

Septic Tank System Permit Application Guide

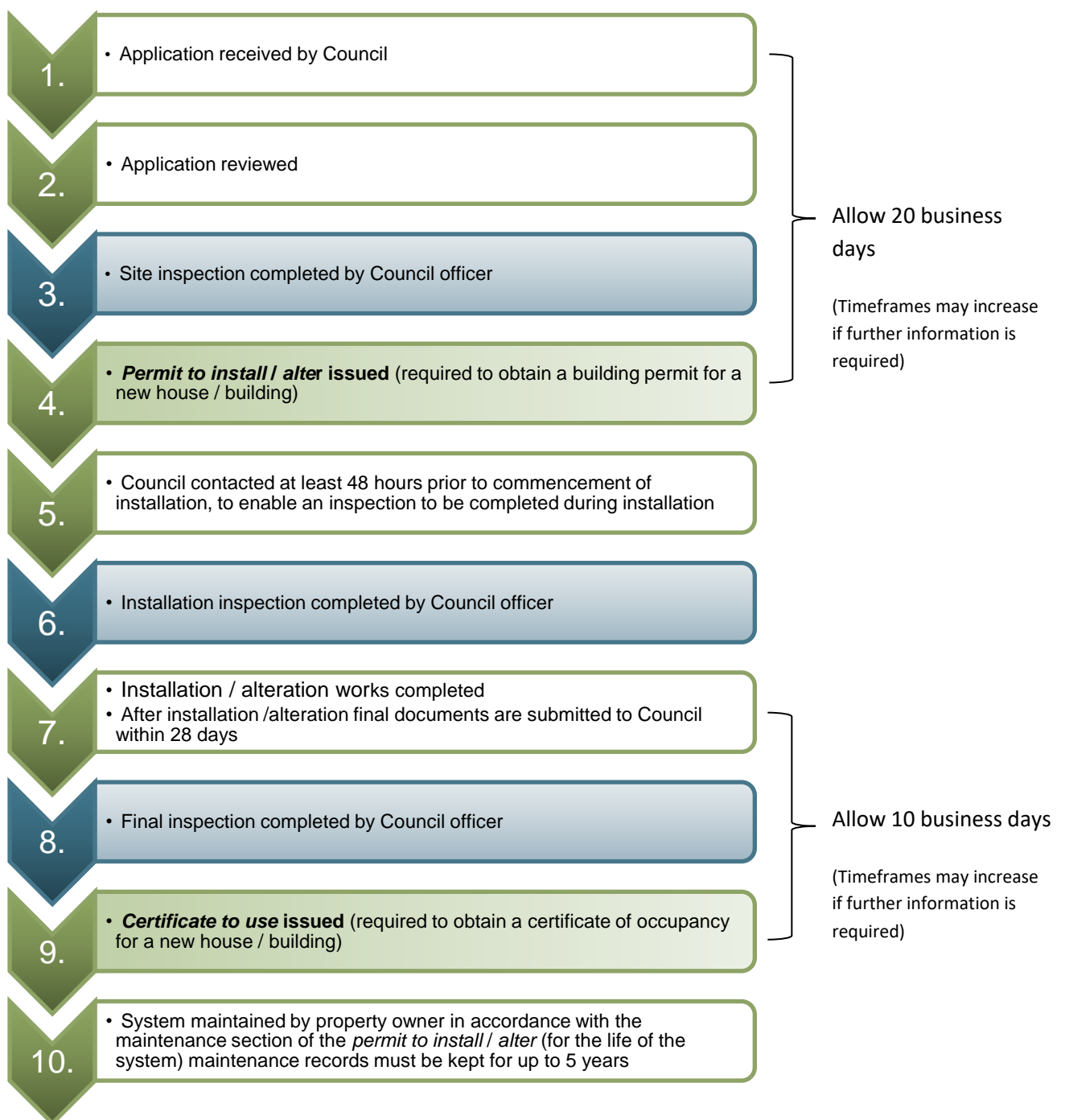


Septic tank system permit process

The *Environment Protection Act 2017* ('the Act') requires property owners and plumbers to obtain a permit prior to the construction, installation or alteration of any part of a septic tank system from Council. This is ultimately to ensure that the system is suitable and will not have a detrimental impact on public health or the environment. The Act enables Council to issue fines or take legal action when any works are completed without a *permit to install / alter*.

In addition, a system must not be used until a *certificate to use* has been issued by Council – penalties may apply.

The main process steps are summarised below. Please note that timeframes listed may increase if additional information or works are required from the applicant, plumber or owner.



Determining what type of permit is required

There are two types of septic tank permits that can be obtained – *permit to install* and *permit to alter*. Please refer to the tables below to determine which permit may be applicable to your circumstances.

Permit to install a septic tank system

Works that relate to both treatment and land application systems such as:

- New system installations;
- Replacements / alterations to both existing treatment and land application system; and
- Upgrade from a primary treatment system to a secondary treatment system.

Permit to alter a septic tank system

Works that relate to only one part of an existing septic tank system such as one of the following:

- Septic tank – replacement or relocation;
- Aerated wastewater treatment system ('AWTS') – replacement or relocation;
- Trenches – replacement, relocation or increase in size; and
- Sub-surface irrigation field – replacement, relocation, and increase in size or replacing above ground system.

If you are unsure about what type of permit is required, please check with Council's Environmental Health staff before submitting your application. This way you will avoid potential delays.

You may choose to submit applications directly, or your plumber/drainer may submit an application on your behalf. Either way remember that you as the owner must sign the application form.

Applications must include the following:

1	Completed and signed application form
2	House / building floor plan (detailing all rooms and plumbing fixtures)
3	Block / locality plan (see page 15)
4	Land capability assessment (if applicable – see page 5)
5	Certificate of title (less than 60 days old) – available at www.landata.vic.gov.au
6	Plan of subdivision (less than 60 days old) – available at www.landata.vic.gov.au
7	A copy of your planning permit (if applicable)
8	<p>Applications for a <u>permit to alter</u> must also provide:</p> <ul style="list-style-type: none"> ○ Inspection report from licensed plumber detailing type, condition and size of septic tank system (both treatment and land application); ○ Block / locality plan must also include location of existing system; ○ Existing floor plan of house or building; ○ Details of proposed changes to both system and house/building (where applicable); and ○ Water testing results if using an existing sand filter over 20 years of age (contact Council to discuss process).
9	Applicable fee (refer to application form for current fees)

**Applications cannot be assessed until all documentation is received.*

Important reminder:

- All septic tank systems must comply with the EPA Code of Practice for Onsite Wastewater Management and the Australian Standards for on-site domestic wastewater management AS/NZS 1547:2012; and
- A licenced plumber/drainer must carry out any septic tank work.



Land capability assessments

If your property / development meets any of the following high risk criteria, a land capability assessment ('LCA') will be required:

- **Small lot size** – less than 4,000 m²;
- **Potable water catchment** – Located within the Moorabool (Sheoaks) Open Potable Water Catchment Area;
- **Ground water** – high quality and within 5 metres of the surface;
- **Slope** – greater than 20%;
- **Flooding** – Lots with greater or equal to 50% flood overlay ('FO');
- **Non-residential development**; and
- **Primary treatment system proposed on a lot sized less than 8,000m²** where clay based soils are evident.



Note: In rare circumstances an LCA may also be requested at the discretion of Council officers, if other high risk features are identified during the assessment of an application.

If you are unsure of whether an LCA is required, please contact Council's Environmental Health Unit prior to submitting your application.

About land capability assessments

LCAs are to be prepared in accordance with **EPA publication 746.1** and the **MAV – Victorian Land Capability Assessment Framework** and must be carried out by a suitably qualified consultant (soil scientist or hydro-geologist).

An LCA will detail the groundwater depth, soil permeability, average rainfall, soil category rating, soil classification and any other aspects of the site relevant to that particular property. The information contained in an LCA report will determine a range of recommended irrigation and effluent disposal designs that are dependent on soil classification.

If an LCA is required for your property, you need to engage an assessor and ask them to contact Council to discuss the assessment with an Environmental Health Officer prior to commencement. This will ensure that the assessment addresses any constraints specific to the site. Ensure you provide the assessor with all the relevant information including future land use plans, such as plans for house extensions or sheds.

Please note that details of areas in Golden Plains Shire which are classified 'high risk groundwater' and 'heavily sloped' are provided in Map 16 of Council's Domestic Wastewater Management Plan Vol 2 (available upon request)

For small lots (less than 1000m² in size), LCAs must include an engineered drawing to scale. This is to demonstrate that the proposed development and septic tank system can be accommodated within the lot and comply with relevant setbacks.

For non-residential developments, LCAs must include proposed daily wastewater generation.

Selecting a septic tank system

This is an important decision to ensure that the system you select for your property will be suitable for the conditions of the site.

System Size (Treatment)

The following minimum sizes apply to the treatment part of an OWMS installed within the Shire (for residential applications where a land capability assessment has not been completed):

No. rooms which could be used as a bedroom	Minimum Septic Tank Size	Minimum Aerated Wastewater Treatment System (AWTS) Size
1	3000L	Varies depending on manufacturer – must be adequate for no. rooms which could be used as bedroom
2		
3		
4		
5		
6	3500L	
7		
8		

Whilst there are many different types of systems available, the most common types of systems installed in Golden Plains Shire are:

1. Primary treatment	2. Secondary treatment
<ul style="list-style-type: none"> ○ Traditional septic tank connected to absorption trenches (usually gravity based) 	<ul style="list-style-type: none"> ○ Traditional septic tank and sand filter (New installations of sand filters are no longer permitted by EPA VIC) connected to sub-surface irrigation. ○ Aerated wastewater treatment system ('AWTS') connected to subsurface irrigation.

Factors that may influence your decision about which system to use include:

- Recommendations in a land capability assessment (if completed);
- Restrictive site conditions i.e. heavy clay based soils, proximity to water courses or other surface water, lot size;
- Cost of installation and ongoing maintenance costs;
- Potential to irrigate garden and garden beds with effluent; and
- Restrictions on your land title relating to onsite wastewater disposal.

Further information about those systems mentioned above and other options available can be found later in this document; on Council's website; and on the Victorian Environment Protection Agency ('EPA') website. You also may wish to discuss with your plumber and / or Council's Environmental Health Unit.

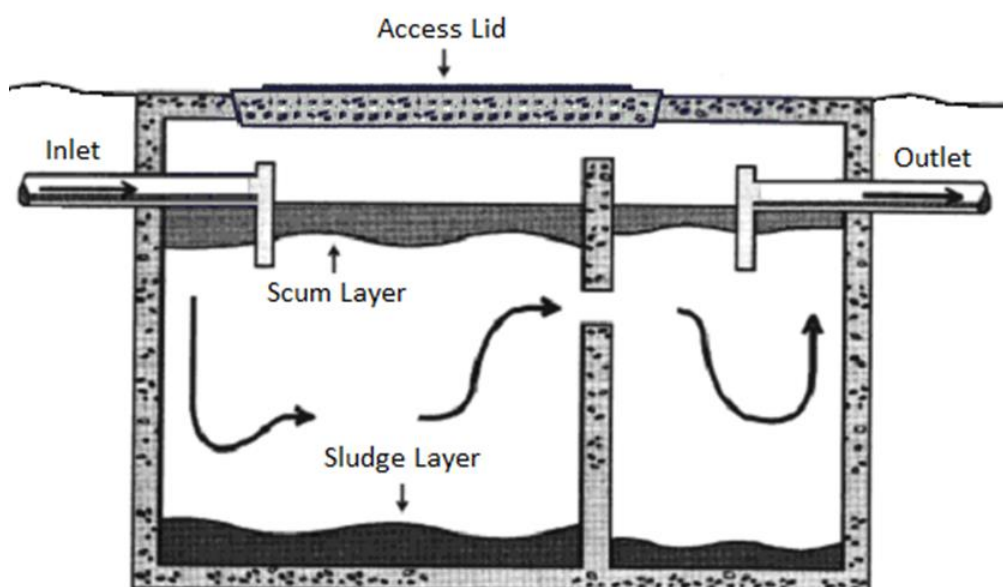


Traditional septic tanks (primary treatment)

Traditional septic tanks must comply with Australian Standards AS/NZS 1546.1. This requires them to be at least 3000 Litres in capacity. Wastewater is retained within the tank for a minimum of 24 hours where solids settle to the bottom of the tank and anaerobic digestion of organic solids occur. The liquid content is discharged to absorption trenches preferably by gravity, or by a pump well where sufficient fall cannot be achieved.

Septic tanks need to be installed in stable ground and all inspection openings must be at ground level so that the tank can be located and maintained i.e. inspection openings, inlet of septic tank and access lids. After installation, septic tanks must be de-sludged at least once in every three years.

See diagram below, which illustrates how a traditional septic tank works.



Aerated wastewater treatment systems (secondary treatment)

AWTS' are a secondary treatment system installed prior to a land application system (typically sub-surface irrigation).

AWTS' aerate effluent from a septic tank (or primary chamber) using electrically powered blowers. In addition to aeration, clarification and disinfection is often used to achieve a higher level of treatment.

AWTS' are required to be serviced by a qualified service agent you are required to hold onto the report for 5 years. AWTS' are required to be installed in accordance with the relevant EPA certificate of approval for the system. A list of approved AWTS' can be found on the Victorian EPA website located at <https://www.epa.vic.gov.au/for-community/environmental-information/water/about-wastewater/onsite-wastewater-systems>

Absorption trenches (primary land application)

Absorption trenches are a form of land application system and are typically installed after a traditional septic tank. Absorption trenches must be constructed in accordance with Australian Standards AS/NZS 1547.

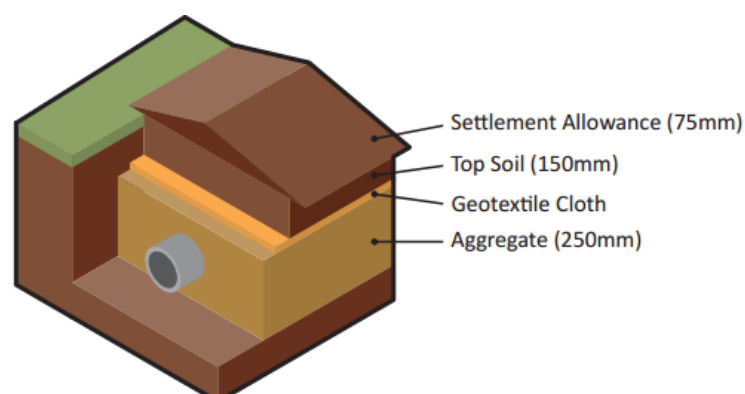
Absorption trenches are a traditional method of disposal of wastewater from primary treatment septic tank systems. The trenches are constructed with a "slotted pipe" or "arch tunnel" to distribute the effluent evenly along the trench.

The effluent is disposed of by:

- a) Absorption into the surrounding soils
- b) Transpiration into roots of grasses above the trench and
- c) Evaporation through the top-soil.

Absorption trenches are to be a maximum length of **33 metres**, a **minimum 2 metres apart**, each installed with a distribution box at the beginning of the trench with access at ground level. Trenches must be installed along the contours of the land and not run downhill. The top of the trench is to be mounded to allow for natural settlement of soil and to stop surface water entering the trench. Absorption trenches are not suitable in heavy clay based soils.

Construction of trenches are to be in accordance with the following diagram:



Aggregate is to be 20-40mm clean, hard quartz stone or other approved stone free of dust, dirt, loam, soft particles, organic and other foreign matter.

Trenches are to be installed a maximum of 400mm deep. Deeper trenches will cause the system to fail. Where sufficient fall cannot be achieved between the septic tank and absorption trenches to maintain this depth, a pump well will need to be installed prior to the trenches.

It should be noted that absorption trenches typically have a lifespan of approximately 25 years (depending on usage and other site specific factors). All applications must also designate a duplicate 'reserve' area that is equal to the size of the trenches proposed in case of system failure or number of trenches being inadequate.

Sub-surface irrigation (secondary land application)

Sub-surface irrigation is a land application system that can only be installed after effluent has been secondary treated (typically connected after a septic and sand filter system or AWTS).

Sub-surface irrigation disposes of effluent through a network of pressure-compensating pipes and emitters in the sub-soil (100-150mm below ground level). Sub-surface irrigation dispersal lines should be installed along the contours of the land and not run downhill to maximise the spread of effluent distribution throughout the soil over time.

As there are different types of pipe available, irrigation pipe is required to be approved for use with wastewater. Irrigation pipe must be purple or lilac in colour. Irrigation systems are to be fitted with an in-line mesh filter, an air valve and a flush valve as per manufacturer's specifications.

Larger irrigation systems (generally above 400 m²) should be zoned in accordance with pump capacity. Sub-surface irrigation can be used in clay based soils in combination with gypsum application and can be used to irrigate gardens and garden beds. Irrigation systems need to be flushed periodically and the filter cleaned regularly (normally fortnightly to monthly).

Land application system sizing (trenches and sub-surface irrigation)

An LCA will determine the size of your land application system in the report. If an LCA is not required, refer to this section.

To assist property owners who are not required to obtain an LCA, the tables on page 11 outline the minimum size land application system required to disperse treated wastewater. These figures have been calculated based on AS/NZS 1547:2012 and the EPA Code of Practice. They are based on a medium-heavy clay dominated soil type (Category 6 – DIR/DLR 2 mm/day).

The land application size areas provided in the tables are a minimum that will be approved within Golden Plains Shire Council, unless an LCA is provided which demonstrates that such area can be reduced.

Your required land application area size will be confirmed after an assessment of the site and the supporting documentation has been completed by Council officers. Please note that the installation of high-water volume features, such as spas, increases the size of land application systems required.

Land application system sizing and location

Please refer to the tables below, which stipulate the minimum size of land application system that is required, which is dependent on the number of habitable rooms in your dwelling and location within the Shire.

To suit higher rainfall expectancy, properties in the northern part of the Shire (typically properties north of Rokewood and Maude) must be 10% greater in size.

Detailed mapping on this criterion is available in map 12 of Council's Domestic Wastewater Management Plan – Volume 2, which is available on from Council on request.

Minimum sizes required for absorption trenches (with PVC pipe/rein or arch drain)

Number of habitable rooms	Minimum size (south of Rokewood and Maude)	Minimum size (north of Rokewood and Maude)
1	60 m ²	66 m ²
2	90 m ²	99 m ²
3	120 m ²	132 m ²
4	150 m ²	165 m ²
5	180 m ²	198 m ²

Minimum sizes for sub-surface irrigation (secondary treated effluent only)

Number of habitable rooms	Minimum size (south of Rokewood and Maude)	Minimum size (north of Rokewood and Maude)
1	150 m ²	165 m ²
2	225 m ²	248 m ²
3	300 m ²	330 m ²
4	375 m ²	413 m ²
5	450 m ²	495 m ²



Note: A habitable room includes any room that may be closed off with a door, such as a study, library or sunroom that could be used for the purposes of a bedroom.

System Size (Land Application)

The following minimum sizes apply to the land application part of an OWMS installed within the Shire (for residential applications where a land capability assessment has not been completed):

Land Application				
No. rooms which could be used as a bedroom	Southern Part of Shire (Batesford, Bannockburn, Lethbridge, Inverleigh and Teesdale regions)		Northern part of Shire (Dereel, Haddon, Maude, Meredith, Rokewood, Scarsdale, Smythesdale and Ross Creek regions)	
	ETA and Absorption Trenches Minimum Length (Width 1m)	Subsurface Irrigation Minimum Size	ETA and Absorption Trenches Minimum Length (Width 1m)	Subsurface Irrigation Minimum Size
1	60m	150m ²	66m	165m ²
2	90m	225m ²	99m	248m ²
3	120m	300m ²	132m	330m ²
4	150m	375m ²	165m	413m ²
5	180m	450m ²	198m	495m ²
6	210m	525m ²	231m	578m ²
7	240m	600m ²	264m	660m ²
8	270m	675m ²	297m	743m ²

Where to position a septic tank system

Factors to consider when deciding a suitable location to position a septic tank system include:

- Recommendations from a land capability assessment (if applicable);
- Restrictions on title or planning permits;
- Systems must be a permanent dedicated area within the property boundaries and cannot be built over;
- Locations of future subdivisions, sheds, house extensions, swimming pools, tennis courts, dog yards, clotheslines, garden paths and driveways;
- Systems must be protected from vehicles and livestock;
- Systems must not be placed in a paddock that will be planted and harvested;
- Consider landscaping plans, as sub-surface irrigation may be used in garden beds;
- Required fall may be required from the house / building to the septic tank system (discuss with your plumber);
- Location of internal plumbing and main outlet from the house / building;
- Setbacks to site boundaries, surface water, dams, drainage easements, storm water drains, services, buildings and other features (see page 12-13); and
- Septic tanks are installed at ground level so lids, vents, alarms are visible (which you may consider to be unsightly).

After considering these factors, if you are still unsure about a suitable location it is best that you discuss with your plumber or Council’s Environmental Health Unit.



Setbacks / buffer distances

Setbacks / buffer distances are predetermined by the EPA and must be maintained between specific site features and any part of the septic tank system (both treatment and land application).

Please refer to the table below, it should also be noted that these also apply to any features on neighbouring properties.

Landscape feature or structure	Setback distances (m)	
	Primary treated effluent	Secondary treated and greywater effluent
Building		
Wastewater field up-slope of building	6	3
Wastewater field down-slope of building	3	1.5
Wastewater up-slope of cutting/escarpment	15	15

Allotment boundary		
Wastewater field up-slope of adjacent lot	6	3
Wastewater field down-slope of adjacent lot	3	1.5
Surface waters (up-slope of)		
Dam, lake or reservoir (potable water supply, includes water for food production)	300	300
Waterways (potable water supply)	100	100
Waterways, wetlands (continuous or ephemeral, non-potable); estuaries, ocean beach at high-tide mark; dams, lakes or reservoirs (stock and domestic, non-potable)	60	30
Groundwater bores		
Potable or non-potable	20	20
Services		
Water Supply pipe	3	1.5
Wastewater up slope of potable supply channel	300	150
Wastewater field down-slope of potable supply channel	20	10
Gas supply pipe	3	1.5
In-ground water tank	15	7.5
Stormwater drain	6	3
Recreational areas		
Children's grassed playground (school, council, community or other children's playground)	6	3
In-ground swimming pool	6	3

Providing a block / locality plan

A detailed and legible block / locality plan must be provided with your application.

These plans are just as important as your house / building plans - rough sketches with no site details will not be accepted.

Failure to provide a suitable plan with your application will result in a delay to the processing of your permit, as you will be asked to resubmit.

If your neighbour has a dam on their boundary, or you have a dam or waterway running through your property, it must be shown on your plan. An appropriate site plan will ensure that everyone understands the required works and your permit can be issued without delay.

The following details need to be included on your plan:

- Locations and dimensions of all buildings or proposed buildings;
- Locations and dimensions of all current and proposed structures such as swimming pools, tennis courts, dog yards, garden paths, driveways and cubby houses;
- Water tanks, water pipes, storm water drains and legal point of discharge;
- Driveways;
- Underground power, water and telecommunications connections;
- Sites with hills, an indication of surface runoff;
- Location of proposed system including disposal field;
- The position and direction of North;
- The fall of the land;
- Distances from the closest part of the septic system to site features including; property boundaries, buildings, sheds, other services, waterways, dams and easements; and
- Blocks less than 2000m² in size will require an engineered drawing to scale to demonstrate that the septic tank system will fit within property boundaries and comply with relevant setbacks.

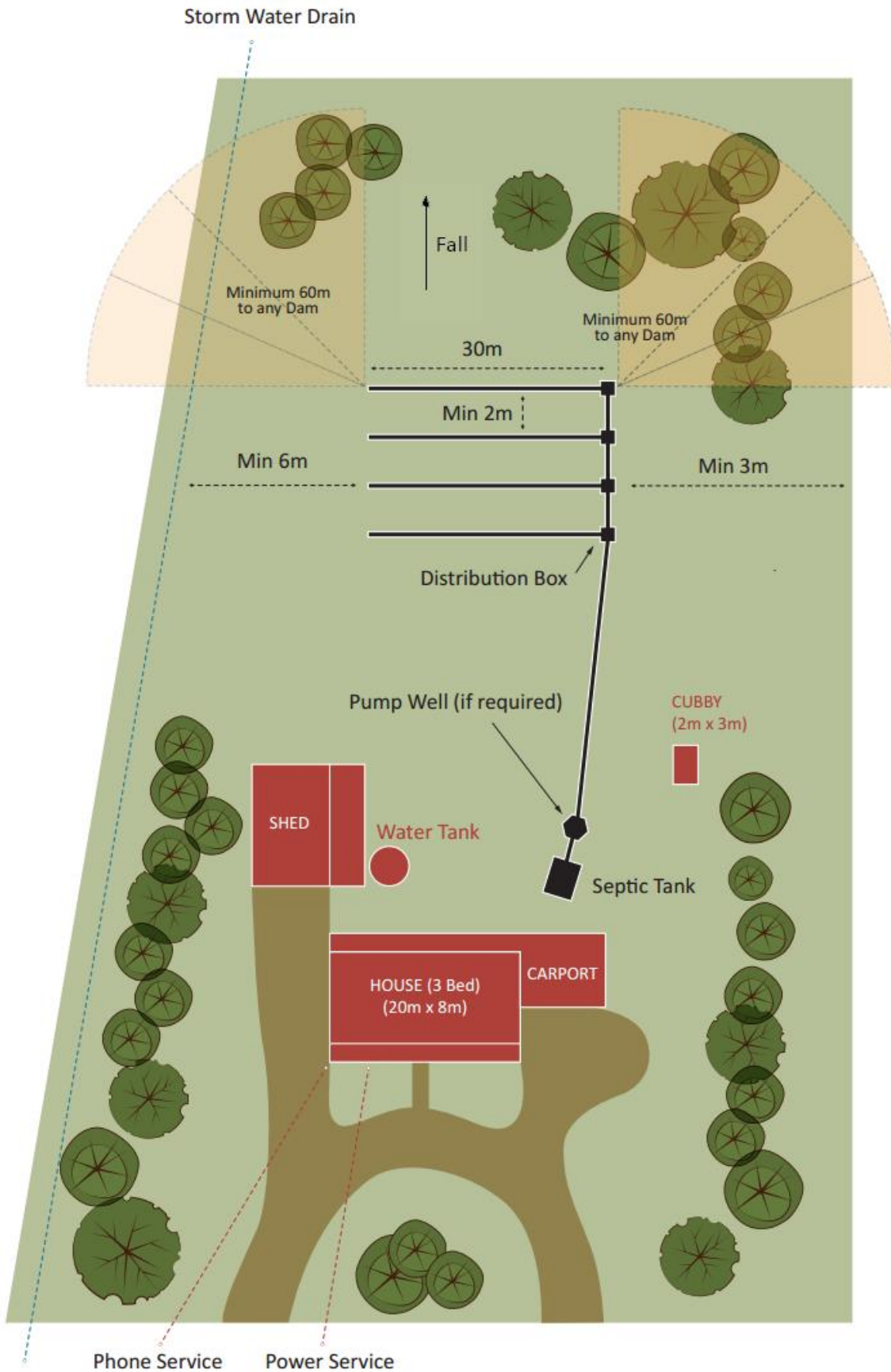


Note: A suitable block / locality plan is required – a poor plan may result in permit processing delays as it will need to be resubmitted.

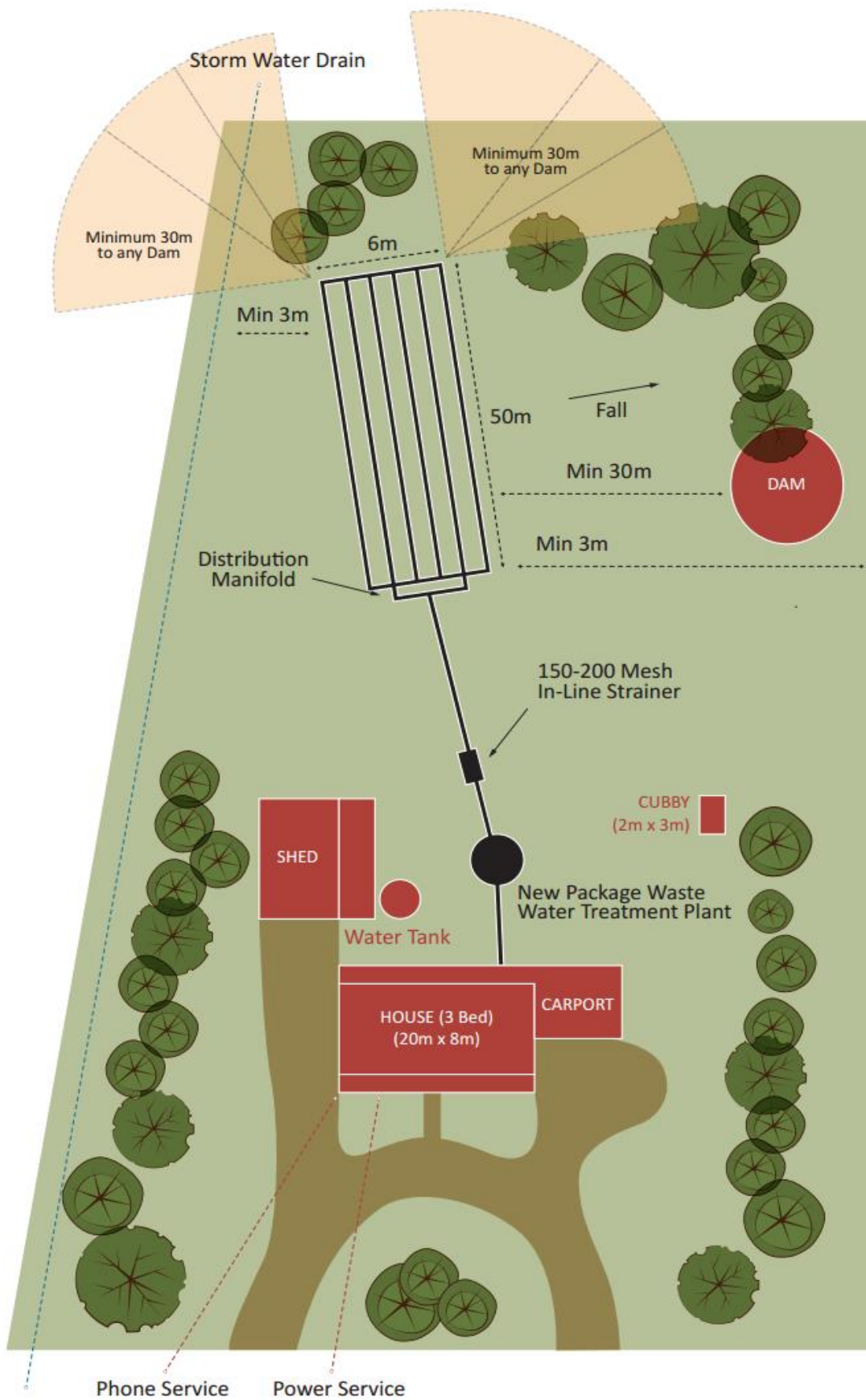
Plans don't have to be professionally drawn but they must be clear, legible and include the detail explained on this page.

Refer to the following pages (15 and 16) that provide examples of suitable block / locality plans.

Suitable block / locality plan – example 1 – Septic tank and absorption trenches



Suitable block/locality plan – example 2 – AWTS and subsurface irrigation



Permit to install / alter

Council will issue a *permit to install / alter* if:

- The proposed system is suitable for the house / building;
- The application is filled in correctly (including a detailed block / locality plan on the page provided);
- The application fee has been paid; and
- Copies of other required information are provided.

If a permit has been issued and the applicant changes details of the system and / or the registered plumber, then an application to amend a permit must be completed. A fee will apply for this application. This form is available on Council's website

<https://www.goldenplains.vic.gov.au/resident/building/septic-systems>

The *permit to install / alter* is valid for two years from the date of issue. Should the works take longer than two years, the applicant must complete an *Application for a Permit Extension* prior to the expiry date. A fee will apply for this application. This form is available on Council's website -

<https://www.goldenplains.vic.gov.au/resident/building/septic-systems>

No work can commence on the installation of your system until you have received your septic tank permit. Please note that all permits are issued with conditions and both property owner and plumber must comply with these conditions.

Council inspections

All septic systems require mandatory inspections that must be conducted by Council's Environmental Health Unit.

Three Inspections are typically carried out:

- 1) Prior to issuing a *permit to install*;
- 2) During installation; and
- 3) After installation when all works have been completed.

Council must be contacted at least two business days prior to installation to arrange a suitable time to conduct an installation inspection.

To arrange an inspection please contact Council's Environmental Health Unit on (03) 5220 7111 or email enquiries@gplains.vic.gov.au.

Allow 10 business days after final documentation is received (refer to the next page) for a final inspection to be carried out and a *certificate to use* being issued.



Note: Please allow 20 business days for processing *permit to install / alter* applications. Further delays may apply if further information is required.



Note: All inspections are mandatory and will determine whether Council can issue a *permit to install / alter* and *certificate to use*. Failure to book in an installation inspection may result in a *certificate to use* not being issued and fines may apply.

Certificate to use

Final documentation is required within 28 days after a system has been installed or altered. Council is unable to conduct a final inspection and issue a *certificate to use* until copies of the following documents are provided:

- A *plumbing certificate of compliance*;
- An *as constructed* block / locality plan to the satisfaction of Council;
- A *sand certificate of analysis* (where a sand filter has been installed);
- An *AWTS service agreement* (where an aerated wastewater treatment system has been installed or altered); and
- A receipt demonstrating that an existing septic tank has been pumped out within the last three (3) years (where a system has been installed or altered that includes an existing septic tank).



Note: A *certificate to use* is legally required before a system can become operational. Fines or legal action may apply if a system is used before this certificate has been issued.

Ongoing maintenance

Ongoing maintenance is very important to ensure that septic tank systems continue to function as designed and do not pose a risk to public health or the environment. Maintenance records must be kept for up to 5 years in accordance with the act.

For the life of the septic tank system, property owners must also comply with the maintenance section of the *permit to install / alter* and *certificate to use* issued by Council. Council may issue fines to owners who fail to comply with the maintenance requirements in their *permit to install / alter*. It is therefore recommended that septic tank permits and certificates to use be kept in a safe place for future reference.

