



# **THE ROCK**

**PRESSURE SEWERAGE SERVICE**

**HOUSEHOLD OWNER'S MANUAL**

## **Important Information**

1. Keep this manual in a safe place and provide it to future owners and tenants.
2. Don't put anything into the sewer that you wouldn't put into a septic tank. See page 1.
3. If the alarm activates, silence the audible alarm and check that the alarm light goes out after a few minutes (1 hour after a power failure). Ring Council if the alarm doesn't turn off. See page 2.
4. If you are going on holidays, flush the tank using procedure on page 3.
5. See the back page for emergency information.

## **Welcome to Your Pressure Sewerage Service**

Lockhart Shire Council would like to welcome you to pressure sewerage services. This system uses a small grinder pump on your property to pump wastewater under pressure through a street reticulation system, for treatment and reclaimed water management. This system was selected to serve areas where conventional sewer is not viable, and there have been problems operating on-site wastewater treatment systems.

While the operation of these systems needs virtually no special attention there are some things that the users of the systems should be aware of. This manual tells you about these things.

### **What Can I use the Sewer for?**

Compared to septic systems, pressure sewerage systems are quite tolerant of what is discharged into them. Hard solids can cause excessive wear to the pump, and in some rare cases can lead to blockage.

Here are some examples of things that must **NOT** be discharged into your pressure sewer system:

- Rainwater, roof water, stormwater
- Sanitary napkins, tampons
- Glass
- Kitty litter
- Flushable toilet wipes
- Metal
- Explosive substances
- Plastic objects
- Seafood shells
- Flammable liquids
- Aquarium gravel
- Cooking oils and fats
- Lubricating oils and greases
- Nappies, socks, rags, cloths
- Petrol, diesel, or kerosene
- Strong chemicals

If these types of materials are discovered in the pump well, the property owner will be liable for the cost of any repairs that are required.

## **If the Alarm Sounds**

The pump in pressure sewerage system turns "on" and "off" depending on the water level in the tank.

If the water level in the tank gets too high, an alarm in the control panel is activated.

There can be a few reasons why the alarm goes off:

- The pump has broken down and isn't pumping;
- There has been a power failure and the water level has risen higher than the alarm level;
- Water is entering the tank faster than it can be pumped out (e.g. draining a spa without a balance tank)

## **How to Silence the Audible Alarm**

If the audible alarm sounds, turn it off by pressing the button on the lower left side of the control box. The audible alarm will turn off automatically after 10 minutes. The red alarm light on top of the control box will stay on until the water level in the tank drops below the alarm level.

## **If the Alarm Doesn't Clear**

When the alarm sounds, think if there is an explainable cause for the alarm activating. If there has been a power failure or you have disposed of a large volume of water into your house sewer, the pump should recover and the alarm light will turn off.

If the alarm light does not turn off, something may be wrong with the pump. Contact Council on (02) 69205305 (office hours and after hours) to arrange attendance by Lockhart Shire Sewer personnel.

Please limit your usage of sewer (i.e. no clothes washing or automatic dishwasher, and have short showers) until Council has returned the service. If the pump needs repairing it will be replaced by a spare pump to immediately return the service.

## **If There Has Been a Power Failure**

During power failures, the pump will not operate. When the power is restored, the alarm may sound.

After power failures, it may take up to 1 hour for alarms to turn off. This is because when many pumps attempt to use the system at once, some pumps will automatically cut out and try again a few minutes later.

If the alarm light does not turn off, something may be wrong with the pump. Contact Council on (02) 69205305 (office hours and after hours) to arrange attendance by Lockhart Shire Sewer personnel.

Please limit your usage of sewer (i.e. no clothes washing or automatic dishwasher, and have short showers) until Council has returned the service. If the pump needs repairing it will be replaced by a spare pump to immediately return the service.

If the power failure is for an unusually long period of time (more than a day), Council will make temporary arrangements to maintain the service.

## **Maintenance**

### **Owner's Responsibilities**

As the owner, you are responsible for:

- Maintaining the house's sewer drainage to the standards in the NSW Plumbing Code;
- Making sure that no damage occurs to the connection pipe between the pump well and the boundary kit, and the boundary kit itself (Council will repair at your cost)
- Making sure the system isn't abused by discharging substances that damage the pump or are unsuitable for sewer;
- Keeping the vent on the top of the pump well clear;
- Ensuring that the pump well is accessible in case future maintenance is needed;
- Ensuring that no one attempts to access the pump well or control unit, unless authorised by Council;
- Providing electricity to operate the "on-site" pump.

### **Council's Maintenance Contract**

Part of your annual sewerage charges is dedicated towards the maintenance of the pump on your property. Council will cover the cost of any pump maintenance required, and will replace the pump if it fails. This includes any maintenance of the pumping unit, vent, control unit, associated cabling between the control unit and the pump, the connection pipe and boundary box.

This maintenance arrangement is dependent on the system being used appropriately, as outlined in this manual. Any evidence of abuse or damage (either deliberate or through negligence) will result in the full cost of repairs being borne by the property owner.

**Please note that any unauthorised access to the pump well or control box will void the pump warranty, and will mean that breakdowns will not be covered under Council's maintenance contract.**

### **Going on Holidays**

If no one will be in the house for a few days, it is a good idea to flush out the pump well. This will prevent odours forming and reduce the risk of blockages. If Council needs to flush your system due to neighbour complaints, this will be at your cost.

Half fill your laundry tub with water just before leaving. You could also run a few taps fully open, and go to the pump well. Wait until the pump starts (a quite humming sound), wait for about 30 seconds and then turn the taps off.

**Do not turn off the power to the pumping unit while you are on holidays.** If the power is off, there is a risk that dripping taps etc. could fill the tank and cause an overflow. The pumping unit will be wired separately to the rest of your house.

## **House Extensions, Pools and Renovations**

### **Extensions**

Your pressure sewerage service is designed to have enough capacity to manage the majority of house extensions. Any house extension would connect you house sewer drainage, as is the case for normal sewerage systems.

Similarly, "Temporary Aged and Disabled Units" can usually be accommodated by connection into your house sewer drainage.

## **Relocating the Connection Pipe**

Unlike normal sewerage systems, it is quite easy to relocate the pipeline connecting your pump well to the boundary box. The re-laying of the line would need to be done by Council at the owner's cost. You must not build over a pressure service line.

The connection pipe has been installed with a tracer wire and marking tape. This tracing wire can be used to locate the pipeline with special locating equipment. Additionally, a piece of metal plate has been installed on the bends in the line to allow location with a metal detector.

## **The Pump Well and Control Box**

The pump well and control box must not, as a result of new building work, be located in an enclosed space (e.g. shed, courtyard or pergola). The control box must remain in a place that is highly visible and where residents and neighbours could hear the alarm. If necessary, the pump well and control box must be relocated at the owner's cost.

## **Pools and Spas**

Many pumps attached to pools and spas discharge water at a faster rate than the pressure sewerage system is designed to accept. This results in nuisance alarms and potentially could cause the system to overflow.

You will need to contact Council to determine what measures are needed to appropriately manage these discharges. Pool and spa pumps can usually discharge by connecting the discharge into a balancing tank, and discharging the balancing tank into a sewer gully at a controlled rate.

## **In Case of an Emergency Alarms**

- Silence the audible alarm by pressing the button at the bottom of the control box;
- Wait a few minutes to see if the alarm clears (1 hour in the case of power failure).
- If the alarm doesn't clear, ring Council on (02) 69205305 (office hours and after hours) to arrange a service visit.

## **Power Cuts**

- In extended power cuts, minimise water usage (short showers, bucket water out of baths etc.).
- Once power is restored, clear the audible alarm if it activates, and make sure the alarm light goes out within 1 hour.
- In major events (power outages resulting from bush fires) a generator connection point has been included in the control box. Council will provide a pump-out using portable generators to maintain a minimal level of service to prevent overflows.

## **Floods**

- Your control unit is located above the flood level, which should allow your pump to run provided the pump well isn't submerged.
- Council's staff may disable your pump if your house sewer drainage is submerged.
- Council will re-activate the pump once the flood has receded far enough.

## **Burst Connection Pipe**

- If the connection pipe is cut or bursts for some other reason, turn off your pump at your electrical switchboard.
- Ring Council on (02) 69205305 ((office hours and after hours) to arrange repair at your cost.

## **Burst Pressure Mains**

Ring Council on (02) 69205305 (office hours and after hours).

## **How the System Works**

You don't need to understand how the system works to operate it effectively. We have provided this information for those interested in understanding how the system works.

**Please note that any unauthorised access to the pump well or control box will void the pump warranty, and will mean that breakdowns will not be covered under Council's maintenance contract.**

Pressure sewerage systems differ from conventional systems in that they are not dependent on gravity. A small pump is installed on the property to pump the household sewerage into a small Council reticulation main in the street. Pressure systems are normally used where normal systems, which rely on gravity, are too expensive, will lead to either environmental constraints, and/or cause too much disturbance and inconvenience to existing residents.

## **The Pump Well and Pump**

Your house sewer drainage discharges into a pump well. The pump well fills with wastewater up to a certain depth. At this point the pump automatically turns on and pumps until the water level falls to defined depth, and the pump then switches off. The pump will typically run for one to two minutes in the cycle, and the pump will operate several times each day.

Sometimes the unit will turn on, but will cut out almost immediately. This happens when the pump detects that there is too much pressure in the system because other pumping units are running already. The pump will try again in a few minutes, and will keep trying until the pressure drops to a level where it can run.

If the pump fails to operate, the depth of wastewater will continue to increase until it reaches an 'alarm' depth where both an audible and visual alarm will automatically be operated. This level is at about the top of the pump.

Alarms also may be activated as a result of power returning after a power failure or due to sudden loading such as swimming pool backwashes or from large spas.

In all cases the alarm will automatically shut off when the storage level drops below the alarm level. The alarm is in the small box that has been attached to the house and will be locked at all times.

The storage vessel has a capacity in excess of 660 litres and when combined with the household drains should give in excess of 750 litres of total storage (around one day's discharge for a normal household). With reasonable care, this means that no overflow should occur. The majority of this storage capacity is above the alarm level activation point.

If repairs are required to the reticulation, household pipelines or even to the pump itself then there is enough storage on the property to allow this to occur without fear of overflows on the residential property. Residents however should minimise the production of wastewater until these repairs are conducted.

## The Boundary Box

The 'boundary box' is at the back boundary of your property (where typically sewer mains are located in Lockhart Shire) and marks out the boundary between your house service and Council's pressure sewer main network. The boundary box is in a black case marked 'Pressure Sewer. Do Not Bury'.

The boundary box has three main parts:

- An isolation valve, used to isolate your property service from the mains system. This is used to prevent your sewer pump from discharging into the sewer main if there is a problem in the system (e.g. a burst main).
- A one-way valve, used to prevent wastewater from the Council's pressure main from discharging back into your house pressure line.
- An inspection/flushing point, used to inspect and clear the system if necessary.

## The Council's Pressure Main

The Council pressure main is made using the same materials as the house pressure line. The mains systems need to be carefully designed to make sure that the wastewater doesn't cause blockages, and the water doesn't become too septic in the lines. Because of this there is less capability for subdivisions than for a normal sewerage system.

## Glossary

<b>Balancing tank</b>	A tank used to store discharges from pool pumps etc. and release to the house reticulation at a controlled rate
<b>Boundary Box</b>	A combination ball valve, one-way valve and inspection point located near the property boundary. Marked "Pressure Sewer. Do Not Bury". Denotes the junction between the house sewerage system and the Council sewer mains.
<b>Control box</b>	The box used to control the operation of the pressure pump. Also includes an alarm light, alarm siren, a silencing switch and a generator point.
<b>Connection Drain</b>	The gravity drained part of the house sewer service lines, upstream of the pump well.
<b>Owner</b>	The legal owner of the property.
<b>Connection Pipe</b>	The part of the house service line connecting the pump well to the boundary box.
<b>Pressure main</b>	Any lines downstream of the boundary kit
<b>Pump well</b>	The fibreglass well that houses the pump and stores wastewater for pumping.