



# **Pressure Sewer Home Owners / Home Occupiers Manual**

**Council's Emergency Contact No: 6626 6954**

**It is strongly recommended that you read this manual and thereafter keep it in a safe, but readily accessible place. You should re-familiarise yourself with it each year. If the property is rented then the manual should be provided to the tenant along with instructions for them to familiarise themselves with the document. Additional copies of the document are available from Council.**

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## 1.0 Objective

The objective of this manual is to provide information regarding the use of pressure sewer systems within the Ballina Shire. The manual is provided to owners, (or tenants or other property occupiers), of properties which are connected to sewer using pressure sewer systems.

If an onsite pressure sewer units breaks down, an alarm will sound to warn the resident that the system is not working. When this occurs the resident should follow the steps set out in Section 4 of this manual as these will guide the resident through what needs to be done. However anyone wanting to gain more information on these pressure sewer systems, may obtain this information from Council's web site [www.ballinacouncil.com.au](http://www.ballinacouncil.com.au) or in a more detailed home owner's brochure available from Council.

## 2.0 What is Pressure Sewer?

Pressure Sewer refers to a system of providing sewerage services to developed areas, which involves the installation of separate, dedicated pumping units on each property or dwelling. These pump stations are interconnected by a network of small diameter, pressurised pipelines which transfer sewage to a nominated discharge point, usually to a point in Council's existing sewerage system.

Pressure Sewer systems provide an alternative to conventional gravity sewer systems and are used where they offer a better solution than conventional sewerage for a particular location. Pressure sewer technology has been in use for over 30 years. The diagram below illustrates a typical pressure sewer installation within a residential property.

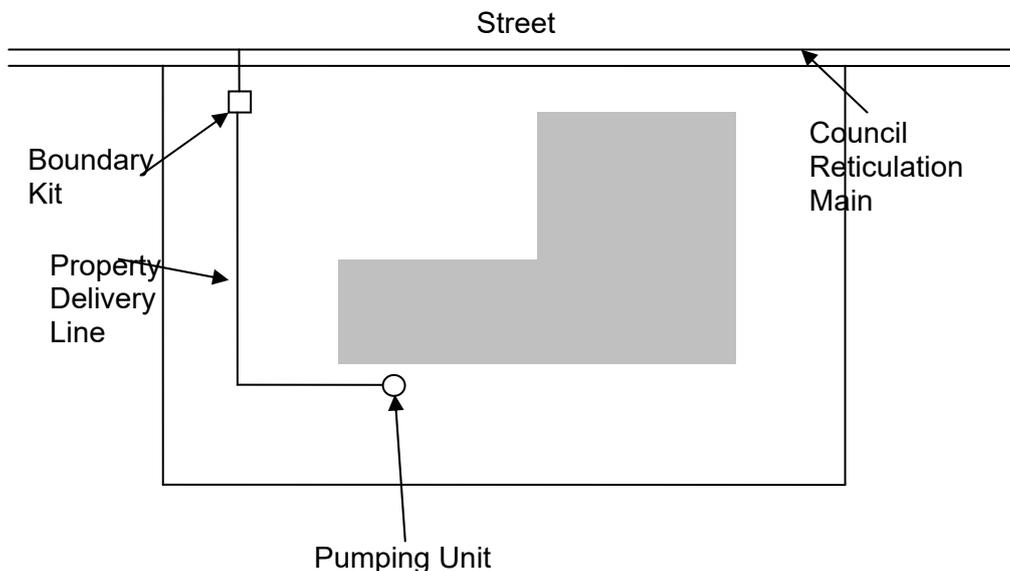


Figure 1: Typical Pressure Sewer Installation

The key components of a pressure sewer installation are:

- An underground pump well, usually made from fibreglass or plastic, which receives flows from the gravity plumbing located within the property.
- A submersible pump, located in the pump well, which pumps sewage received in the pump well to a pressurised sewer pipeline.

- A pressurised sewer delivery pipeline running through the property, which transfers pumped sewage from the pump well to the common collection system, generally located in the road reserve at the front of the property.
- A boundary kit, located on the pressurised sewer pipeline serving each property. The boundary kit is generally located just within the front boundary of the property and contains a series of valves that allow the property to be isolated. Only authorised Council staff should operate any of these valves and like the water meter these remain Council property.
- A control/ alarm panel cabinet which is generally located on the wall of the dwelling close to the pump station.

### **3.0 Who is Responsible for the Operation & Maintenance of Pressure Sewer Systems?**

#### **3.1 *Ballina Shire Council (Council) is responsible for the operation and maintenance of:***

- The sewage pumping units on each property including all connections and fittings. Council staff will respond to your requests for assistance and will carry with them photographic identification. If persons come to your property without warning or without this photographic identification then do not grant them access and contact the police and Ballina Shire Council.
- All pressurised common collection pipelines and associated fittings, including boundary kits and boundary kit boxes.

Should any of these items require replacement, Council shall be responsible for the replacement of these items.

#### **3.2 *Property Owners***

Specific actions that are required of the property owner are as set out below:

- The maintenance of the electrical connection to the electrical panel of the sewage pumping unit on the property.
- The connection of internal plumbing to the sewage pumping unit.
- Maintenance of gravity plumbing on the property, up to the inlet of the sewage pumping unit.
- The payment of the annual sewer charges.
- Providing the tenant on the Property with a copy of this home owner's manual. Spare copies can be obtained from Council
- Do not attempt to repair the pumping unit yourself. Council is maintaining your unit on your behalf (as part of your sewer rates) and your actions may void any warranties attached to the pumping unit.
- Do not go into the pumping unit - do not even take the lid off of it. The inside of the pumping unit represents a confined space working environment that could be dangerous, without the appropriate training and equipment.
- Do not connect your roof or yard drains into to the pressure sewer system, as the system is not designed to accommodate these.

### **3.3 *Those Resident on the Property***

Recognising that the property owner will not always be the property resident this section identifies what is expected of the resident in the operation of the pumping unit. (This is unless otherwise determined by the terms of the lease agreement between the owner and tenant).

- The provision of electrical power to the pump station, including payment of associated power bills.
- Providing Council access to the property, for the purpose of maintenance or replacement of pressure sewer infrastructure located on the property.
- Notifying Council immediately if any alarms are generated or of any other problems with the performance of the pressure sewer system.
- Ensuring none of the materials identified in Section 7 of this manual is discharged to the sewer.
- Do not attempt to repair the pumping unit yourself. Council is maintaining the pumping unit
- Do not go into the pumping unit - do not even take the lid off of it. The inside of the pumping unit represents a confined space working environment that could be dangerous, without the appropriate training and equipment.
- When going on holidays, flush the pressure sewer system.
- If evacuating in an emergency, turn off all power, including the power to the pumping unit. Otherwise do not turn these off when turning off the power to the rest of the house.
- Make sure the venting into the pumping unit remains clear at all times, so that it can function properly
- Do not touch the valves in the Boundary Kit.
- Familiarise yourself with the location of the property delivery line, and avoid damage to the pipeline and pumping station.
- If in doubt contact Council before acting in relation to the pressure sewer system.
- The pumping unit operates automatically, turning itself off and on based upon the level of the sewerage in the storage vessel. The unit will also cater for extras in the home as a result of visitors coming to stay during the holiday periods. You as the property resident need do nothing in relation to the normal operation of the pumping unit other than what is listed above.

### **3.4 *All Parties***

Some of the key maintenance aspects that all parties need to be aware of are:

- The sounding of this alarm does not mean that you can no longer use your sewer system. The pumping unit still has around 400 or more litres of storage above where the alarm will sound. Use of this emergency storage is one of the main advantages to pressure sewer systems, however some precautions must be adopted using this emergency storage (refer Section 4.4).
- There is no specific cost for normal repairs carried out by the Council, as these are covered in your sewer rates. However Council may charge for damage done to the pipeline or damage to the pumping unit from abnormal behaviour.

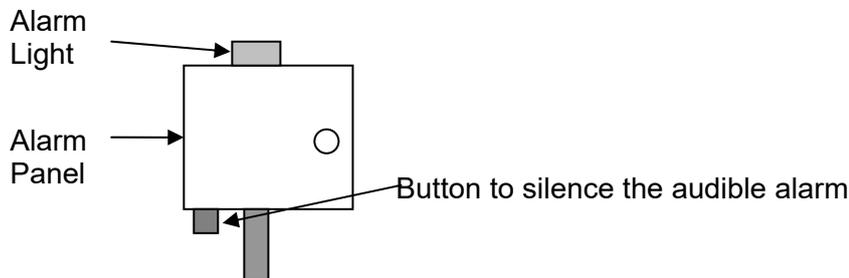
- You do not have to be there for repairs to be carried out on the unit if you have followed the rules in respect to Council access. The exception will be where there is a secured yard involved.
- When installing spas, swimming pools or other water using appliances go to the Council web site for details on what will be required in these instances.

#### 4.0 What to Do if an Alarm Sounds

When an alarm sounds the resident should respond by following the simple steps set out below:

##### 4.1 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, refer to figure 4.1. This panel will be mounted on the wall of the house, shed, and garage or on a stand alone post, if located away from the home.



**Figure 4.1**  
**Location of Audible Alarm silencing switch**

The alarm light cannot be turned off by the resident. It will turn itself off when the repairs are completed and the pumping unit is operating normally.

##### 4.2 Step 2 Determine if there has been a Power Blackout

If the alarm sounds immediately after a power failure (on a town/suburb wide basis), wait for one hour before calling Council. The alarm could in these instances, sound when the power is restored simply due to the stored volume that has occurred during the power outage. There could be a number of units trying to pump, and the system will limit the number of units that can pump at the same time. The system will therefore take a short time to clear overall. Just silence the audible component in the interim as per step 1

##### 4.3 Step 3 Report the Alarm to Council

You should contact Council at the numbers listed on the cover of this manual or on the electrical panel. However before you report the alarm you should investigate the following:

- Is there any sewage coming from the Overflow Relief Gully.
- Are there any discharges coming from the ground or are there any wet spots?
- Are there any perceptible odour problems?
- Has there been a power failure (as per step 2.2) and have you waited the suggested 1 hour before calling.
- Is the pump making any unusual noises?

The operator will ask you these questions, as well as the nearest cross street for reference purposes.

#### **4.4 Step 4 Minimise Wastewater Generation until the Pumping Unit is Repaired**

You can continue to use your toilets if there are no overflows but 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 in the following manner:

- Not turning on any clothes washing machines or automatic dishwashers, whilst the alarm is active.
- Keep showers brief.
- 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.
- Switch off any drainage (automated or not) from swimming pools, spa's, etc until after the unit has been repaired.
- Practice good water savings techniques such as not leaving taps running etc.

#### **4.5 Step 5 Ensure the Council Officers have Access to the Pumping Unit**

Council's repair officer/s might need to carry the pump on a trolley to their truck and therefore a clear pathway will be required for them. Therefore the following actions should be taken:

- Ensure that any property gates are unlocked.
- Ensure that the driveway or pathway leading to these gates is clear to allow access.
- Lock up any pets that might escape the property.
- Ensure the lid of the pumping station is clear of any mulch, pot plants etc and clearly visible for the repair officers.
- Ensure obstacles in the yard that might prohibit the trolley from gaining access to the pumping unit are cleared away and have a preferred pathway to the pumping unit.
- Ensure someone is present if it is a "secured" property

#### **4.6 Step 6 Confirm the Pumping Unit is Repaired before Reverting to Normal Operation**

Council personnel will inform the resident before leaving the site that all repairs have been carried out. If you have been away from the property when the repairs have been going on you should check that the alarm light is no longer illuminated.

### **5.0 What To Do if the Discharge Pipeline Breaks**

The pipeline from the pumping unit to Council's sewer reticulation mains is:

- Polyethylene Class 16 Pipe (flexible)
- Black in Colour (the pipe should however have a cream coloured stripe)
- Buried at a depth of 450mm

- Under Pressure

Being a sealed pipe system there are no (or few) joints that should allow tree root ingress, nor should the pipeline normally break as a result of ground movement. The most likely cause of pipe breaks will be others digging near the pipeline and accidentally striking the main. Therefore always ensure you are aware of where the pipe is before commencing any digging, and the unlikely event that this line should be broken then you should take the following steps.

**Step 1**

Try and determine if the broken pipe is a water main or a sewer main. Guides as to whether the broken pipe is a sewer main are:

- Smell
- Colour of the Pipe
- Location of the main (Is it where you expected the sewer main to be)
- Pulsing of flows, as the sewage is pumped generally in short bursts. A water main will flow fairly constantly until isolated.
- If the above are inconclusive, turn off the household water main or the sewer pump and see if this makes a difference.

**Step 2**

If you believe it is a broken sewer pipeline, turn off the power to the pumps, in the household switchboard. These pumps have a separate circuit and will be clearly labelled. Turning these off should not impact the remainder of the house.

**Step 3**

Report the broken main to Council and tell them you have switched off the pumps.

**Step 4**

Minimise the amount wastewater discharged into the sewer system, until repairs are carried out.

**Step 5**

Recommence normal operation, once Council has concluded their repairs to the main and the alarm light has gone out. It is probably that the levels will have reached alarm levels before the repairs are affected.

## 6.0 Council Access to the On Property System

Some key aspects in respect to access that need to be noted are.

1. The pumping unit may be covered by tanbark or pot plants that can be moved by the resident when repairs are required. The unit is not to be buried, nor paved over, nor concreted over, nor permanently covered in any other manner.
2. When the Council repair agent comes to repair the unit it must be uncovered and accessible to these repair officers. If Council officers are unable to locate the unit because it has been covered, Council may:

- Refuse to carry out repairs until the owner/ resident exposes the unit, and it may charge the resident a service call, even if the unit is not repaired.
  - Pass on to the resident any additional costs for it to locate and uncover the pumping unit
3. If pets are not secured, repair officers may refuse to enter the property and carry out any repair works, where they cannot contact the resident to secure the pets. In these instances Council will not be held liable for any repairs not being carried out and it may elect to send a service call invoice to the resident.
  4. Access from any gates to the pumping unit for a trolley device will be required. The officer will need to place a lifting frame above the pumping station to lift out the pump and then carry the pumps away to their vehicle, and thus they need a path for the trolley. Any resident that closes off this access way will be responsible for any additional costs incurred particularly if additional equipment, such as cranes etc are required.
  5. Any residents with “secured” properties must be present to allow the Council repair officers, access to the yard at the agreed time, based upon arrangements made when the resident calls to notify Council of the system failure.

## **7.0 What Should not be Discharged into the Sewer System**

The following substances should not be discharged into your pressure sewer system, to avoid blockages or damage to the pump and/or grinder unit:

- Glass
- Metal
- Gravel/Sand etc
- Seafood Shells
- Goldfish Stone (Aquarium Gravel)
- Nappies, socks, rags or clothes
- Plastic Objects
- Sanitary Napkins or Tampons
- Kitty Litter
- Explosives
- Flammable Materials
- Lubricating Oil and/or Grease
- Strong Chemicals
- Gasoline
- Diesoline
- Wet Wipes

It should be noted that none of these substances should be discharged into a conventional sewer system either.

## **8.0 Going on Holidays**

Where the residents are going on holidays, potentially even extended weekends away (and there is no one at home) then the pumping unit needs to be flushed out before going away. This is to avoid any potential for odour generation and it is suggested:

- i) You run clean water into the pumping unit until the pump activates and runs for about 30seconds. Filling the bathtub and discharging it will achieve such a flush.
  
- ii) You do not turn off the power to the pumping unit if you are turning off the power to the rest of the house. This is in case there are any leaking taps which might fill the storage vessel. The pumps will be on a separate circuit and should be clearly labelled.

Where residents fail to clear their systems, before going on holidays and Council has to carry out a flush of the units in response to complaints from surrounding neighbours, it may choose to invoice the resident for the costs to carry out that work.

## **9.0 Council Not Liable**

Council will not be held liable for any overflows that may occur on the property where the resident has failed to notify Council of the service failure. Residents will be liable for any flows off their property that might happen and may be prosecuted for environmental breeches if they have failed to notify Council. A record of all notifications will be maintained by Council.