Information You Should Know Before Building Your Home

LOW PRESSURE SEWER SYSTEMS

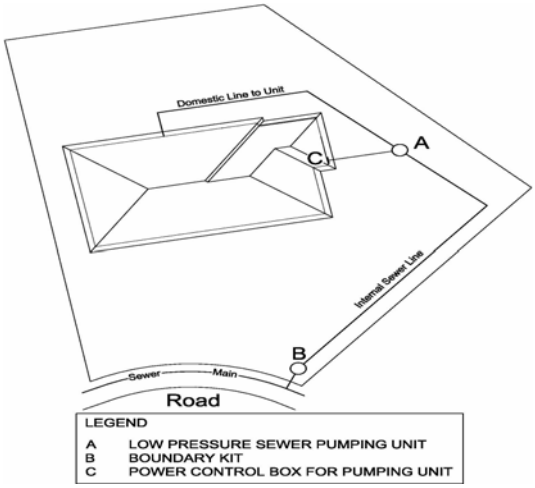
INTRODUCTION

Council records show you have recently purchased a vacant property in the Forest Hills, Hills Plain East, Wentworth Ridge and Highlands Estate area of Hills Plain, Tamworth. Property in these locations will be connected to Council's sewer reticulation via low pressure sewer rather than conventional gravity sewer.

This information sheet has been prepared to provide information and to answer any questions you may have about "Low Pressure Sewer Systems" and to highlight some things you must think about when building your home

DESCRIPTION OF THE SYSTEM

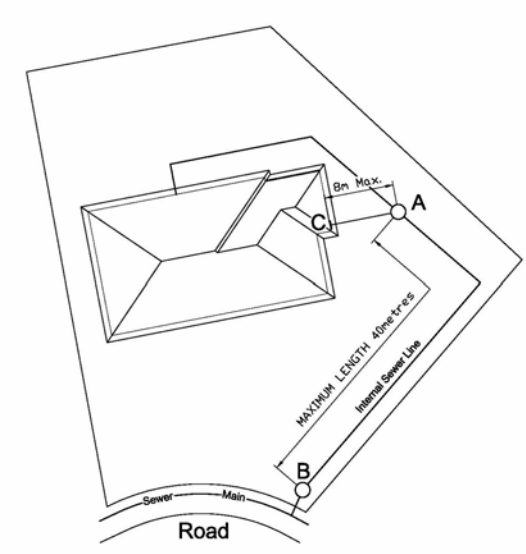
At the heart of the system is a pre-fabricated plastic (in some cases fibreglass) tank that provides wastewater storage, grinding and pumping in a single self-contained unit. This is called a "Low Pressure System Unit" (unit). Tamworth Regional Council owns and operates the unit and the pipe work between the unit and reticulation system. A small diameter discharge pipe connects the unit to a small box (boundary kit) installed inside your property and then to the pressure sewer reticulation in the road reserve.



A non-return valve (to prevent backflow from the pressure sewer) and isolation valve is housed in this boundary kit. The unit is wired to the household power supply and controlled by a small panel located near the unit (control panel), either on a wall, fence or pole.

BEFORE INSTALLATION

You must consider the location of the unit when designing you home as there are a number of criteria that must be complied with to minimise cost and ensure your sewer installation works effectively.



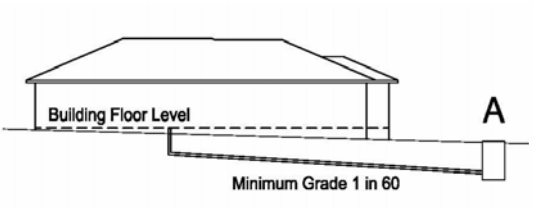
Distance from the Boundary Kit

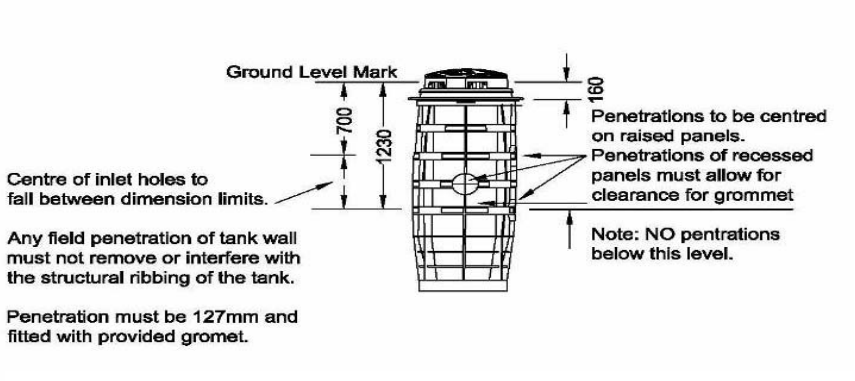
Provided the length of the domestic line from the unit to the boundary kit is 40 metres or less you will not have to pay anything for the installation of the unit – the property developer has already paid Council to install a standard unit which includes up to 40 metres of domestic line. If you require a longer domestic line you will be required to pay an additional amount to Council depending on the additional length required.

Also, additional payment will be required if the power cable from the house to the unit is greater than 8 metres in length. The maximum length of power cable available is 12 metres.

Location relative to your home

To ensure sufficient, but not excessive fall from your home to the unit please discuss with or advise your builder that the level of the floor and the level of the unit must comply with the criteria shown.





ONCE INSTALLED

Once installed you need to be aware of and comply with the 'Golden Rules' relating to the operation of the low pressure sewerage system at all times. These are:

1. Do not attempt to use any internal toilets, taps etc until the pressure sewer unit has been commissioned. To see if your pressure sewer unit has been commissioned, check the alarm panel which may be located on the wall of the house, shed, garage or on a stand alone post, if located away from the house. If your unit has been commissioned, an orange sticker is placed on the alarm panel. Internal toilets/taps may now be operated.
2. Do not attempt to repair the pressure sewer unit yourself. Your actions may void the warranties attached to the system. Tamworth Regional Council will maintain your pressure sewer unit on your behalf.
3. Do not go into the pumping unit; indeed do not even take the lid off. The inside of the pumping unit is a confined space working environment that could be lethal without the appropriate training and equipment.
4. Do not discharge into the pressure sewerage system any prohibited substances listed in the FAQ section.
5. Do not connect your roof or yard drains into the pressure sewerage system as the system is not designed to accommodate these additional flows.
6. When going on holidays, flush the pressure sewerage system by running a tap until the pump activates and runs for about 30 seconds. Filling the bathtub and discharging it will achieve such a flush.
7. If leaving the building in an emergency, turn off all power, including the power to the pumping unit.
8. Familiarise yourself with the location of the property delivery line, and avoid damage to the pipeline and pumping station.

Outlined below are answers to some frequently asked questions about "Low Pressure Sewer Systems".

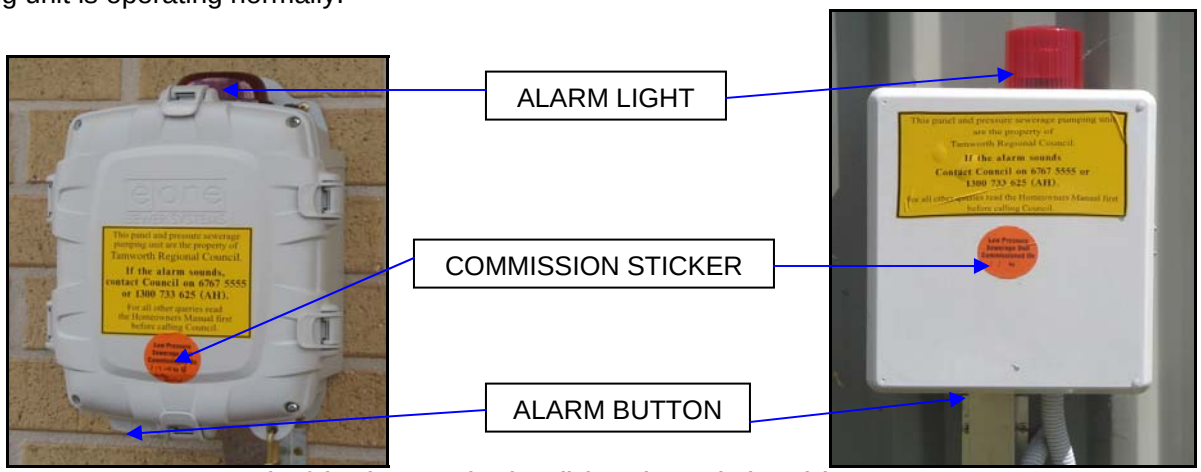
FREQUENTLY ASKED QUESTIONS (FAQ)	
How does the pressure system operate?	All wastewater generated from a property is directed to the unit. When the volume in the unit reaches a preset level a switch activates the grinder pump. The pump operates until the level is reduced to a cut-off point. The amount of pump operation varies with the waste flows from the house. Generally, it is higher in the mornings and evenings. All units pump into a pressure sewer collection system generally located in the road reserve and transferred to the treatment plant.
How will I know if the unit needs maintenance?	Should something go wrong with the unit or the collection system, the water level in the unit will reach an alert trigger that sets off both a visible and audible alarm. The audible alarm can be manually turned off at the control panel. The property owner would then contact Tamworth Regional Council and service personnel would assess the problem. If it was an emergency that could not wait until the next day they would attend to fix the problem. Should the pump require repairs, it can be readily removed and replaced with another pump by the service personnel. Refer to Page 4 for further information.
What if I can't find the location of the Internal sewer line on my property	Council will record the location of the internal sewer line at the time of construction. This information is available from Council by calling 6767 5555

FREQUENTLY ASKED QUESTIONS (FAQ) Cont'd	
What level of odour / noise can be expected from the pump unit?	Experience has shown that the noise and odour levels associated with the unit are negligible. The ground surrounding the buried unit absorbs the majority of noise levels. Some minor odours may be noticed for a short period following a holiday house being left vacant for long periods but is similar to a conventional gravity system. By comparison, odours emanating from septic tanks caused by shock loading when the house is occupied after a long vacancy would be significantly reduced.
How are the pumps protected from access?	The unit and the control panel are secured against unauthorised access. Tamworth Regional Council employees and Council contractors would be the only people authorised for access.
What is the chance of blockages in the pipes?	All the solids in the wastewater are ground to a slurry therefore there is a very low likelihood of a blockage beyond the unit.
Who is responsible for the power supply cabling?	The control panel and cable to the pump is owned and operated by Tamworth Regional Council. All connecting electrical cable work is installed within the required protective conduit.
What should I do if I want to construct a pool or install a spa after my low pressure sewer unit has been installed?	Backwash from pools and spas is directed to the low pressure sewer unit. In some cases the increased flow necessitates the installation of an additional storage unit adjacent to the existing unit to allow backwash water to be pumped away without triggering the high level alarm. If you are considering a pool or a spa you should contact Council (6767 5555) during office hours to discuss.
What is the average annual power cost to run the pump units?	Based on current power tariffs the estimated annual cost to operate the pump units is between $25 and $35 for an average family household. This cost is the responsibility of the property owner.
Am I going to be charged for repairs?	There is no cost for repairs carried out by Council as these are covered in your sewerage rates. However, Council may charge for damage done to the pipeline located on your property and / or damage to the pump if prohibited substances are placed in the tank.
What should NOT be discharged into the sewerage system?	To avoid blockages or damage to the pump and/or grinder unit, the following substances should not be discharged into your pressure sewer system: - glass or metal - plastic objects - lubricating oil / grease - chemicals - sanitary napkins, nappies, rags, clothes etc. - flammable materials - kitty litter or gravel - gasoline or diesel
What happens when/if there is a power failure?	The unit has in-built storage that would allow for the restricted use of wastewater facilities during the power outage. Facilities such as showers and baths should be kept to a bare minimum until power is restored.
What if the pump breaks down?	If the pump breaks down, an audible alarm will sound to warn you that the system is not working. If this occurs, it DOES NOT mean you can no longer use your sewerage system. The pressure sewer unit has around 430 litres of storage above where the alarm will sound. Refer to Page 4 for further information.
Can I cover the pressure sewer unit?	You cannot cover the lid of the unit as it needs to be readily accessible if repairs are required to the unit. There is also an air filter in the lid which must be exposed. Council will not be responsible for repairs to landscaped areas if there is not sufficient access for Council staff to undertake any necessary repairs to the pressure unit.

WHAT TO DO IF AN ALARM SOUNDS

Step 1 – Turn off the audible alarm

The audible alarm can be turned off by pressing the button on the underside of the alarm panel. This panel will be mounted on the wall of the house, shed, garage or on a stand alone post, if located away from the home. The alarm light cannot be turned off by the resident. It will be turned off when the repairs are completed and the pumping unit is operating normally.



Example of the alarm panels, alarm light and commission stickers.

Step 2 – Determine if there has been a power blackout

In the event of a power failure the alarm will not sound. During power failures you should minimise the overall volume of wastewater being generated by keeping showers brief etc. When the power is restored the alarm may sound because the volume of wastewater stored in the unit has reached the high level trigger point. In this event turn off the audible alarm and wait approximately 1 hour. In this period the unit should pump out the stored wastewater, return to normal operation and the alarm light should go off. If during the hour the alarm sounds again or at the end of the hour the alarm light still has not turned off contact Council as per step 3

Step 3 – Report the alarm to Council (6767 5555 all hours)

If there has not been a power failure (step 2), before you report an alarm to Council you should investigate whether or not there is sewerage coming from the inspection opening upstream of the pump unit, if there is any seepage coming from the ground, if there are any noticeable odour problems, or is the pump making any unusual noises.

Step 4 – Agree with Council when repairs are to be carried out

When you are speaking to Council staff, you may be asked if there is an urgent need for the repairs to be carried out immediately. If you are unsure staff will attend and assess the situation. Normally the preference is to undertake any repairs the next morning to minimise the inconvenience to residents and neighbours, to minimise potential damage to the property (particularly landscaping), and minimise system operational costs by avoiding costly after hours call outs.

Step 5 – Minimise wastewater generation until the unit is repaired

In the period between when the alarm sounds and when it is repaired, you should minimise the overall volumes of wastewater being generated. This can be done by not using washing machines or automatic dishwashers whilst the alarm is active, keeping showers brief or where the resident takes a bath, leave the plug in until after the alarm has been cancelled or bucket out the water onto the lawn, switching off any drainage (automated or not) from swimming pools, spa's etc until the unit has been repaired, and practicing good water savings techniques such as not leaving taps running etc.

Step 6 – Ensure the Council staff have access to the pumping unit

Ensure Council staff have access to the pumping unit. Staff may need to place a lifting frame above the pumping station to lift out the pump or need to carry the pump on a trolley to their truck.

Step 7 – Confirm the pumping unit is repaired before reverting to normal operation

Council staff will inform the resident before leaving the site that all repairs have been carried out. If you have been away from the property you need to check that the repairs have been completed before returning to normal operation. This can be determined by the alarm light no longer being illuminated.