

THE SEPTIC TANK TEN COMMANDMENTS

1. THOU SHALT NOT pour greases, fats and oils down any drain!
2. THOU SHALT NOT attach a garbage disposal to your sink for ridding thyself of meat bones, coffee grounds or other foods that are difficult to biodegrade!
3. THOU SHALT NOT dispose of paints or household chemicals in the drain (yea, verily, THOU SHALT use disinfectants in small amounts)!
4. THOU SHALT NOT dispose of any automobile fluids down any drain, be it petrol, oil, transmission or brake fluid, grease or antifreeze!
5. THOU SHALT NOT kill the beneficial bacteria in your septic system by rinsing pesticides, herbicides or any other toxins down the drain!
6. THOU SHALT NOT dispose of any non-biodegradable item in thy toilet, be it cigarette butts, disposable nappies or feminine hygiene products!
7. THOU SHALT NOT let water run while washing dishes or thawing frozen foods and shall consider limiting flushes! (If it's brown, flush it down, if it's yellow, let it mellow)
8. THOU SHALT NOT run half loads in the dishwasher or washing machine and shall stagger wash loads (none on the Sabbath then six on Mondays THOU SHALT NOT DO)!
9. THOU SHALT NOT use chemicals to "start up" or "clean up" thy system, yea, they could harm the septic tank, drainfield or groundwater.
10. THOU SHALT NOT attach "clean water" sources such as Stormwater, swimming pool backwash or sump pumps to the Septic system!



BSA Lic 1049612

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BUILDING IN A NON-SEWERED AREA.

You will need a form of on-site wastewater treatment sometimes referred to as OSSF, AWTS, HSTP, WWTS or a "septic" system.

There are numerous brands of wastewater treatment systems. Two things they all have in common (apart from all waste septic systems) are the initial requirement for a site assessment for effluent disposal and the ongoing requirement of regular servicing.

Site Assessment for Effluent Disposal.

- ◆ Different to soil test (although sometimes may be undertaken by the same person/company doing your soil test).
- ◆ Basically looks at your block, your house plan and your soil type to decide on an appropriate type of effluent disposal eg surface irrigation (aboveground sprinklers), subsurface irrigation (pipe with holes in it laid beneath the soil), covered surface irrigation (pipe laid on the ground beneath a layer of mulch & plants), evaporation trenches/mounds etc.
- ◆ They look at your block to see if **standard setback distances** can be met (see next page). To see whether it is sloping, flat, whether the soil has good absorption, whether there are water courses, dams, easements, bores etc. Note that established neighbouring blocks may also impact on setback distances being met.
- ◆ They look at your house plan to see how many bedrooms & bathrooms to calculate potential hydraulic loading. (So even if there are only two people living in the house they will look at the maximum potential loading should the house be fully occupied.)
- ◆ It is a good idea to discuss future plans with your site assessor such as swimming pools, sheds, carports, driveway etc as all of these additions will impact on where your disposal field is located. Keep in mind that once it is installed and approved by council then everything after (like a spontaneous decision to later on include a pool etc) must comply with setback distances.
- ◆ **A completed site assessment and your council approval documents are required to enable us to provide a firm quote.** Site inspection may be required to assess access and the requirement of risers and/or retention/diversion mounds.
- ◆ **The price of a wastewater treatment system varies substantially based on disposal type, risers, retention &/or diversion mounds, location and access.** This is why we ask for your site assessment and your council approval to make sure we can give you an accurate price estimate. All quotes exclude rock/unseen obstruction and are subject to our standard conditions.

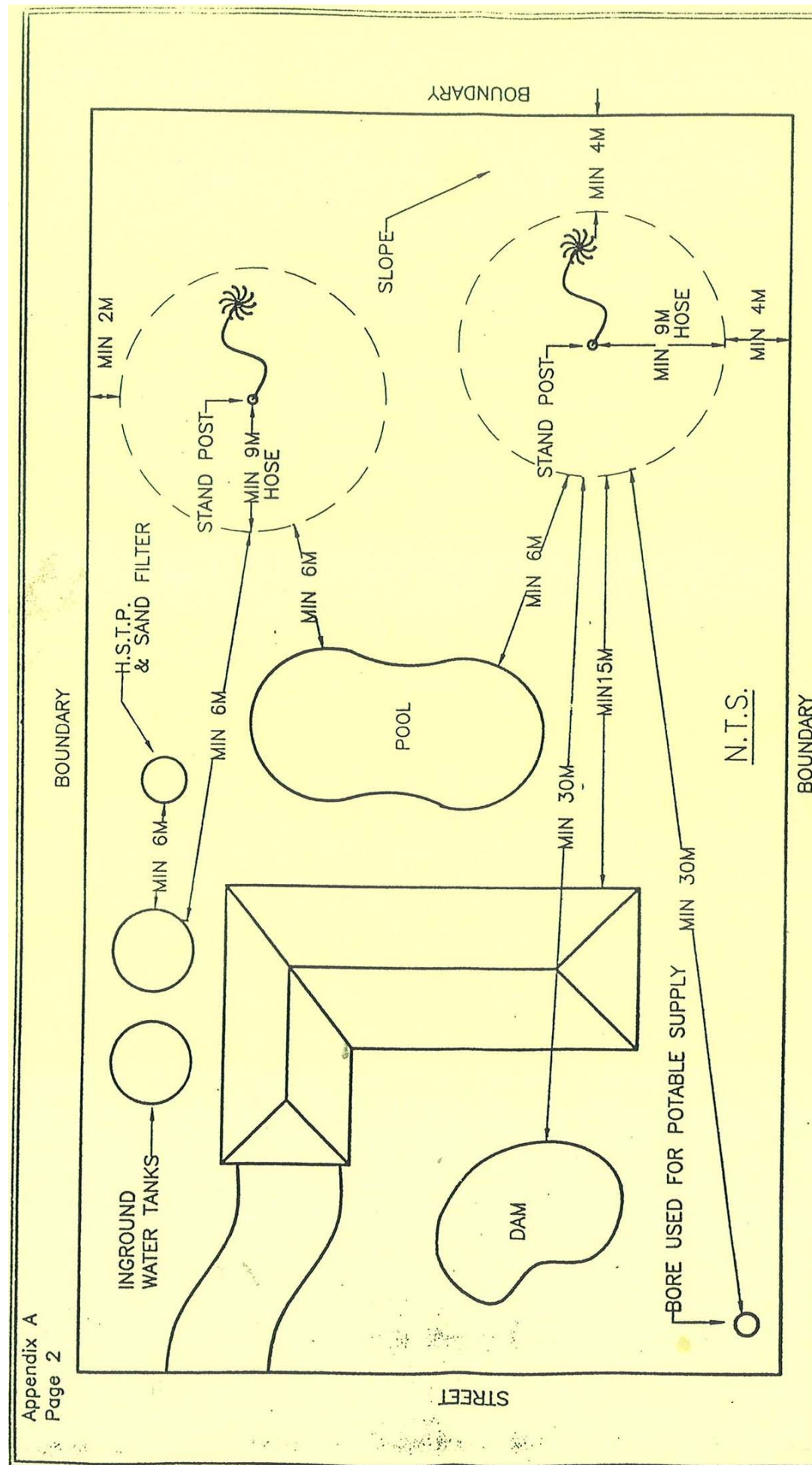
Servicing

- ◆ This is a State & Local Authority requirement and is enforced by council. Servicing intervals vary between different brands of treatment systems ranging from quarterly (4 times a year) to annual (once a year).
- ◆ Servicing must be carried out by a suitably licensed person. Service reports are sent to both the householder and to council.

Things to Consider...

- ◆ **Electricity Consumption** varies significantly between different types of treatment systems. Sand filter systems are largely passive systems that use minimal electricity when compared to aerated/blower/aspirator type systems. In general terms annual electricity consumption can vary from approx \$25/yr to around \$300/yr.
- ◆ **Servicing Intervals & Costs.** These costs also vary between different brands and annual service costs can range from around \$125/yr to approx \$265/yr.
- ◆ **Footprint.** The footprint of a treatment plant is the amount of space needed to fit the system in. Sand filter systems generally have a larger footprint than aerated/blower types.
- ◆ **Noise.** Aerated/blower types are noisier than sand filter systems. Care should be taken not to place the treatment tanks of these systems close to bedrooms/living areas.
- ◆ **Disposal Field.** Care should be taken to ensure that the disposal field is not changed in any manner without prior council approval. Retention/diversion mounds must remain intact. Stormwater runoff/water tank overflows etc should be diverted away from sand filter and/or disposal field. Where garden beds are installed they should be maintained. Planting should be restricted to species list provided in site assessment (do not plant species with invasive root systems in this area or near treatment tank). Maintain signage.

Standard Setback Distances.



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Do I have to use any special type of detergents and washing powders?

To protect the environment and ensure the longevity and optimal performance of your Nature Flow® HSTP we recommend that you use environment friendly detergents and cleaners.

The **Nature Flow® System** uses natural bacteria to break down effluent prior to final disinfection through either an online chlorinator or ultra violet sterilisation. Anaerobic bacteria are used in the primary chamber of the treatment system to break down the solids. Wastewater passes through a suspended solids filter and is pumped through a UPVC raft inside the sand media filter bed. Natural aerobic bacteria are present in the sand media filtration bed and are used to treat the fine suspended solids. Wastewater flows back into the fourth chamber of the tank where it is clear and is pumped through the final disinfection method (chlorine or UV) out to the dispersal field.

(Please note that most treatment systems available today rely on natural treatment processes that require the biological health of the system to be protected.)

Using cleaners and detergents that contain high levels of ammonia (eg bleach) are hazardous to the biological health of your HSTP. These types of cleaners kill off the natural bacteria and micro-organisms used to treat the primary effluent. Reduction of the natural bacteria of your HSTP will result in a much lower level of primary treatment and may produce unpleasant "septic" odours. High levels of nitrogen and phosphorus also contribute to the growth of algae and other less desirable micro-organisms in the environment eg algal growth in waterways.

Environment friendly cleaners are those cleaners that either use no chemicals or reduced levels of chemicals. Conventional cleaning products may use labelling that indicated the phosphorus level of the product. Look for the following symbols on the packaging of cleaning products:

P

This symbol lets you know that the product complies with the agreed Australian industry standard on phosphorus, which imposes a maximum content of 7.8 grams per wash. The standard is designed to reduce the amount of phosphorus entering Australian waterways.

NP

This symbol lets you know that the product contains no added phosphorus. Levels of 0.5% may be present.

There are an increasing number of "green" cleaners and detergents available including products that are chemical free and made from all natural ingredients. Other cleaning products do not require the use of any cleaning products such as Enjo. There are also "homemade" natural cleaning alternatives such as vinegar, bi-carb etc. (The internet has many websites dedicated to alternative cleaners.)

Please Note: References to any cleaning product brand/type above does not indicate any endorsement or otherwise by us.