

PRESSURE SEWER SYSTEMS

GUIDE FOR HOME OWNERS AND BUILDERS

VERSION: 1.0





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1 Introduction

Hunter Water supports the servicing of new single lot residential developments with pressure sewer where it is demonstrated to be the best option. The developer is required undertake an investigation of various sewer servicing options and present these to Hunter Water for review. If a Pressure Sewer System (PSS) is selected as the optimal servicing arrangement for a development area, then the developer will arrange for the design and construction of the necessary pressure sewer infrastructure.

This Guideline is provided to assist new property owners, and builders, to connect homes located within subdivisions served by a Pressure Sewer System to the sewer services of Hunter Water. The Guideline also assists homeowners understand their requirements for the ongoing operation and maintenance of the pressure sewerage equipment located on their property.

Please read this Guideline carefully and keep it in a safe place.

1.1 Pressure Sewer System - responsibility and components

The Pressure Sewer system is divided into components owned and operated by Hunter Water and components owned and maintained by the land owner (or occupier).

Hunter Water components include:

1. A common pressure main located in the footpath.
2. A boundary kit located inside the front property boundary.
3. A pump unit consisting of a collection tank and pump located approximately 3m from the council building set back and approximately 1.5m from the property boundary on the low side of the property. Please note the necessary Council building setback varies for various types of subdivisions. For example on larger rural style lots a building set back on 12m may be required and for a conventional residential lot a setback of 3m may be stipulated. Please contact your local Council for specific requirements.
4. A control panel located adjacent the pump unit or alternatively on the wall of the residence. The control panel must be located within 10 metres of the pump unit. If the location on the residence is greater than 10m from the pump unit, then the control panel will be located on a free-standing galvanised post adjacent the pump unit.
5. Connecting pipe work between the pump unit and common pressure main in the footpath.

Hunter Water is responsible for all future maintenance of the equipment noted in points 1 – 5 below. However, the property owner must ensure this equipment is not damaged through negligent activity or landscaping works that take place on the property.

You are responsible for all future maintenance of the system components in points 1 – 2 below, as well as paying electricity usage charges: -

1. The electrical supply from the residential switchboard to the control panel.
2. The connecting pipework between the residence and the pump unit.

Please note the power costs for the pump are payable by the land owner (or occupier). The plan attached to this Guideline shows the various components and their position on the property relative to each other.

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2. Connecting your home to a Pressure Sewer System

2.1 Before you design or build a new home

You must ensure that your new home is properly designed to be serviced by the pressure sewer system by referencing a Property Sewer Service diagram. A copy of the Property Sewer Service diagram can be requested by submitting a Property Information Enquiry form obtained from our website, by making a request at our Head Office front counter, or by sending an email request to enquiries@hunterwater.com.au.

In relation to the pressure sewer on your property, you are responsible for ensuring: -

- The residence is positioned to allow the household plumbing to drain by gravity to the pressure sewer tank.
- Your builder knows and understands that the new home must drain by gravity to the pressure sewer tank.

Property Sewer Service Diagram

To comply with these requirements you need to arrange for a builder/plumber to accurately mark-up the diagram with the following information: -

- The proposed location of the residence and any other structure proposed to connect to sewer.
- The location and levels of the pipework connecting the residence to the tank inlet.
- The proposed location of the control panel including providing a direct measurement from pump unit to the control panel. This must be no greater than 10m, if the panel is to be located on the residence.
- The layout of the electrical cable from the switchboard to the control panel.
- Any known obstructions or constraints to the location of pressure sewer infrastructure on the property (e.g. other services, retaining walls).

The marked-up diagram should then be submitted to Development.Planning@hunterwater.com.au or to our Head Office front counter to be reviewed.

Please note that it is your responsibility to ensure that your Builder/Plumber is aware of the Hunter Water requirements regarding connecting the residence to the tank, pump unit and control panel. In the event that the pressure sewer tank needs to be relocated, and/or replaced, then you will be responsible for the costs of these works.

2.2 Connecting your new home

You need to contact Hunter Water at least 6 weeks before you intend to occupy the residence to allow sufficient time to supply and install the pressure sewer pump and control panel. You are also responsible for arranging: -

- An electrician to connect power from your switchboard to the pressure sewer control panel.
- A plumber to connect your household plumbing to the inlet of the tank.

Step 1: Installation of Power Supply

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You need to ensure that a Licenced electrician connects power from your switchboard to an isolation switch located at the proposed control panel location. Your electrician will need to install a: -

- 40amp C curve Circuit Breaker in your switchboard in accordance with AS3000.
- Minimum 6mm electrical cable located in a uPVC conduit in accordance with AS3000, to a position within 300mm from the agreed location of the control panel.
- IP56 rated isolation switch at the termination of the electrical cable.

Please note, if the control panel is located adjacent the tank, then you, the owner, will need to install a suitable galvanised post adjacent the tank to allow for the isolation switch to be attached in accordance with Hunter Water design requirements.

Step 2: Contact Hunter Water for installation of pump and control panel

When you are preparing to occupy the residence, you will need to contact the Development Planning and Relations Team via email at Development.Planning@hunterwater.com.au or alternatively you may call Hunter Water on 1300 657 657 and ask to speak with an Account Manager from the Development Planning and Relations Team to request the installation of the pump and control panel. It may take up to 6 weeks for Hunter Water to arrange for this, so you will need to ensure you factor this into your expected occupancy date.

Step 3: Connection to sewer

Following the installation of the pump and control panel you will need to arrange for a Licenced Plumber to connect the residence to the tank. Your plumber will need to make a sewer connection application with Hunter Water on your behalf. Your plumber must not connect your residence to the tank until the pumps and control panel have been installed. Similarly you must not occupy your residence until the pressure sewer unit has been commissioned by Hunter Water.

3. Operation and Maintenance

3.1 Emergency information

3.1.1 Contacting Hunter Water

For emergency attendance to your wastewater system, please call Hunter Water on **1300 657 000** (24 hours). Let the operator know you are connected to a pressure sewerage system and have your address ready.

3.1.2 What to do if the alarm sounds

When the alarm sounds it will beep and a red light will come on. If this happens you should:

- Silence the alarm by pressing the “mute” button under the alarm control panel.
- Call Hunter Water on 1300 657 000 to report that the alarm has been activated.

Please note that you cannot turn off the red light. It will turn off when the problem has been fixed and the pump is operating normally.

Do not turn off the electricity supply at your electrical distribution board as this may result in wastewater overflows.

Power supply interruption (blackouts)

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If the alarm sounds immediately after a power supply interruption, silence the alarm, but wait one hour before calling Hunter Water. Storage inside the collection tank can reach the alarm level during power supply interruptions but will return to normal once power is restored. If the red light has turned off after one hour, the system has returned to normal operation. If the red light is still on after one hour, then please call Hunter Water.

When the alarm sounds, or during a power supply interruption, please try to reduce water usage to maximise tank storage time. Suggested water reduction measures include;

- Having brief showers.
- Saving bath water to water the lawn.
- Switching off any drainage (automated or manual) from swimming pools and spas.
- Turning off taps.
- Avoiding using the washing machine unless you can direct the water to a plugged laundry tub (where it can be transferred by bucket onto the garden).
- Avoiding using the dishwasher.

Toilets can still be flushed and normal kitchen activities can continue, however water use should be minimised as much as possible.

If a service interruption exceeds eight hours, then Hunter Water may visit your property to manually pump out wastewater from the pump unit. Please ensure that Hunter Water can obtain access to the pump unit by ensuring any gates on your property are unlocked and animals are secured.

If the alarm turns on and off regularly, then please consider the following:

- do you have an appliance connected to your plumbing that is emptying a large amount of water quickly into the drain?
- is the alarm sounding after rain? This may indicate rainwater is entering your sanitary drainage. Please inform Hunter Water as soon as possible on 1300 657 657.

3.2 Pressure Sewer System operation (an explanation of components)

3.2.1 Customer sanitary drain

Your customer sanitary drain transfers the wastewater from your toilet and other sanitary fittings and drains to the collection tank.

3.2.2 Pressure sewer pump unit

The pressure sewer pump unit comprises a collection tank and pressure pump. The collection tank is buried on your property, but the top protrudes from the surface to allow access for venting and maintenance. The collection tank should be about 150mm out of the ground at all times and must not be buried or covered in any way.

The pressure pump is located within a collection tank. The pump breaks up solids so they can be pumped through the property discharge line to the reticulated pressure sewer system.

3.2.3 Property discharge line

The property discharge line connects the pump unit to the property boundary kit. This line is used to discharge wastewater from the property.

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3.2.4 Property boundary kit

Between our property discharge line and the reticulated pressure sewer system there is a one-way valve and isolation valve. These:

- prevent flows from other properties entering your property
- allow your property to be isolated for repairs
- allow flushing of the system if required.

Under no circumstances should you operate these valves.

Contact Hunter Water on 1300 657 000 to request assistance.

3.2.5 Control panel

The power and control functions for the pump are in a locked panel on the wall of your house, or on a freestanding post near the collection tank. An alarm will sound if there is a problem with the pump unit (refer to section 3.1.2).

Only Hunter Water staff or Hunter Water accredited service providers can service the control panel.

3.3 Special precautions

3.3.1 Going on holidays

Before leaving for a holiday, we suggest that you:

- Partially fill the bathtub with water and then release it, or run your washing machine through a cycle, as this will flush clean water through the system and minimise odour generation.
- Tell your neighbours what to do if the alarm goes off. They can contact Hunter Water in the event of an alarm.
- Not turn off the power to the collection/pump unit. If the power to the unit is turned off, the alarm will not sound to warn the neighbours if any problems occur.

It is highly unlikely that there will be an alarm incident while you are away on holidays, as no wastewater should be entering the pump unit.

3.3.2 Items that should not be put down the sewer

Certain items should not be discharged into the sewer as these can block the property discharge line, damage the pump, endanger our workers and/or cause an overflow to occur. The following items must not be discharged under any circumstances:

- Chemical compounds such as paints (water soluble or oil based), explosives, oils, undiluted household bleaches, cleaning compounds, etc
- Inorganic compounds such as rocks, broken glass, sand, metal, shells, etc.
- House items such as nappies, nappy liners, cotton buds, rags, sanitary pads, pantyhose, clothes, plastic objects, wet wipes, facial cleanser, etc.
- Food items such as milk, food scraps, cooking oil, etc.

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If you are in doubt about what you can put into the wastewater system, please visit hunterwater.com.au

3.4 Repairs

Hunter Water will maintain 'Hunter Water owned' pressure sewerage equipment on your property, as shown Appendix A. The Hunter Water Customer Contract and the Pressure Sewerage System Agreement between the householder and Hunter Water outline your rights to ongoing maintenance and repairs of the pressure sewerage equipment on your property.

We are not responsible for maintenance or repairs to the customer's sanitary drains to the collection tank, or the household electrical cable between your electrical distribution box and the control panel.

3.1 Warranties/repair costs

The cost of operating and maintaining the wastewater system is included in the quarterly wastewater service charge paid to Hunter Water (excluding electricity costs which are your responsibility). The exceptions to this will be if you have:

- discharged something into the pump unit that should not have (refer to Section 3.3.2).
- interfered with the pump unit or its controls.
- damaged the lid of the tank through negligent activity.
- interfered with or damaged the property discharge line or boundary kit.
- sealed off the venting to the pump unit.

4. Frequently Asked Questions

4.1 What do I do if I think a pipe has burst?

Wet ground between the collection tank and property boundary kit may indicate a burst property discharge line. If the ground around the collection tank is wet, or you suspect the property discharge line is damaged, please call Hunter Water on **1300 657 000** immediately (and turn off the power to the pump at your electrical distribution box). Please minimise water use to the system (as suggested in section 3.1.2).

4.2 What do I do if the alarm is activated?

The alarm will continue to sound until it is cancelled, and the red light will remain on. If the alarm is activated and the red light is on, please call Hunter Water on 1300 657 000.

If you are away and you allow your neighbours to access your property, they may silence the alarm on your behalf. If they do, they should call Hunter Water on 1300 657 000.

4.3 Can I put anything on top of the collection tank cover?

No, nothing should be put on top of the collection tank cover and unimpeded access to the pump unit is required at all times.

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4.4 Can stormwater be discharged into the pressure sewerage system?

No, Hunter Water prohibits the discharge of stormwater into any wastewater system. If you notice the alarm activating regularly, after or during a rain event, then please contact Hunter Water so we can investigate the cause.

4.5 What do I do if I want to build a garage, car port or garden shed in the future?

No structure can be built over, nearby to, or prevent access to, the pressure sewer system components on your property.

4.6 What do I do if I want to build an extension to my house?

When considering any modifications to your property, you should check the property wastewater service diagram to locate the pressure sewerage equipment and plan your work accordingly. You should not build any structure near the pressure sewer components on your property. If in doubt, please call Hunter Water on **1300 657 657**.

4.7 Can I still landscape my garden?

Yes, you can, but planting is not permitted within 3 meters of pressure sewer equipment on your property. This is to ensure Hunter Water can access the equipment for operation and maintenance.

4.8 Can I install a swimming pool or large spa?

Yes, but discharging large volumes of water from a swimming pool or spa could cause the alarm to sound and cause an overflow. The homeowner will need to install an additional collection tank or pump (at their cost) to progressively release water into the customer sanitary drain at a rate of less than 30 litres per minute. This will help avoid alarms and unnecessary Hunter Water call outs to the property.

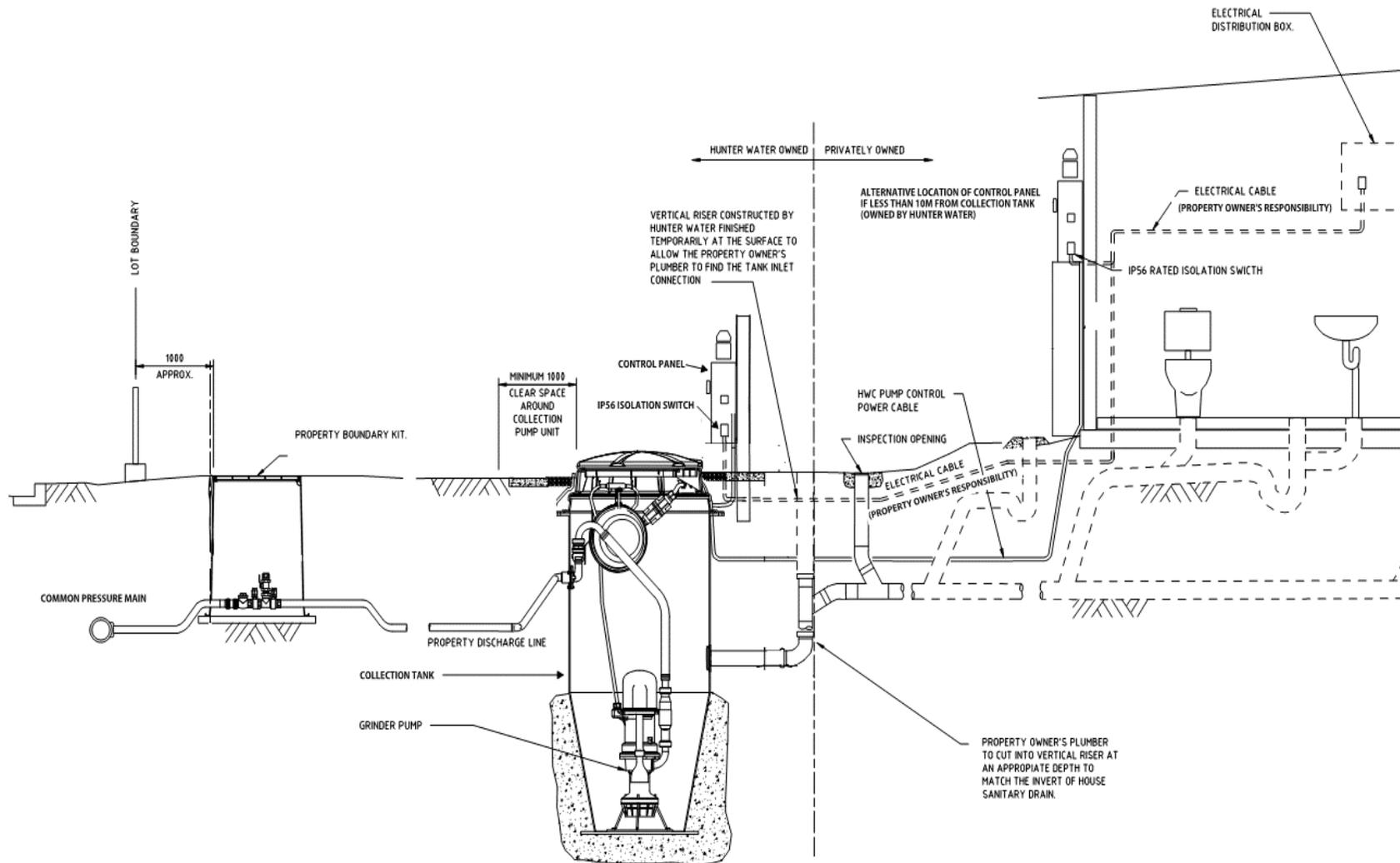
4.9 Who should I contact at Hunter Water?

Information on Pressure Sewer is available on our website at www.hunterwater.com.au. For further more detailed advice please contact our Development Planning and Relations Team via Development.Planning@hunterwater.com.au or via our General Enquiries number on 1300 657 657.



Appendix 1

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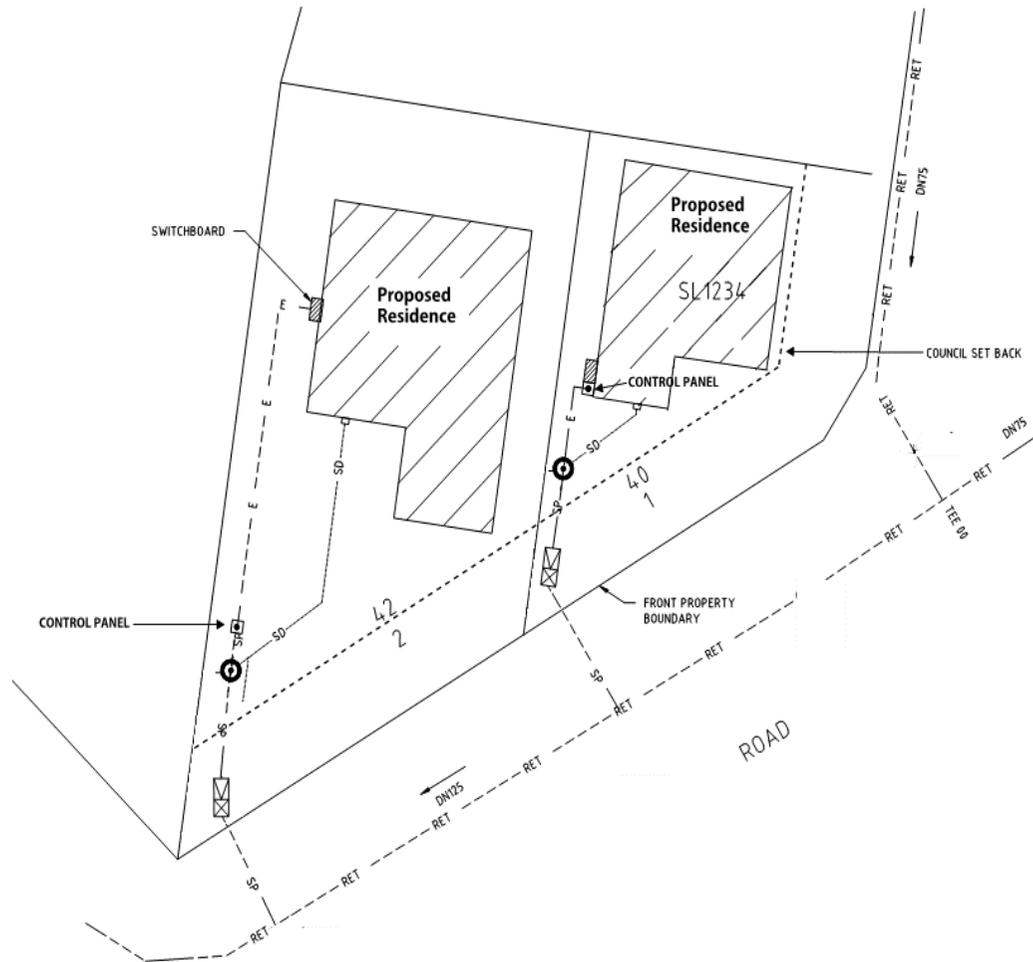


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Appendix 2

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NOTES:

1. THIS PLAN SHOWS TWO TYPICAL LAYOUTS FOR ON PROPERTY PRESSURE SEWER INFRASTRUCTURE. IT ALSO SHOWS TYPICAL DETAILS TO BE SHOWN ON STREET RETICULATION PLANS.
2. THE COLLECTION TANK IS TO BE LOCATED ON THE LOWER SIDE OF THE PROPERTY AT A DISTANCE OF BETWEEN 15M TO 5M TO THE OUTER EDGE OF THE TANK LID FROM THE SIDE PROPERTY BOUNDARY.
3. CONTROL/ALARM PANEL TO BE LOCATED WITHIN 10M OF COLLECTION TANK WITH DIRECT LINE OF SIGHT. WHERE THIS IS NOT POSSIBLE MOUNT ON A FREE STANDING POST POSITIONED WITHIN 4M OF THE CENTRE OF THE COLLECTION TANK.
4. THE COLLECTION TANK IS TO BE LOCATED AT THE FRONT OF THE PROPERTY AT A MAXIMUM DISTANCE OF 3M TO THE CENTRE OF THE TANK FROM THE COUNCIL APPROVED BUILDING SET BACK FROM THE PROPERTY BOUNDARY.

LEGENDS:

	CONTROL/ALARM PANEL
	ISOLATION STOP VALVE
	PROPERTY BOUNDARY KIT
	COLLECTION TANK/PUMPING UNIT
	SWITCHBOARD
	PUMP CONTROL/POWER CABLE
	PRESSURE LATERAL SEWER
	PROPERTY DISCHARGE LINE
	TIES
	PRESSURE SEWER RETICULATION
	SANITARY DRAIN TO COLLECTION TANK

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