

# PRESSURE SEWER MANUAL

FOR PROPERTY  
OWNERS / OCCUPIERS

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**ballina**  water

**It is strongly recommended that you read this manual and keep it in a safe, 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 Ballina Shire Council.**

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# 1. INTRODUCTION

This manual has been prepared for owners and tenants (where applicable) of properties which are connected to sewer using pressure sewer systems. It provides important information regarding the use of your onsite pump station.

If your pump station breaks down, an alarm will sound to warn you that the system is not working.

When this occurs you should follow the steps set out in Section 6 of this manual as these will guide you through the actions you need to take.



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## 2. WHAT IS PRESSURE SEWER?

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

Pressure Sewer systems provide an alternative to conventional gravity sewer systems and are used when 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.

A property pressure sewer installation, called the on property works, is made up of several key components:

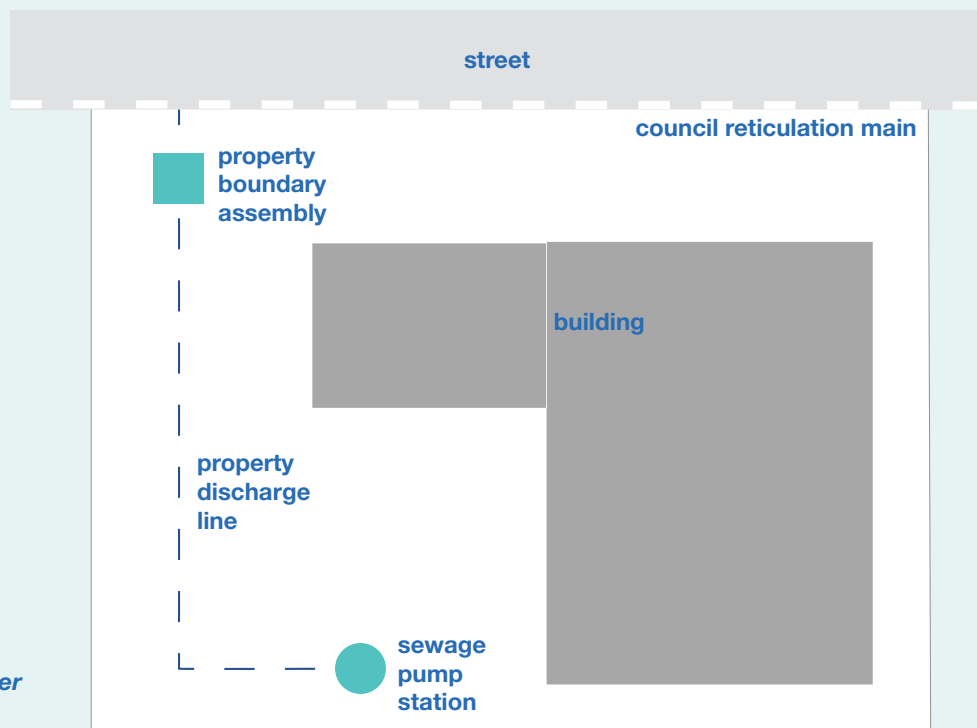
The **pump station** which consists of:

- An underground pump well, usually made from fibreglass or plastic, which receives flows from the plumbing located within the property.

- A submersible pump, located in the pump well, which pumps sewage received in the pump well to the property discharge line.
- An electrical control and alarm panel cabinet which is generally located on the wall of the dwelling close to the pump station.

The **property discharge line** which is a pressurised sewer delivery pipeline that runs through the property and transfers pumped sewage from the pump well to the common collection system via the property boundary assembly.

The **property boundary assembly**, located on the pressurised sewer pipeline serving each property. The property boundary assembly 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 can operate these valves and, like your water meter, these remain the property of Council.



**Figure 1:**  
*Typical Pressure Sewer Installation*

# 3.

## RESPONSIBILITY FOR THE OPERATION AND MAINTENANCE OF PRESSURE SEWER SYSTEMS

The operation and maintenance of pressure sewer infrastructure is a joint responsibility shared between Council, individual property owners and residents/tenants where these differ from the property owners.

### Council's Responsibilities

Council is responsible for the operation and maintenance of the:

- Pump station on the property including all connections and fittings.
- Property discharge line and associated fittings.
- Property boundary assembly and assembly box.
- All pressurised common collection pipelines (reticulation) and associated fittings.

Council is also responsible for the replacement of any of these items, should this be required.

Council staff will respond to any request 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.

### The Property Owner's Responsibilities

There are specific actions required of the property owner:

- Maintenance of the electrical connection to the electrical panel of the pump station on the property.
- Connection of internal sanitary plumbing to the pump well. Do not connect your roof or yard stormwater drains into to the pressure sewer system, as the system is not designed to accommodate these.
- Maintenance of the internal plumbing on the property up to the inlet of the pump well.
- The payment of the annual sewer charges.

- Providing tenants with a copy of this property owner manual (where applicable). Spare copies can be obtained from Council.

### Responsibilities of Property Residents

The pump station operates automatically, turning itself off and on based upon the level of the sewerage in the pump well. The pump station will also cater for extras in the home as a result of visitors coming to stay during the holiday periods.

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 pressure sewer system (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 electricity costs.
- 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 (refer Section 4).
- Ensuring none of the materials identified in Section 4 are discharged to the sewer.
- When going on holidays, flush the pressure sewer system (refer Section 5).
- 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.
- Maintain clear access to the pump station, property discharge line and property boundary assembly (refer Section 8)
- Make sure the venting into the pump well

remains clear at all times, so that it can function properly.

- Familiarise yourself with the location of the property discharge line, and avoid damage to the pipeline and pump station.
- **Do not** attempt to repair any part of the pressure sewer system yourself. Council maintains the pressure sewer system on your behalf and your actions may void any warranties attached to the system.
- **Do not** go into the pump well - do not even take the lid off of it. The inside of the pump well is a confined space working environment that could be dangerous without the appropriate training and equipment.
- **Do not** touch the valves in the property boundary assembly box.
- If in doubt contact Council before acting in relation to the pressure sewer system.

## All Parties

There is no specific charge for normal repairs carried out by the Council as these are funded through annual sewerage charges. However in cases where the property owner and/or resident has failed to undertake requirements as set out in this manual, or where the pressure sewer system has been deliberately damaged, Council may seek costs from the property owner and this may be done before effecting repairs.

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, provisions need to be made to prevent overflows from sudden high discharges. Please contact Council for details on what will be required in these instances.

## 4. WHAT SHOULD NOT BE DISCHARGED INTO THE SEWER SYSTEM?

To avoid blockages or damage to the pump the following substances should not be discharged into your pressure sewer system:

- Wet wipes including those labelled 'flushable' or 'degradable'
- Oil and grease (cooking, lubricating or otherwise)
- 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
- Strong chemicals
- Petrol or Diesel

NOTE: none of the above substances should be discharged into a conventional sewer system either.

## 5. GOING ON HOLIDAYS

Where no one will be present at the property for more than four days, the pump well must be flushed out before going away to avoid any potential for odour generation.

To do this, run clean water into your home sanitary plumbing (e.g. a bath or sink) until the pump activates and runs for about 30 seconds. Filling the bathtub and discharging it will achieve such a flush.

Do not turn off the power to the pump station 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 pump station will be on a separate circuit and should be clearly labelled.

Where a resident fails to flush their pump well before going on holidays and Council has to clear the system in response to complaints from surrounding neighbours, it may charge the resident for the costs to carry out that work.

## 6. WHAT TO DO IF AN ALARM SOUNDS

The sounding of the pump station alarm does not mean that you can no longer use your sewer system. The pump station still has around 400 or more litres of storage when the alarm is triggered. Use of this emergency storage is one of the advantages of pressure sewer systems, however some precautions must be adopted to minimise wastewater and/or prevent overflows when using this emergency storage.

### 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 is usually mounted on the wall of the house or garage in the vicinity of the pump well but may be mounted on a stand-alone post if located away from the home.

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

### Step 2

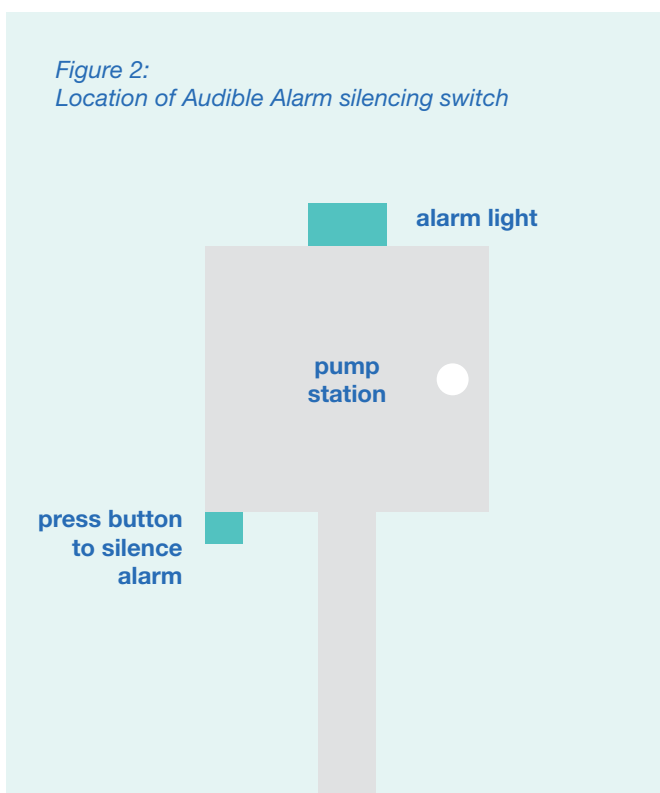
#### HAS THERE BEEN A POWER BLACKOUT?

If the alarm sounds immediately after power is restored following a general power failure (on a street/town-wide basis), wait for one hour to see if the alarm clears before calling Council.

In these instances the alarm may 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.

Silence the audible component in the interim as per step 1 if desired. If the alarm does not stop after one hour, proceed to Step 3.

Figure 2:  
Location of Audible Alarm silencing switch





### 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) and have you waited the suggested one 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.

### Step 4

#### MINIMISE WASTEWATER UNTIL THE PUMP STATION IS REPAIRED

You can continue to use your toilets if there are no overflows but in the period whilst the alarm is active you should try and minimise the overall volumes of wastewater being generated. This can be done in the following manner:

- Don't use washing machines or dishwashers.
- Keep showers brief.
- If using the bath, leave the plug in or bucket out the water onto the lawn.
- Switch off any drainage (automated or not) from swimming pools, spas or other water using appliances.
- Practice good water savings techniques such as

not leaving taps running etc.

### Step 5

#### ENSURE COUNCIL OFFICERS HAVE ACCESS TO THE PUMP STATION

Council's repair officer/s might need to carry the pump on a trolley to their vehicle and therefore a clear pathway will be required for them. 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 pump well is clear of any mulch, pot plants etc. and clearly visible for the Council officer.
- Ensure obstacles in the yard that might prohibit the trolley from gaining access to the pump station are cleared away and have a preferred pathway to the pump well.
- Ensure someone is present if it is a "secured" property.

#### Step 6 CONFIRM THE PUMP STATION 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 were away from the property while the repairs were being made you should check that the alarm light is no longer illuminated.

# 7.

## 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 from digging near the pipeline and accidentally striking the main. Therefore always ensure you are aware of where the pipe is before commencing any digging.

In the event that this line should be broken then you should take the following steps:

### Step 1

#### IDENTIFY THE TYPE OF PIPE

Try and determine if the broken pipe is a water main or a sewer main. Indicators 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, try turning off the household water main and see if this makes a difference.

### Step 2

#### TURN OFF THE POWER TO THE PUMP STATION

If you believe it is a broken sewer pipeline, turn off the power to the pump station, in the household switchboard. The pump station has a separate circuit and will be clearly labelled. Turning this off should not impact the remainder of the house.

### Step 3

#### REPORT THE BREAK TO COUNCIL

Report the broken main to Council and tell them you have turned off the power to the pump station.

### Step 4

#### MINIMISE WASTEWATER GENERATION UNTIL THE PIPE IS REPAIRED

The pump station has spare storage capacity to utilise during an emergency but you should still try and minimise the amount wastewater discharged into the sewer system until repairs are carried out. See Step 4 of Section 6 "What to do if an alarm sounds" for suggestions.

### Step 5

#### CONFIRM THE PUMP STATION IS NO IN ALARM BEFORE REVERTING TO NORMAL OPERATION

Once Council has made the repairs to the pipeline they will turn the power back on to the pump station. It is likely that while the pump station has been off the wastewater in the pump well will have reached a high level and triggered the alarm. This should automatically switch off once the well level has pumped back down. Check that the alarm light is no longer illuminated before reverting to normal operation.

## 8. COUNCIL ACCESS TO THE 'ON PROPERTY WORKS'

It is important that Council has unobstructed access to the pump station, property discharge line and property boundary assembly in order to carry out routine or emergency maintenance when required.

The pump station must not be buried, paved/ concreted over or permanently covered in any other manner. However the pump well may be lightly covered by tanbark or pot plants that can be quickly moved by the resident when repairs are required. When Council comes to repair the pump station the lid to the pump well must be uncovered and accessible. If Council officers are unable to locate the pump well because it has been covered, Council may:

- Refuse to carry out repairs until the owner/ resident uncovers the pump well and charge the resident a service call, even if the pump station is not repaired.
- Pass on to the resident any additional costs Council has incurred to locate and uncover the pump well.

If pets are not secured, Council officers may refuse to enter the property 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 charge the resident a service call.

Clear access from any gates to the pump well will be required. The Council officer will need to place a lifting frame above the pump well to lift out the pump and then wheel the pump away to their vehicle on a trolley. Any resident that closes off this access will be responsible for any additional costs incurred to remove the pump particularly if additional equipment, such as a crane, is required.

Any resident with a 'secured' property must be present to allow the Council officer access to the property at an agreed time, based upon arrangements made when the resident calls to notify Council of the system failure.

## 9. 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 breaches if they have failed to notify Council. A record of all notifications will be maintained by Council..

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