



Weight 275 lbs (125 kg)





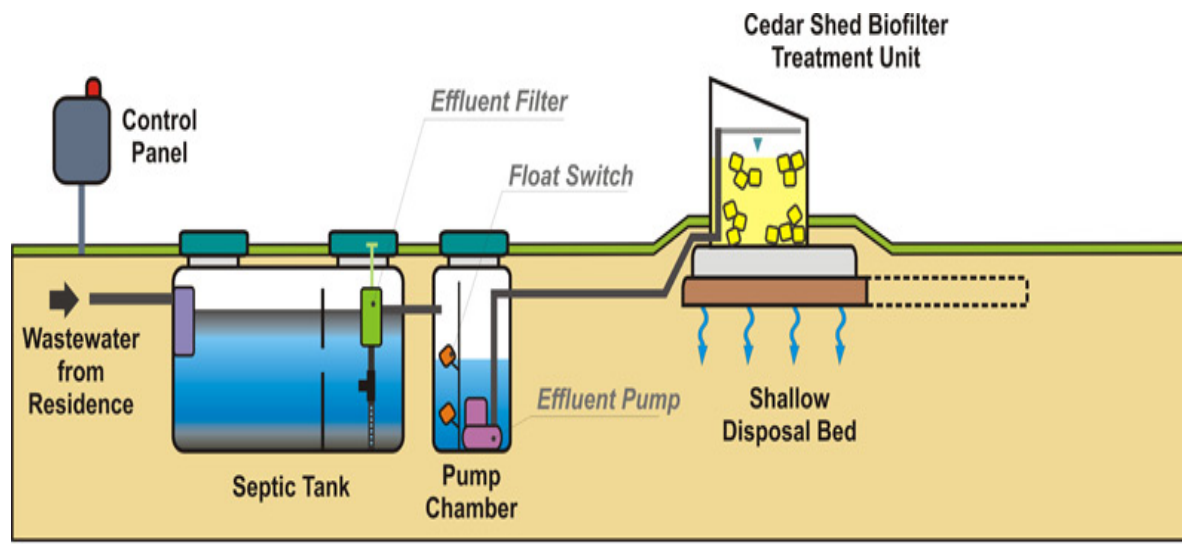
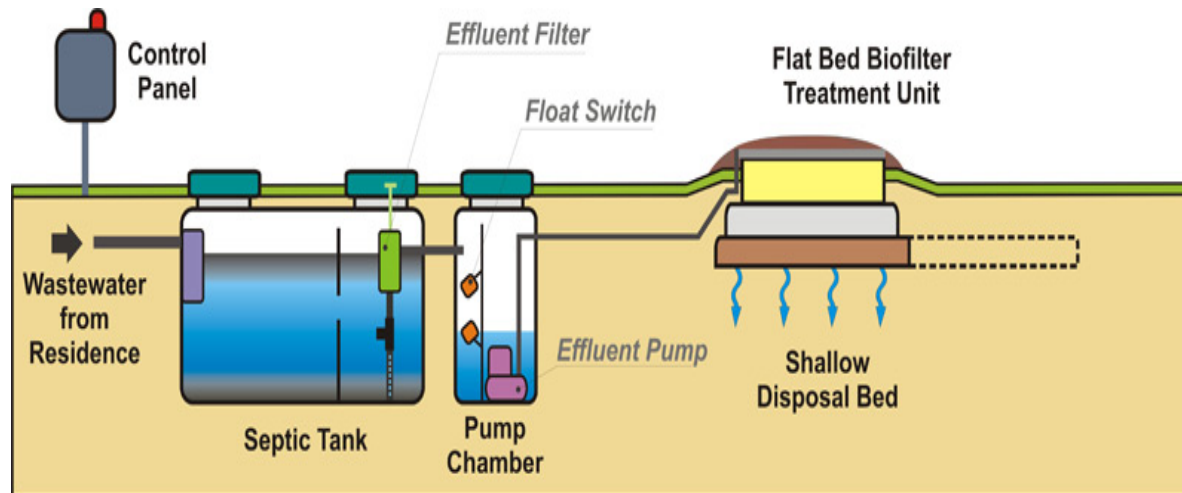
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Waterloo Biofilter [Foam treatment]



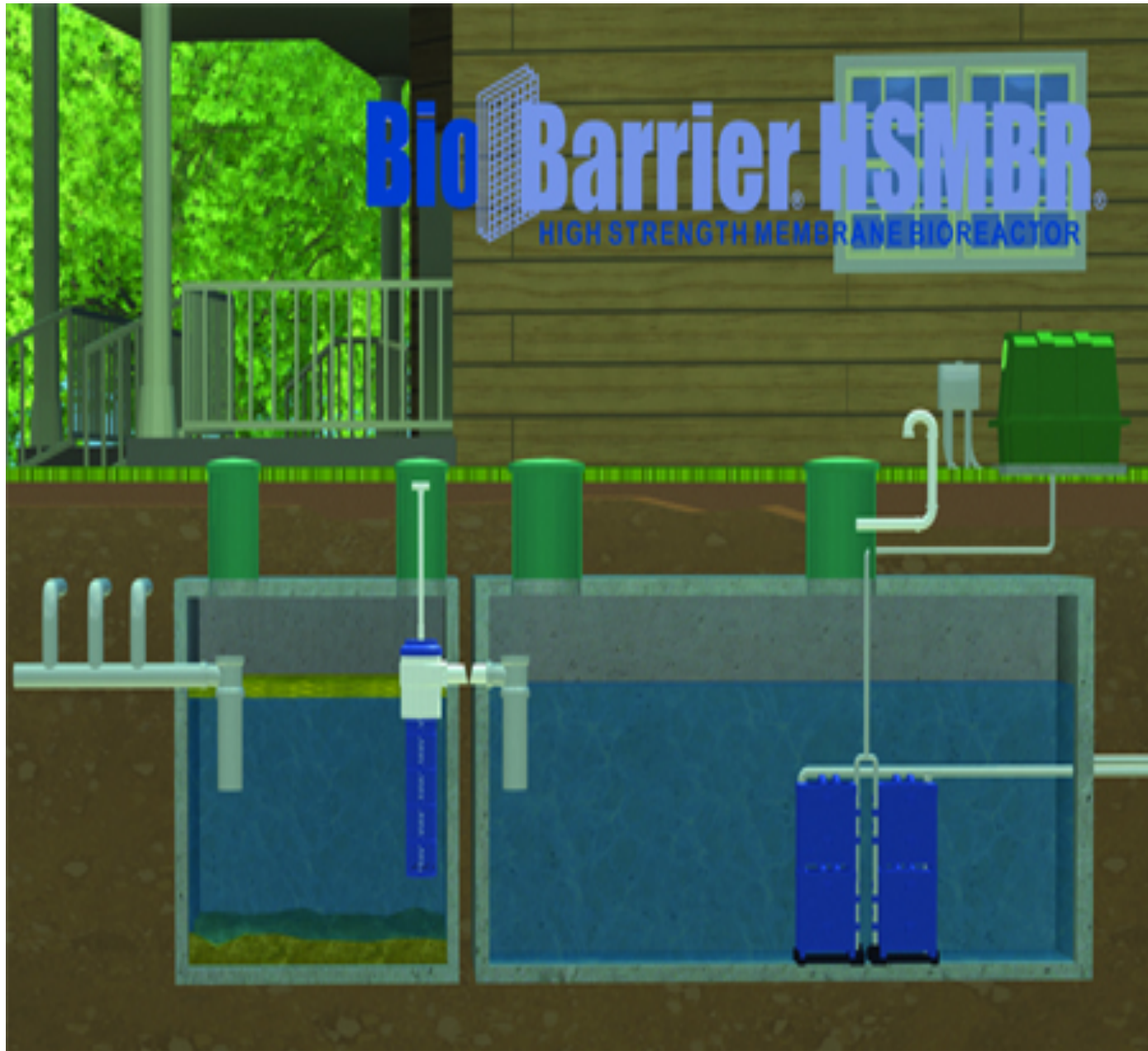






BioBarrier HSMBR[®]

HIGH STRENGTH MEMBRANE BIOREACTOR







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Other Systems of Interest

- There are three “other” systems of interest being installed using what is known as a BMEC [Building Materials Evaluation Committee] report
- These systems, provide treatment and disposal in the soil, and have shown to produce a level 4 quality of effluent
- Offer reduced footprints, height, require very specific types of soil
- Enviro-septic [will have CAN/BNQ approval any day according to Canadian supplier and representative]
- Eljin GSF
- Infiltrator ATL

Eljin GSF





- **Porous Top of the Eljen GSF**

allows evapotranspiration and oxygen exchange for better effluent treatment.

- **Anti-Siltation Fabric**

keeps fines out of the Eljen GSF

- **Untreated Effluent**

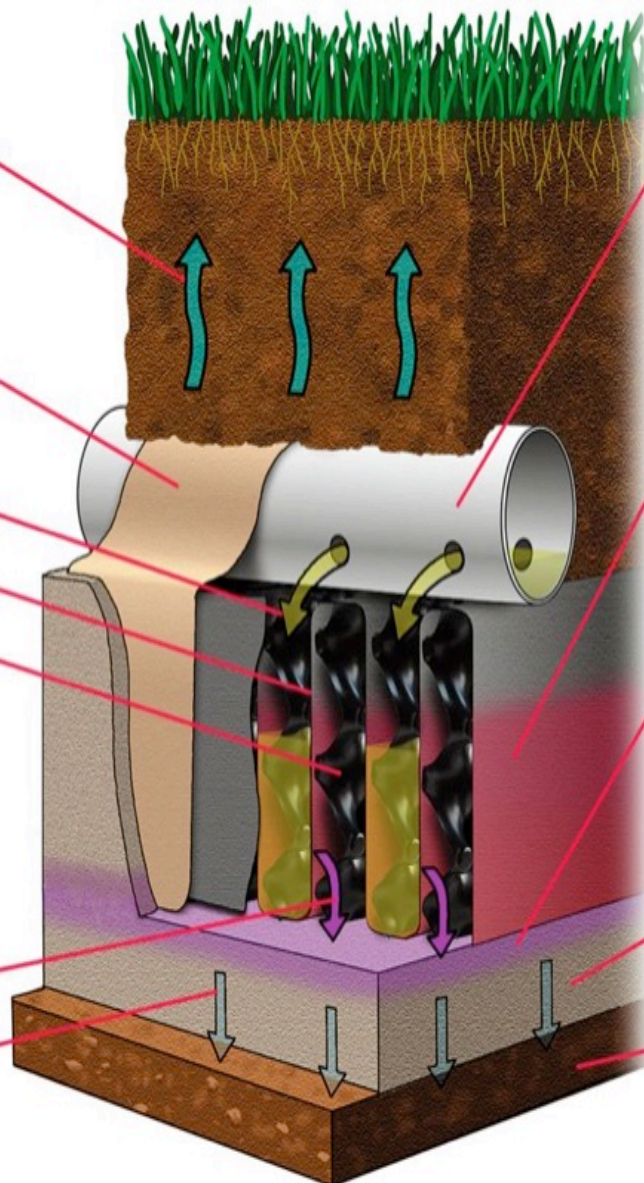
- **Bio-Matt™ Fabric**

- **Cusped Plastic Core**

provides separation between layers of Bio-Matt™ fabric. Maintains structural integrity of modules & aids oxygen transfer. Increases treatment surface area & effluent storage capacity.

- **Filtered Effluent**

- **Treated Effluent**



Perforated Pipe

distributes effluent to the Eljen GSF. Pipe is secured to the GSF Modules with preformed metal clamps.

Primary Treatment Zone

forms on Bio-Matt™ fabric. Significant fabric provided for every ft² of soil interface.

Secondary Treatment Zone

forms at sand layer. Long term acceptance rate of this biomat layer is significantly increased as compared to conventional systems.

Specified Sand Layer

provides additional filtration

Native Soil or Fill

provides final filtration

Enviroseptic

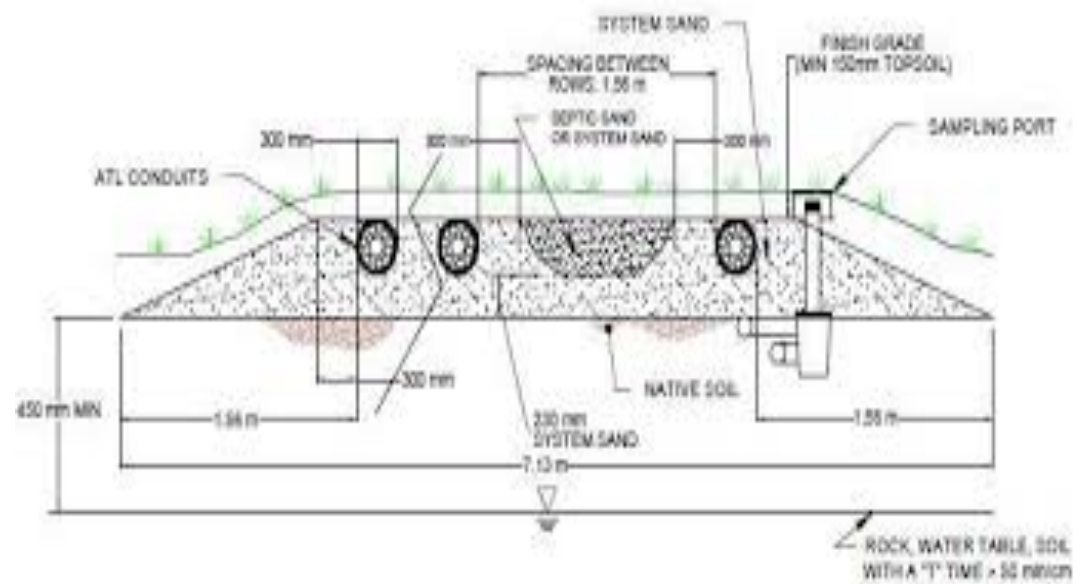






Infiltrator ATL





Gord's Tire Bed System [Patent Pending]



Other Stuff

[enhancers]



The Elephant in the Room.....

SURFACE FEATURES CLINTS AND GRIKES

Carbonic acid enters areas of weakness in limestone (joints, cracks, pores, bedding planes) wearing these areas down to form narrow grooves in between the limestone pavement. These narrow grooves are called grikes. The flat limestone surfaces are called clints. Can you identify the clints and grikes from the picture?







**No, I did not dig up the septic
tank, and frankly, I am
offended at the accusation.**



Where to find more information [bedtime reading for insomniacs]

- Kingston, Frontenac, Lennox and Addington
Public Health

www.kflaph.ca

- Ontario On-site Wastewater Association

www.oowa.org