



Using your pressure sewerage system

Occupiers manual

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1. Purpose and scope

This manual provides information about the pressure sewer system (PSS) installed on your property.

2. What do I need to know about pressure sewer systems?

Why install a pressure sewer system?

Pressure sewer systems (PSS) are utilised in certain areas because of the topography, ground conditions and / or cost of a conventional sewerage system.

PSS' are an economical and environmentally appropriate way of collecting and transporting household wastewater.



What is a pressure sewer system and how does it work?

A pressure sewer system is made up of a network of fully sealed pipes that are fed by pumping units located on each connected property.

The pumping unit processes household wastewater and transfers it to the pressure sewer –located in the street – via a small pipeline on the property.

The pressure sewer forms part of the overall pipe network that transfers wastewater to the nearest treatment facility.

Once installed, the only visible parts of a pressure sewer system is the tank lid, boundary kit and control panel.

3. Who installs the pressure sewer system?

A Barwon Water contractor installs:

- a PSS pump unit on your property
- electrical cabling – from the tank to the control panel
- a pump control panel to your house.

For more information, see information for builders and plumbers on our website - www.barwonwater.vic.gov.au/residential/pressure-sewer-systems

4. Why do I have an easement on the front of my property?

Easements allow utility provider's access to the assets for maintenance. Unlike conventional gravity sewers, pressure sewerage units are located at the front of the property to simplify access for maintenance.

5. What components make up a pressure sewer system?

The pressure sewer system on your property is made up of eight key elements:

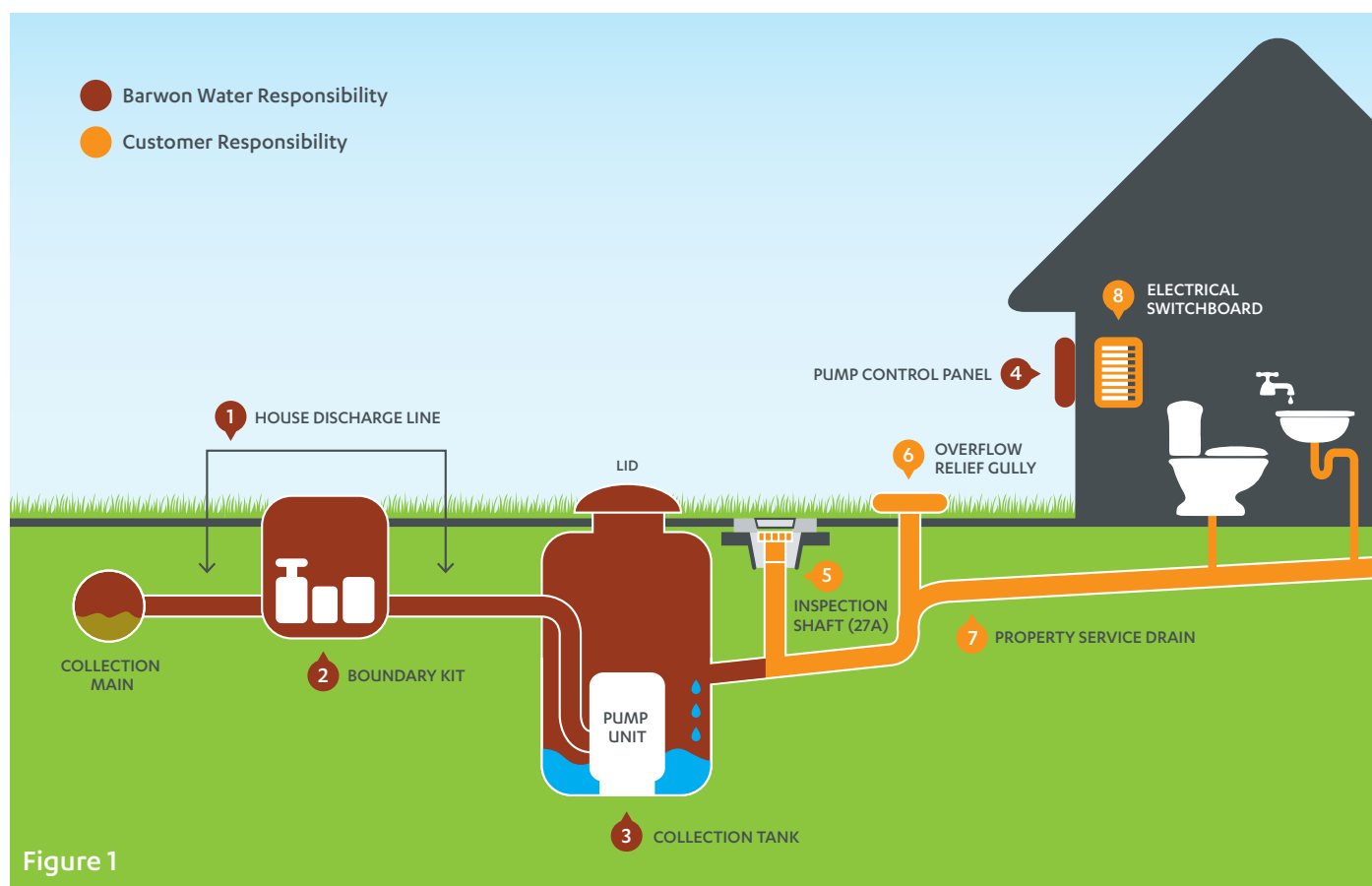


Figure 1

1. House discharge line

The house discharge line connects the pump unit on to the pressure sewer in the street.

2. Boundary kit

The boundary kit ensures wastewater cannot re-enter your property and allows maintenance staff to isolate your pump unit from the system in the event of an emergency.

3. Collection tank and pump unit

Installed underground with only the top of the collection tank (or lid) visible, this component of the system includes a pump unit, collection tank, and level monitors.

4. Pump control panel

This is a small box mounted to the wall of your house. The pump control panel contains electrical controls

for the pump unit, including both audible and visual alarm systems and is linked by telemetry to Barwon Water's sewer monitoring system. The telemetry in the pump control panel will provide adequate warning if the pump unit needs to be serviced by Barwon Water contractors. Unrestricted access to the panel must be provided to Barwon Water.

5. Inspection shaft (27A)

The inspection shaft or 27A is a plumbing fixture that allows plumbers to inspect and service your property service drain. It is a key fixture for future inspections and maintenance works that might be required on your property. It is important that property occupiers maintain access to this fixture. The inspection shaft is the responsibility of the property occupier.

6. Overflow Relief Gully

An overflow relief gully (ORG) protects the interior of your home or building from sewerage overflow. The ORG is a drain like fitting located outside the property and is an important part of the plumbing system. In the event of a sewer blockage, the ORG is designed to release any sewerage overflow away from the interior of your building and outside to a garden or external area. It is important for home occupiers to keep the ORG clear and unimpeded at all times. The ORG is the responsibility of the property occupier.

7. Property service drain

The property service drain is a section of gravity pipeline connecting the sewage pipe outlets from your house to the Barwon Water collection tank. The property service

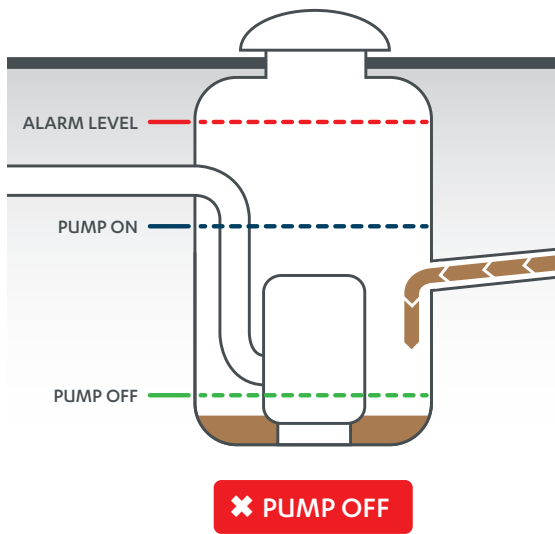
drain is the responsibility of the property occupier.

8. Electrical switchboard

The electrical switchboard is a standard electrical switchboard that connects your property to the power supply system. The electrical switchboard will have a connection point and circuit breaker designated to the power supply for the on property collection tank and pump unit. The electrical switchboard and associated power and operational costs are the responsibility of the property occupier.

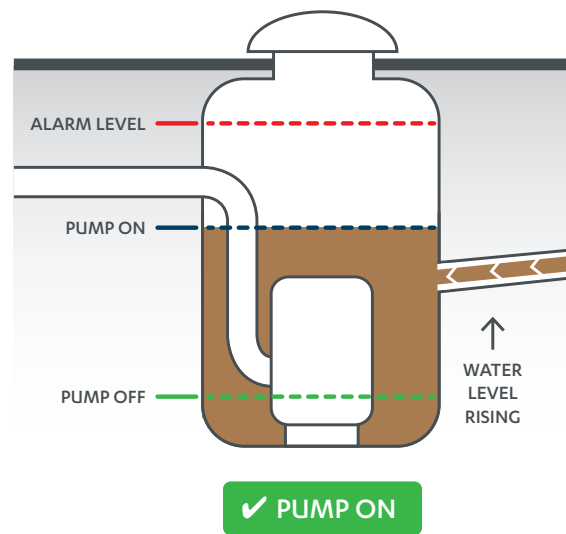
6. How do pressure sewer systems work?

Step 1



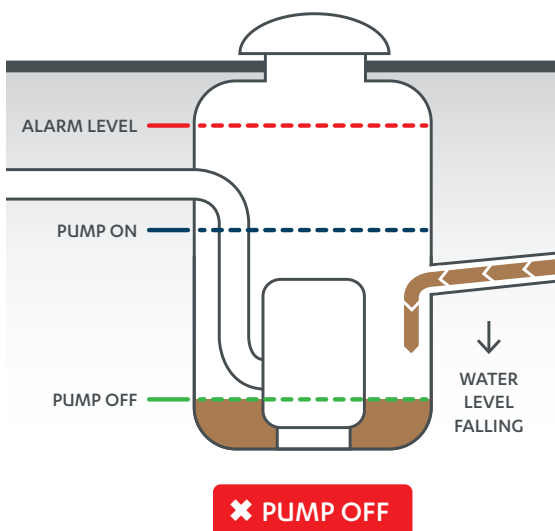
Wastewater enters the storage tank from the household drains (including sinks, toilets, showers, baths etc.)

Step 2



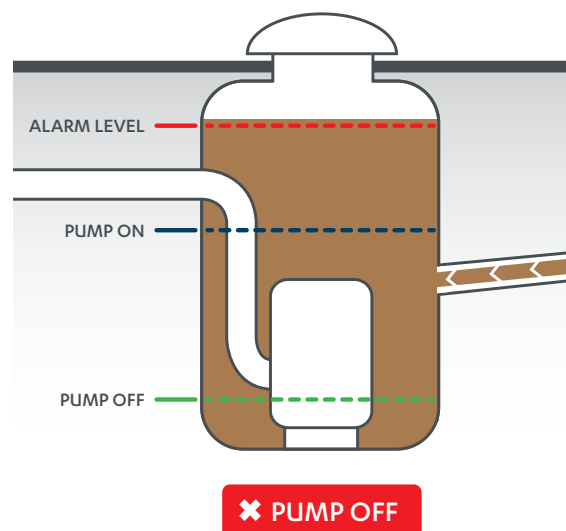
The wastewater level rises above the “pump on” level and the pump automatically turns on.

Step 3



When the wastewater level is reduced below the “pump off” level, the pump automatically turns off.

Step 4



In the event of a power outage or pump failure, the wastewater level may rise above the “alarm level”.

The audible and visible alarm will automatically be activated.

See the section titled “What you need to know about alarms” for further instructions on what to do if the alarm is activated.

7. Important information

What items must **not** be flushed down your household drains?

The following items must not be flushed down household drains and into the sewerage system:

- glass
- metal or metal filings
- seafood shells
- goldfish stones
- nappies, socks, rags or clothes
- wet wipes
- plastic objects
- sanitary napkins or tampons
- kitty litter
- explosives
- flammable materials
- lubricating oil and/or grease
- strong chemicals
- gasoline
- diesoline
- rainwater.

If your PSS pumping unit fails due to any of the above items entering the storage tank, you may be liable for repair costs

Why can't rainwater go into the pressure sewer system?

Pressure sewer systems are designed to accept household wastewater – not stormwater or rainwater as it can:

- increase the costs of pumping
- lead to the pump unit alarm being activated
- lead to the pumping unit overflowing.

Why must I keep heavy weights off the lid?

The lid of the storage tank is not strong enough to withstand the weight of heavy objects. Items greater than 500 kilograms must not be placed over the lid of the tank.

As a guide, the following items should be kept off the lid.

- cars and other vehicles
- ride-on lawn mowers.

8. Alarms

Why is my alarm going off?

PSS faults, including high wastewater levels in the collection tank, will activate a silent alarm at Barwon Water's 24 hour Communications Centre. A service technician will be sent to your property if the fault cannot be rectified remotely. The table on the following page provides you with a step-by-step guide on what to do in the unlikely event of an alarm.



Alarm activation guide

Symptom	Action	How to do it
Alarm sounds	Turn off the audible alarm	<ul style="list-style-type: none"> press the button on the underside of the control panel to disable the audible alarm the audible alarm will automatically shut off after 10 minutes if the button on the underside of the control panel is pressed).
Flashing light	Report alarm activation	<ul style="list-style-type: none"> the flashing light will only turn off if a Barwon Water contractor resets the unit, or the triggering the alarm is resolved automatically.
Power outage	Wait one hour before reporting	<ul style="list-style-type: none"> if the alarm activates following a power outage, please wait for one hour before contacting Barwon Water the alarm may sound when the power is restored as the wastewater level in the storage tank may have built up above the alarm level once power is restored, the pump will recommence pumping, but may take up to an hour for the wastewater level in the tank to drop below the alarm level – due to a number of other pumps trying to empty their tanks at the same time you should attempt to minimise wastewater generation during power outages to limit the amount of wastewater in the storage tank.
Power outage for longer than eight hours	Minimise wastewater generation and contact Barwon Water on 1300 656 007.	<ul style="list-style-type: none"> to minimise wastewater generation: <ul style="list-style-type: none"> do not use washing machines keep showers brief leave the plug in the bath, if filled, or bucket water out onto the lawn switch off any drainage – automated or not – from swimming pools or spas advise Barwon Water of extended power outages, particularly if it appears that the duration may exceed eight hours – excluding time when residents are asleep in the event of extended power outage events, Barwon Water may need to organise for your storage tank to be pumped out.
If alarm sounds frequently and then turns off	Investigate	<ul style="list-style-type: none"> determine if there is any sudden discharge (e.g. from a swimming pool) and see if this has triggered the alarm if the alarm sounds during or after rainfall, rainwater may be entering the storage tank should the problem continue to occur, please contact Barwon Water for investigation and repair.
Barwon Water Officer attends	Create clear access	<ul style="list-style-type: none"> ensure Barwon Water has access to and from the pumping unit as transportation of a faulty pump may be required.

To turn off the audible alarm, press the button on the underside of the control panel. The flashing light will turn off if one of our representatives resets it, or the problem which has triggered the alarm is resolved.

9. How close can I build to a pressure sewer system?

A new building, structure or a modification of an existing structure must be located outside the easements defined for the pressure sewer system. Any work that changes the current shape or form of the ground must also be located outside of defined easements. Components not covered by the easement (e.g. electrical cable and pump control unit) are required to maintain a horizontal clearance of one metre.

The storage tank lid and boundary valve kit must not be covered by any landscaping works. You must also ensure that sufficient space is left around each of these components to enable access if required.

10. What happens if I want to extend my house or landscape the garden?

Extensions to your house

If you are planning to extend your house, you must contact Barwon Water to seek advice on the suitability of your existing pumping unit before commencing any construction activities.

All wastewater from your house must go into the pumping unit, so moving the unit will be dependent on the layout of your land.

Barwon Water will consider relocation of a PSS, but this must be completed by authorised contractors at the customer's expense.

Any changes to the original installation must be documented and submitted to Barwon Water to ensure maintenance staff can locate key system components in the event of an emergency.

In most cases the pressure unit will be located at the front of the property within the building set back, therefore, extensions in this area will be rare.

The boundary kit and pumping unit are within a Barwon Water easement, this may need to be amended if assets require relocation.

House service line

The house service line is a polyethylene sewer pipe connecting the pumping unit on your property to the pressure sewer in the street. It is worth familiarising yourself with the exact location of the house service line so it can be moved – if required – or avoided if work is being completed on your property. The house service line can be found using one of the following methods:

- detectable marker tape is buried just above the pipeline and can be located by a builder
- if the builder cannot detect the tape, please telephone Barwon Water on 1300 656 007 and an officer will peg the line at a cost.

Bungalows or other dwellings

It may be possible for a pumping unit to service both the main and additional dwellings on your property, depending on the layout of the land.

Please telephone Barwon Water on 1300 656 007 for advice.

Landscaping

The storage tank lid and boundary valve kit must not be covered by any landscaping works. There must also be sufficient space left around

each of these components to enable maintenance staff access at all times.

Landscaping over the house service line is permitted, however you will be responsible for all repair costs for any damaged caused.

Garages, driveways, decking and garden sheds

Garages, driveways, decking and garden sheds must not be built over the pumping unit or boundary valve kit.

Barwon Water approval is required to build any structures over the house service line.

Installing a swimming pool or large spa

Installing a swimming pool or large spa can result in large amounts of water being discharged quickly to the pumping unit if backwashing filters or emptying.

In some cases, the pumping unit may not be able to cope with this and the alarm may activate or the pumping unit may overflow.

If you are thinking about installing a swimming pool or spa, contact Barwon Water on 1300 656 007 for advice on how to avoid potential problems.

11. What special precautions do I need to take when going on holidays?

If the property is unoccupied for more than three days, your PSS pumping unit will need to be flushed to prevent potential odour problems. Barwon Water may need to flush your storage tank if unattended for more than three days. You may be liable for costs if this occurs.

To flush, run at least 190 litres of water into your household drains to activate the PSS. This can be

achieved by doing a couple of loads of washing or using the shower just prior to leaving the property.

If you fail to clean your pressure sewer system before going on holidays, Barwon Water might have to flush the storage tank in response to complaints from residents in the area. You may be liable for costs if this occurs.

12. Pumping unit repairs and warranties

Pumping unit repairs

The pump unit and connecting pipe to the main line in the street is owned and operated by Barwon Water. You are only responsible for the property service drain connecting your household wastewater outlets to the collection unit.

If for any reason the pump unit or pump-control fails, the wastewater level in the tank will rise to a point where an alarm will be sent – by telemetry – to Barwon Water's 24 hour Communications Centre.

A service operator will monitor the problem and if it does not self-correct then an authorised service contractor will attend your property. If the problem found is difficult to solve, the pump or control box can be replaced on site.

If the wastewater level in the collection tank reaches a certain level – due to abnormal operating conditions – an audible alarm will sound. You can press a button to stop and reset the audible alarm – refer to page six.

If an alarm is activated, you should contact Barwon Water on 1300 656 007 – 24 hours – and minimise the use of any in-house water fixtures until an authorised contractor attends your property.

You are responsible for ensuring the collection tank lid is readily accessible at all times.

Pumping unit servicing

The average pumping unit requires servicing once every eight to ten years.

Pressure sewer bursts

If you notice wet ground or water escaping from your plumbing, it is possible that a burst may have occurred.

Such breaks are rare and are more likely to occur due to work being carried out near the pipes.

If you become aware of a burst, please contact Barwon Water on 1300 656 007.

Warranties and repair costs

Pumping unit warranty

The pit on your property can only be accessed by Barwon Water or a licensed representative.

Work by unauthorised representatives may void your warranty and make you liable for future costs.

Replacement

If pumping units require replacement you will not be required to cover the costs, unless you have:

- emptied banned substances into

the pumping unit - refer to page four

- accessed the pumping unit including opening the storage tank lid
- interfered with the house service line or boundary valve kit
- blocked off vents to the storage tank.

13. Conditions for connection for pressure sewer systems as determined under Section 145 of the *Water Act 1989* (applicable when making application to connect in a pressure sewer service area)

Terms and conditions

In these conditions, connecting works means;

- a) all parts of the sanitary drains between any fixtures or appliances on your property sewer connection branch and;
- b) the collection pit and grinder pump; and
- c) the pressure drain between the grinder pump and our sewer connection branch; and
- d) the electricity control panel for the grinder pump; and
- e) the electrical wiring between the main electrical switchboard on the property and the grinder pump in the collection pit; and
- f) the drains and fittings which we use or intend to convey sewerage from the inlet to the isolation valve in the boundary kit, to our sewer collection main.

1. Plumbing works

All plumbing work must comply with the current version of the Plumbing Code of Australia incorporating AS/NZS3500. The Victorian Building Authority (VBA) is the regulating authority for plumbing. The plumbing works must comply with the current relevant regulations and standards (Plumbing Standards). All enquiries relating to Plumbing Standards should be directed to the VBA on telephone 1300 815 127.

1.1 The connecting works must be installed so that they comply, in all respects, with the:

- a) Plumbing Regulations 1998 (Vic);
- b) Water Industry Regulations 2006 (Vic);
- c) Building Act 1993 (Vic);
- d) Relevant AS/NZS series of standards applicable to sewer

connection branch and connecting works from time to time;

- e) WSAA Pressure Sewerage Code of Australia WSA 07-2007;
- and any other technical requirements which we specify.

2. Installation of pump and electrical

2.1. The PSS control panel will be mounted on the side of a building on the property and be connected to the electrical power supply to the owner's property. With new properties, your electrician will need to provide a circuit breaker in the household electrical switchboard and install a power cable to an isolation switch next to the proposed control panel location.

2.2. We will arrange this with your electrical contractor/builder. In addition we will install the control panel and the associated electrical cabling to the pump and the isolation switch. We will pay for the cost of these works.

3. Property service plan

The owner must submit a property service plan including gravity property service drain and all fixture units.

4. Costs and charges

4.1. The owner is responsible for paying for the power consumption of the PSS.

4.2. The owner must gain approval from Barwon Water to relocate any components of the PSS on the property and then works can only be undertaken by a Barwon Water approved contractor at the owner's cost.

4.3. Where change to site conditions including surface levels requires the pump and tank unit and/or property service line, maintained by the Barwon Water to be relocated / altered, all alteration work/s are to

be undertaken by Barwon Water at the owner's cost. This includes any alterations to the power cable from the pump and tank unit to the main electrical switchboard for the house and pump control panel.

5. Asset protection

In accordance with Section 145 you must not, without our separate permission, cause or permit any structure to be built, or any filling to be placed:

- a) within 1 metre laterally of any of our works (refer figure 1); or
- b) on land over which an easement exists:
 - (i) in favour of us; or
 - (ii) for water supply or sewerage purposes.

You are required by law to remove any such structure or filling if we ask you to, within such time as we determine.

If you do not remove the structure or filling within the time we have determined, we have legal power:

- a) to enter your land and remove the structure or filling; and
- b) to recover the reasonable costs we incur from you.

Where driveways/paving are constructed over easements for water supply/sewerage purposes, or within 1 metre of a Barwon Water asset, the owner will be responsible for all costs associated with any demolition and or re-instatement works, necessary to allow maintenance and or repair of the asset/s affected.

6. Damage to asset

6.1. If you, or someone else for whom we are not responsible for (e.g. visitors), damages the boundary valve kit, pump unit, control panel, electrical cabling or connecting pipe work, we will arrange for the repairs

to be made. You will be required to reimburse Barwon Water for the cost of these repairs.

6.2. If Barwon Water, or someone for whom we are responsible, damages your land or anything on it while carrying out work referred to above, the legislation under which we operate requires us to either rectify the damage or compensate you for it, provided you have complied with the landscaping requirements as set out in the occupiers' manual.

7. Maintenance

7.1. The owner is responsible for all damage to the PSS. Barwon Water will maintain the PSS, at our cost.

7.2. You will be required to maintain the electrical cabling between your power switchboard and the control panel to the pump unit. You must ensure that there is a continuous supply of electricity to the grinder pump.

7.3. The owner must immediately notify Barwon Water of:

7.3.1. damage to the PSS; and

7.3.2. alarms or faults with the pump unit control panel, or electrical cables and pipes on Barwon Water side of the inspection opening.

7.4. We will keep any sewer connection branch in repair and good working order, at our cost.

8. Ownership and occupation

8.1. Barwon Water takes ownership of the PSS connection to the reticulated system.

8.2. The owner will own the property drain.

8.3. The owner must notify any occupier of the property to the existence of the PSS, and these terms and conditions, while remaining liable for all aspects of these terms and conditions.

9. Pools and spas

If the property includes a pool or spa which discharges water at more than 0.5 litres per second to the PSS, the

owner must limit the flow by installing any of:

9.1 an intermediate holding tank; or

9.2 a duplex pump arrangement; or

9.3 a flow limiting valve; or

9.4 other device.

Such installation must be carried out to the satisfaction of Barwon Water by a licensed plumber.

10. Restricting water use

10.1. If the owner discovers damage to the PSS or the property drain, the owner must restrict, as much as possible, the amount of water that is discharged to the owner's property drain.

10.2. The owner must only discharge appropriate waste into the PSS that will not damage the PSS, the pump unit or other Barwon Water infrastructure. The cost of any repairs caused by discharging inappropriate waste material through the PSS must be paid by the owner.

11. Guidelines

The owner must ensure that a copy of the occupiers manual is kept at the property at all times, even if the property is leased or rented.

12. Selling the owner's property

The owner must bring to the attention of any prospective purchaser of the property, these terms and conditions and the guidelines.

13. Non-compliance with terms and conditions

13.1. Any breach any of these terms and conditions by the owner, any occupant or visitor to the property, without limiting the remedies available to Barwon Water, will allow Barwon Water to do any or all of the following:

13.1.1. require the owner to take specified actions to remedy the breach;

13.1.2. refuse to accept discharges from the PSS into Barwon Water's reticulated sewer system until the

breach is remedied;

13.1.3. exercise powers available under Statute; and

13.1.4. revoke consent for the connection and disconnect the PSS.

14. Our plans:

If we supply you with any plan with these conditions, or for the purpose of a connection being made to our assets:

14.1. We do not provide any warranty, express or implied, as to the accuracy, completeness, currency or reliability of plans provided. Furthermore, Barwon Water does not provide a warranty that the scale of the plans is accurate, or that they are suitable for a specific purpose.

14.2. These plans are intended for general information only. Barwon Water is not responsible and does not accept liability for any loss, expense or damage (direct or indirect) which has arisen from reliance on any plans provided by Barwon Water;

14.3. you (or your plumber on your behalf) must:

14.3.1. make independent inquiries about the location of each asset and about each relevant dimension on the plan: and

14.3.2. Prove the location of every asset on the land by hand before starting plumbing works; and

14.3.3. It is the responsibility of users of the plans to ensure the accuracy of the plans by independent means and to take care when undertaking works that have the potential to damage Barwon Water assets.



For further information:

PO Box 659 Geelong VIC 3220

☎ 1300 656 007

✉ info@barwonwater.vic.gov.au

www.barwonwater.vic.gov.au