What You Need to Know About Pressure Sewerage Systems
A Householder's Guide

This brochure is intended to provide a basic guide to real estate agents and perspective home owners to better understand what is involved where a pressure sewerage unit is installed on a property.

What are Pressure Sewerage Systems?

Pressure sewerage systems comprise a small on-property pumping station (just a bit smaller than a septic tank). This pumps the household sewerage into a reticulation system of small diameter pipes laid at minimum depth, rather than grade. Those reticulation pipes then carry the sewage to either the treatment plant or to a more conventional gravity system.

The pumping unit is normally a plastic/fiberglass storage vessel of differing storage capacities. There is also a small control panel incorporating an alarm, which is either mounted on a steel post or on the side of the dwelling.

Sewerage from the house flows down into the storage vessel. When the volume in the tank reaches a preset level, the pump will automatically turn on and pump out the sewage. Typically, the pump will operate for one to two minutes at a time, again turning off at a preset level. If the pump fails to operate, the volume in the storage vessel will then build up to a level where an alarm sounds. The resident is then asked to contact Richmond Valley Council who will carry out the repairs on the unit. To the resident, the system is essentially the same as a conventional gravity system, except that they are required to contact Richmond Valley Council if the alarm should sound. The alarm can be muted and will turn off after a preset time.

Are Pressure Sewerage Systems Second Class Sewerage Systems?

No! Pressure sewerage systems are one of many viable sewerage service alternatives that are available to modern sewerage authorities. They are normally used where they represent a lower cost alternative than conventional sewerage systems. This generally happens where the area to be served:

- Is flat, and requiring a large number of sewerage pumping stations
- Has unstable soils and/or requires deep excavations
- Is in water-charged ground
- Is in rocky conditions
- Has a large distance between the properties to be constructed
- Requires minimal disturbance of the existing area for unique reasons

Pressure sewerage systems might also be installed in areas where inflow and infiltration are causing problems for conventional sewerage systems.

Have the Units Been Installed Elsewhere?

There are more than 1 million of these systems installed internationally with the technology having been in the USA for around 30 years and in Europe for around 20 years.

It was anticipated that by the end of 2010 there would have been around 20,000 of these systems installed in Australia.

Who Pays for the Power?

The pumping unit is normally wired into the household power board and paid for by the resident as part of their normal household electricity bill.

If the power were to be paid for by the authority it would require a separate meter that would need to be read separately with additional administrative charges. The costs would then be charged back to the resident or home owner as part of the sewerage rates but at a higher cost.

Typically, this power bill will be in the order of $25 - $30 per annum to the average household.

What Happens if the Unit Breaks Down or There is a Power Failure?

If the pumping unit fails, the alarm will normally sound. This can be turned off via a switch located on the control panel. An alarm light will remain until the unit is repaired.

One of the benefits of the pressure sewerage system is that any system blockage will not back up onto the residential property. The only person who can contribute to any overflow are the property residents themselves. Even so, when the alarm sounds there will still be a considerable amount of storage such that the resident can still use the unit although with some limitations. The resident on each property will receive a Home Owner's Manual to guide them in what to do in relation to their pressure sewerage unit.

International referees have indicated that the units will require some form of maintenance once every eight to ten years, on average. The normal method of repair is for Council to replace the unit with a spare pump and take the defective unit back to the workshop for repairs. This process generally takes less than one hour from when the maintenance crew arrives on site.

All units will be designed to have sufficient emergency storage to easily deal with what would be expected from power outages.

Are there any Special Precautions or Restrictions with these Systems?

Essentially the answer is no. They have none of the septic tank type limitations on lifestyle. There are some materials such as petroleum products, rags etc. that should not be put down the system but these should not be discharged into a conventional sewerage system either.

The home owner is normally required to enter into a maintenance agreement with Council and this will detail what can and cannot be safely discharged into the pressure sewerage system.

The pressure units also have some increased flexibility on the property such as the ability to relocate the delivery line to accommodate swimming pools, large spas or house extensions. These are explored on a case by case basis.

Where Do I Go To Get More Information?

If you require further information this can be obtained from:

- Details in the formal Customer Service Agreement.
- The Home Owner Manual provided to all properties with a pressure sewerage system.
- Richmond Valley Council (telephone 6660 0300).
- Richmond Valley Council's web site, which contains information on pressure sewerage systems (www.richmondvalley.nsw.gov.au).