Shire of Serpentine Jarrahdale

A Guide to Onsite Effluent Disposal Applications

Health Services Information Package

January 2022

Submission of Application

All applications are to be submitted to the Shire of Serpentine Jarrahdale.

The Shire can only approve applications for a single effluent disposal system on a single lot fora 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 Shire.The Shire 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.

Lodging an application is easy online. Lodge, Track, Manage and Pay for an Application to construct or install an apparatus for the treatment of sewage by registering for My SJ Online Portal .

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

Application Form

Applications are required to be submitted using the Shire's application form 'Application to Constructor Install an Apparatus for the Treatment of Sewage'.

Required Fees

Each application must be accompanied by payment of the required fee. The application fee is set by legislation and may vary 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;

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

Payment to the Shire of Serpentine Jarrahdale 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. You will need to contact the Department directly to pay this fee, prior to submitting your application to the Shire. This receipt number is to be noted on the application form mentioned above.

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Aerobic Treatment Units

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

Document and Drawing Requirements

Required Documents

The following should be provided with all applications:

- Completed application form, including all details of the type of system, size, wastewater volumes
- Copy of a floor plan, showing exact location of all fixtures and fittings.
- Copy of a property site plan, showing all buildings, boundaries and structures.
- Signed Maintenance Agreement (if lodging an application for an Aerobic Treatment Unit/ATU.
- ATU system specifications/Department of Health Approval Conditions.
- Correct fees.

If lodging a commercial onsite effluent disposal application, in addition to the above:

- Has all the information in detailed in the Guidance on applying for approval of installation of a commercial onsite wastewater system
- If the wastewater volume per day is greater than 540L, has the Department of Health Application Fee been paid, and the receipt number included?

Note: all the above information is required to lodge an application. An incomplete application will be returned to you.

Additional information that should be supplied in support of the application is recommended as follows:

- Site classification report (often prepared for the purposes of the building application.
- Site and Soil Evaluation Report (often prepared during the creation of a subdivision)
- Any other technical information prepared in place for the property, such as geotechnical reports or detailed design requirements in place from the developer.

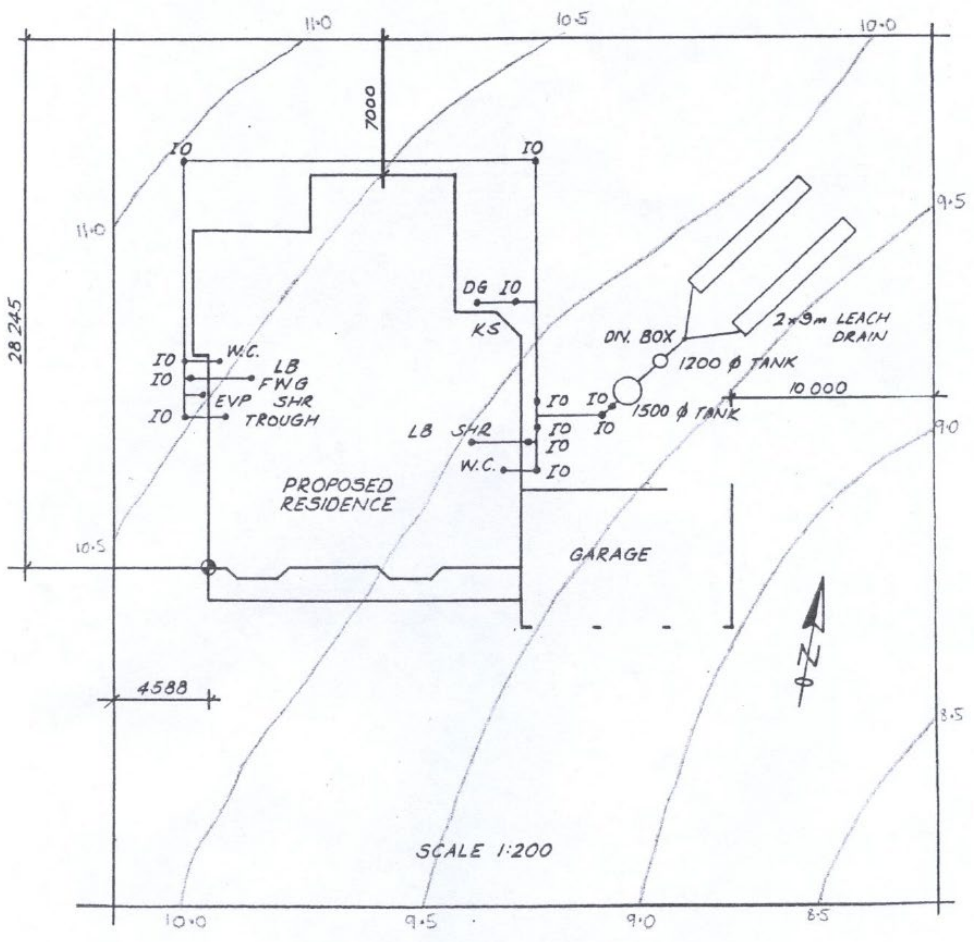
Required Drawings

Each application must meet the requirements of regulation 5 of the *Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974*. Drawings are to include the following;

1) A copy of plan and specifications of the proposed apparatus, that comply with all relevant provisions of these regulations, showing plan and longitudinal section to a scale of not less than 1:50; and

2) A site plan of the premises accurately drawn to a scale not less than 1:100 showing:
   i. the position of all buildings erected or proposed and the position of the proposed apparatus; and
   ii. the position, type and proposed use of all fixtures intended to discharge into the apparatus;
   iii. the position of all drains, pipes, inspection openings, vents, traps and junctions in relation to buildings and boundaries; and
   iv. the size of pipes and fittings and the fall of the drains; and
   v. details of the effluent disposal system; Location of effluent disposal system and all drains and pipework
3) Distance of the system from all buildings, boundaries, bores, waterway andwaterbodies
4) Distance of system from all trafficable areas
5) Site plan to have contour lines indicating the slope of the land

The following is an example of the typical information and level of detail required for a conventional septic system.



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Processing and Approval

The Shire endeavours to process onsite effluent disposal applications within 14 days of receipt of the application. However, this is dependent 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 Shire. Please be aware a Building Permit for a proposed dwelling or other building cannot be approved until the onsite effluent disposal application has been approved. To avoid delay in the building process it is advised to submit your application for an onsite effluent disposal system prior to submitting a building permit application for the building.

Note: Any change from what has been approved must be supported by HealthServices before installation which may require the submission of amended plans.

Assessment Considerations

- Setbacks of the system to wells, bores and creeks, subsoil drains, soakwells, drainage easements
- Setbacks from structures and boundaries, including firebreaks (if applicable) and trafficable areas
- Separation from water table, flood prone areas, sensitive water resources or protected environments such as wetlands
- Soil type and depth to impervious layers
- Land surface slope and low-lying areas subject to inundation

Site Assessment

In order to determine if what is being proposed is suitable, the Shire will normally undertake a site inspection and conduct its own assessment. However, the Shire may require the applicant to demonstrate a properties suitability. This may be by way of providing bore holes or trench excavations for viewing by the Shire or by having a geotechnical 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 Shire. To arrange an inspection, the applicant is required to contact the Shire to make an appointment.

Amendments/alterations to approved plans such as minor variations to the location of tank systems and disposal areas, must be approved by the Local Government and detailed on an ‘As Constructed plan’. If the system has not been installed exactly in accordance with the approved plans, then an 'As Constructed' plan must be provided to the Shire. 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 Shire 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.

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.

Primary Treatment Systems (Septic Systems)

Conventional systems are those most 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, so there a large range of suppliers, the products are widely available and have been used for many years.

The disadvantages of septic systems are that they may not be permitted in areas of environmental sensitivity. The leach drains may also need to be raised either partially or fully out of the ground due to site constraints. Effluent disposal is usually confined to a small area which does not allowed effective reuse of wastewater. Installation of these systems may require heavy machinery to install due to the weight of precast modules.
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

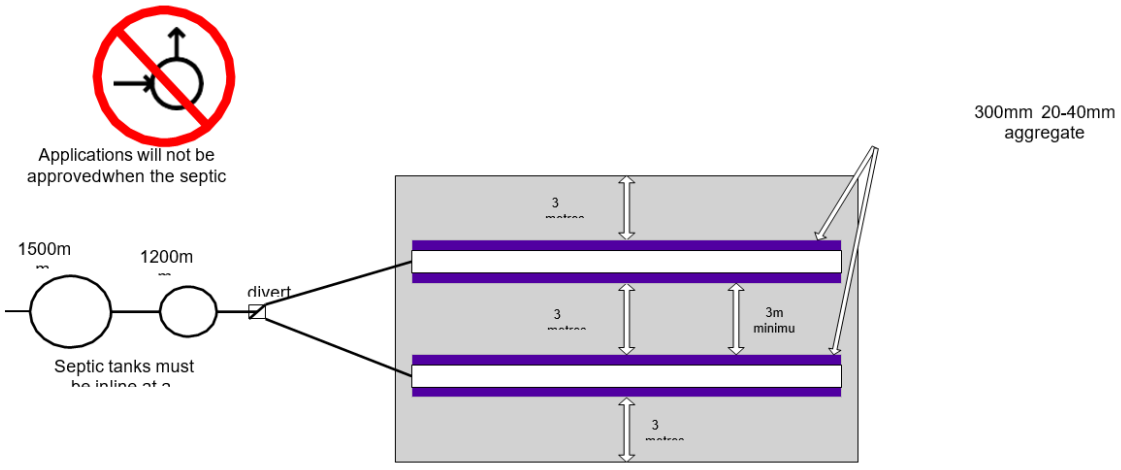
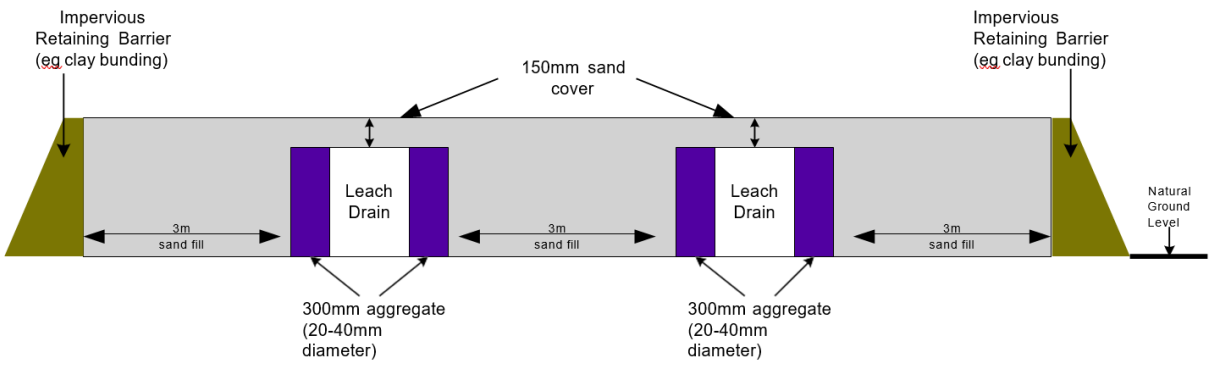


FIGURE 2: CROSS SECTION OF FULLY INVERTED LEACH DRAIN



Secondary Treatment Systems

Where conventional systems are unsuitable, an alternative system may be required. These usually fall within the two main categories of Secondary Wastewater Treatment Systems or other alternative systems. These systems are generally required in areas that are considered environmentally sensitive, such as on properties that are located within 1 km of significant wetlands or within the estuary catchment of the Swan and Scott Coastal Plains. The PlanWA public mapping tool allows users to search for these areas under the Government Sewerage Policy layer, for any address in the Shire.

Aerated Wastewater Treatment Systems

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 surface irrigation (sprinklers). Flexibility in the irrigation disposal area shape allows it to be used to supplement 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 required to be submitted 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 https://ww2.health.wa.gov.au/Articles/A_E/Approved-Secondary-Treatment-Systems

Alternative systems

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 Phosphorus 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 https://ww2.health.wa.gov.au/Articles/A_E/Approved-alternative-treatment-systems

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

Shire of Serpentine Jarrahdale
www.sjshire.wa.gov.au

Should you have any queries regarding any of the above, please do not hesitate to contact the Shire of Serpentine Jarrahdale's Environmental Health Services on +618 9526 1111.