city of swan

A Guide to Onsite Effluent Disposal Applications

Health Services Information Package

www.swan.wa.gov.au

one city diverse places

Submission of Application

All applications are to be submitted to the City of Swan.

The City can only approve applications for a single effluent disposal system on a single lot for a residence or other development producing no more than 540L per day. For all other applications approval will be required from the Department of Health.

Where Department of Health approval is required, application is still made to the City. The City will assess the application, produce a Local Government Report and forward on the application to the Department for further processing. Please note that in these circumstances an additional copy of plans is required and there is a separate Department of Health application fee.

Lodgement can be made by any of the following;

In Person:	City of Swan Administration Centre, 2 Midland Square, Midland
By Mail*:*	PO Box 196, Midland WA 6936
By Email*:*	swan@swan.wa.gov.au

Note: it is an offence under Section 107(2) of the *Health Act 1911* to start work on the construction or installation of an on site effluent disposal system without approval.

Application Requirements

Required Application Form

Applications are to be submitted using the City's application form 'Application to Construct or Install an Apparatus for the Treatment of Sewage'.

Required Fees

Each application must be accompanied by payment of the required fee.

Required Drawings

Each application must be accompanied by 2 sets of plans where City approval only is required and 3 sets of plans where approval from the Department is required. Drawings are to include the following;

- Scale of drawing, either 1:100, 1:200 or 1:500
- Location of effluent disposal system and all drains and pipework
- Distance of the system from all buildings, boundaries, bores, waterway and waterbodies
- Distance of system from all trafficable areas
- Site plan to have contour lines indicating the slope of the land

Aerobic Treatment Units

If the application is for an Aerobic Treatment Unit, a copy of the maintenance agreement between the owner and the authorised service company must also be included.

Application Fees

The application fee is set by legislation and varys each financial year. For the current fee please refer to the application form. The fee is designed to cover costs associated with the following activities;

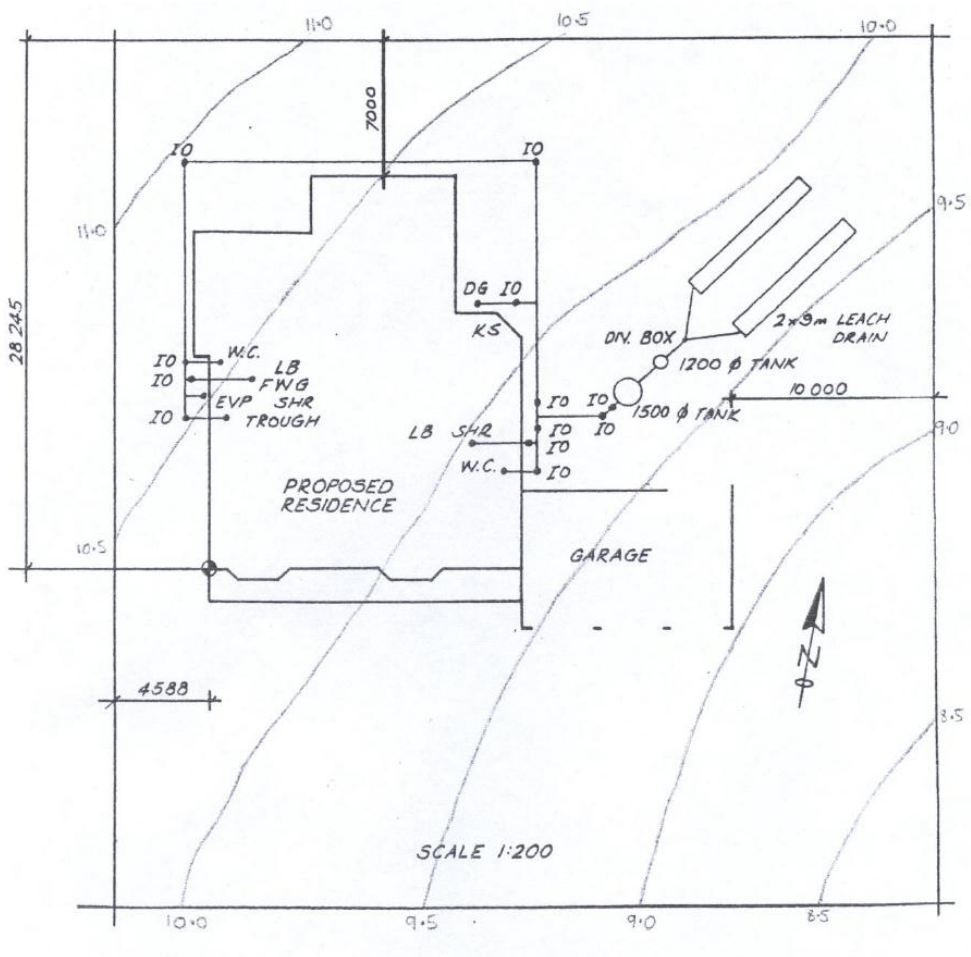
- Preliminary site inspection by an Environmental Health Officer from the City
- Application processing and approval
- Final inspection of the installed system by an Environmental Health Officer
- Issuing a 'Permit to Use'

Payment to the City of Swan can be made either via cash, cheque, money order or credit card.

Applications requiring Department of Health approval are required to pay an additional fee. Please note that the Department will send out a separate invoice for this amount following referal of an application to them by the City.

Example Site Plan

The following is an example of the typical information and level of detail required.



Processing and Approval

The City endeavours to process onsite effluent disposal applications within 14 days of receipt of the application. However this is dependant on the application being complete, a sufficient level of detail being provided, and access to the subject property. Once assessed the approved plans and associated conditions will be returned to the applicant along with a copy being sent to the owner.

Applications requiring approval from the Department of Health will be subject to the Departments time constraints which is beyond the control of the City.

Note: **Any change from what has been approved must be supported by Health Services before installation which may require the submission of ammneded plans.**

Site Assessment

In order to determine if what is being propossed is suitable, the City will normally undertake a site inspection and conduct its own assessment. However the City may require the applicant to demonstrate a properties suitablility. This may be by way of providing bore holes or trench excavations for viewing by the City or by having a geotech investigation undertaken by a suitably qualified consultant. These additional requirements are usually reserved to properties where there are specific concerns.

Final Inspection and Permit to Use

Upon completion of the installation of the system, prior to it being used it must be inspected and passed by the City. To arrange an inspection please contact the City to make an appointment.

If the system has not been installed exactly in accordance with the approved plans then an 'As Constructed' plan must be provided to the City. Where the system in question is an Aerobic Treatment Unit a 'Certificate of Installation' is also required to be submitted.

Once the system has been inspected and passed, the 'As Constructed' plan submitted and if required the 'Certificate of Installation' then the City will issue a 'Permit to Use'.

Note: **It is an offence to use a system without a permit to use.**

Spas

Spas over a 350L capacity shall be connected to a separate disposal system consisting of a single 1200mm diameter sedimentation tank and a single 5m leach drain.

Reduced Sized System

Where sewer is intended to be available within 3 years to the property a reduced sized system may be considered. This is dependant upon site conditions, confirmation from Water Corporation that sewer will be available and sufficient space remaining on the property to upgrade to a full size system if required.

Sump and Pump

Where a sump and pump are also required the sump tank shall have a minimum capacity of 1000L for residential premises or estimated wastewater use for a 24 hour period for commercial premises but regardless not less than 2000L. It shall be sealed to prevent the escape of odours and have both a visual and audible warning device. The audible alarm must be fitted with a mute switch.

Conventional Septic Systems

Convential systems are those most commonly encountered and usually consist of precast concrete septic tanks connected to precast concrete leach drains. There are however a range of new products using new materials which have also been approved for use by the Department of Health.

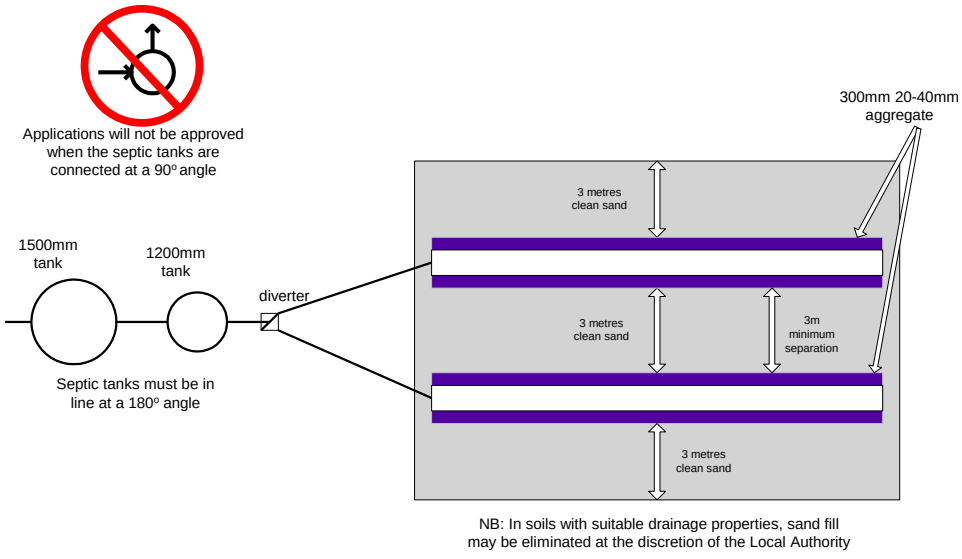
For residential premises they typically consist of two tanks (1500mm and 1200mm diameter) connected to 2 alternating leach drains (600mm internal width and 450mm effective depth). The length of the leach drain is determined by the soil type as well as the number of bedrooms.

TABLE 1:

Number of Bedrooms	Soil Classification			
	sand		loams or gravels	
	Minimum infiltrative area (m^2)	Leach Drain (number x length)	Minimum infiltrative area (m^2)	Leach Drain (number x length)
2 or less	18.8	2 x 6m	28.2	2 x 9m
3	25.4	2 x 8m	38.1	2 x 12m
4 – 5	27.6	2 x 9m	41.5	2 x 13m

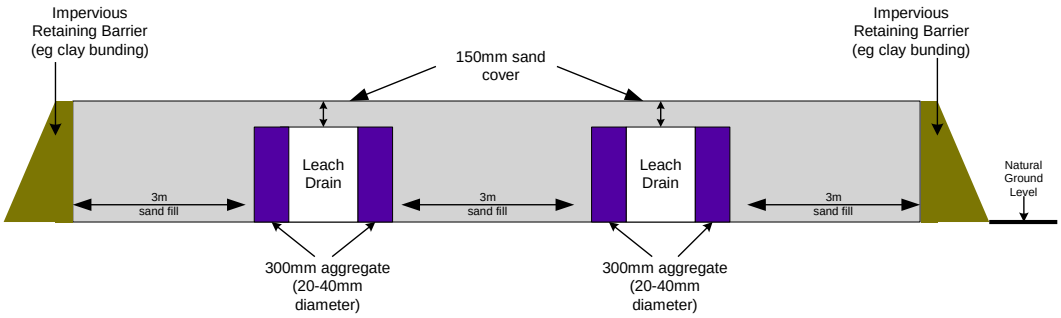
Where clay soils or a high water table are encountered semi or fully inverted leach drains may be required.

FIGURE 1: TYPICAL LEACH DRAIN LAYOUT



NB: In soils with suitable drainage properties, sand fill may be eliminated at the discretion of the Local Authority

FIGURE 2: CROSS SECTION OF FULLY INVERTED LEACH DRAIN



Alternative Systems

Where conventional systems are unsuitable, usually due to environmental constraints, an alternative system may be required. These usually fall within the two main categories of Aerobic Treatment Units or Nutrient Removal Systems.

Aerobic Treatment Units

These function like small treatment plants with their own mechanical aeration, recirculation and disinfection stages. The quality of effluent at the point of discharge is higher than that from a conventional septic system and is disposed of through an irrigation area. The irrigation area is usually subsoil drippers but can be surafce irrigation (sprinklers). Flexibility in the irrigation disposal area shape allows it to be used to suplement garden watering requirements. As it is a mechanical system it is required to be serviced regularly by an authorised service technician and a copy of this maintenance agreement is requirted to be submited with the application. More information on Aerobic Treatment Units, including approved systems and authorised service technicians, can be found on the Department of Health website at http://www.public.health.wa.gov.au/cproot/3912/2/Aerobic%20Treatment%20Units.pdf .

Nutrient Removal System

These systems function similar to a conventional system except that the leach drain is modified to form a cell, usually by having a plastic lining, whereby the effluent is forced to pass through a modified soil. The modified soil strips the effluent of Phosporus before being discharged into the environment. An advantage they have over Aerobic Treatment Units is they do not require regular servicing however irrigation is less flexible is its design. More information on these systems is available from the Department of Health website at www.public.health.wa.gov.au.

Further Information

Additional information, including fact sheets and guidelines on wastewater and effluent may be found on the following websites;

Department of Health – www.public.health.wa.gov.au

Water Corporation – www.watercorporation.com.au

City of Swan – www.swan.wa.gov.au

Should you have any queries regarding any of the above, please do not hesitate to contact the City of Swan's Health Services on 9267 9153.