



## **Solo Water**

Catherine Hill Bay Water Utility

# Home Owner's Manual



## Table of Contents

<b>1. INTRODUCTION .....</b>	<b>2</b>
<b>2. CONTACT NUMBERS .....</b>	<b>2</b>
<b>3. OUR WATER AND RECYCLED WATER SYSTEM.....</b>	<b>3</b>
3.1. RECYCLED WATER SYSTEM.....	3
3.2. PLUMBING WITH OUR SYSTEM .....	3
<b>4. HOW A PRESSURE SEWERAGE SYSTEMS WORK .....</b>	<b>5</b>
4.1. PARTS OF THE PRESSURE SEWERAGE SYSTEM LOCATED ON YOUR PROPERTY .....	5
4.2. RECYCLING PROCESS.....	5
4.3. SYSTEM OPERATION .....	6
<b>5. THINGS TO CONSIDER .....</b>	<b>6</b>
5.1. ACCESS TO YOUR PROPERTY .....	6
5.2. POWER OUTAGE.....	6
5.3. CROSS CONNECTION .....	6
5.4. LEAK DETECTION.....	7
<b>6. SPECIAL PRECAUTIONS .....</b>	<b>8</b>
6.1. ITEMS THAT YOU SHOULD NOT PUT DOWN THE SEWER.....	8
<b>7. COMMUNITY EDUCATION ON RECYCLED WATER .....</b>	<b>9</b>
7.1. WHAT YOU CAN USE RECYCLED FOR .....	9
7.2. WHAT NOT TO DO .....	9
7.3. BENEFITS OF RECYCLED WATER .....	10
<b>8. RESPONSIBILITY AND REPAIRS .....</b>	<b>11</b>
8.1. WARRANTIES / REPAIR COSTS.....	11
8.2. SERVICE ARRANGEMENTS .....	11
<b>9. FREQUENTLY ASKED QUESTIONS .....</b>	<b>13</b>
9.1. EXTENSIONS TO YOUR HOUSE .....	13
9.2. HOUSE SERVICE LINE.....	13
9.3. LANDSCAPING .....	13
9.4. GARAGES, CAR PARKS, DECKING AND GARDEN SHEDS? .....	14
9.5. WHY CAN'T RAINWATER GO INTO THE PRESSURE SEWER SYSTEM? .....	14
9.6. WHY MUST I KEEP HEAVY WEIGHTS OFF THE LID?.....	15
9.7. CAN I INSTALL A SWIMMING POOL OR LARGE SPA? .....	15
9.8. WHAT HAPPENS IF I HAVE A PARTY AT MY HOUSE?.....	15
9.9. WHAT DO I DO IF I THINK A PIPE HAS BURST? .....	16

## 1. INTRODUCTION

Congratulations on your choice to reside in Beaches Catherine Hill Bay.

We would like to introduce our company, Solo Water. We are in charge of your drinking water, recycled water and sewage systems that will help with the sustainability of this great location for generations to come.

Solo Water is an Australian owned business and part of the Solo Resource Recovery group which has a strong and long history of providing services to Australian communities since 1932.

This is your Homeowner's manual for the water and sewer components located on your property. Whether you are an owner, tenant or visitor; this manual provides important information you should be aware of regarding sewer and water systems at Beaches Catherine Hill Bay.

Please read this manual and store in a safe place for future reference and future occupiers.

Please contact Solo Water if you are unsure about anything in this Homeowner's manual or if there is a potential issue that you think has not been included.

## 2. CONTACT NUMBERS

The main telephone number for all customer contact is 1300 7656 98 (1300 SOLO WU).

Emergency Contact	1300 7656 98, then press 1
Fault Line	1300 7656 98, then press 1
Account Enquires	1300 7656 98, then press 2
General Enquires and Feedback	Solo Water Website <a href="http://www.solowater.com.au/">http://www.solowater.com.au/</a> 1300 7656 98, then press 3
Email	<a href="mailto:info@solowater.com.au">info@solowater.com.au</a>

Faults and Emergencies call 1300 7656 98 the line is open 24 hours a day 7 days a week. Let the operator know who you are, where you are located and the issue.

### **3. OUR WATER AND RECYCLED WATER SYSTEM**

#### **3.1. Recycled Water System**

Solo Water have provided best-practice water recycling systems and technology to harvest the water used in the kitchens, bathrooms and laundries of homes at Beaches Catherine Hill Bay. This most precious of resources is recovered, purified and recycled for re-use in laundries and toilets, and for irrigating lawns, gardens and parks. By using recycled water we are significantly reducing drinking water usage and thereby allowing more water to be returned to the natural ecosystems - keeping them healthy and creating a sustainable future.

Our recycled water system gives households in Beaches Catherine Hill Bay a secure, year round water supply. In particular, for irrigation and car washing which can be affected by water restrictions in areas without recycled water.

Solo Water will supply water, recycled water and sewage services for Beaches Catherine Hill Bay.

Recycled Water is supplied for irrigation, washing clothes (cold water inlet) and flushing toilets.

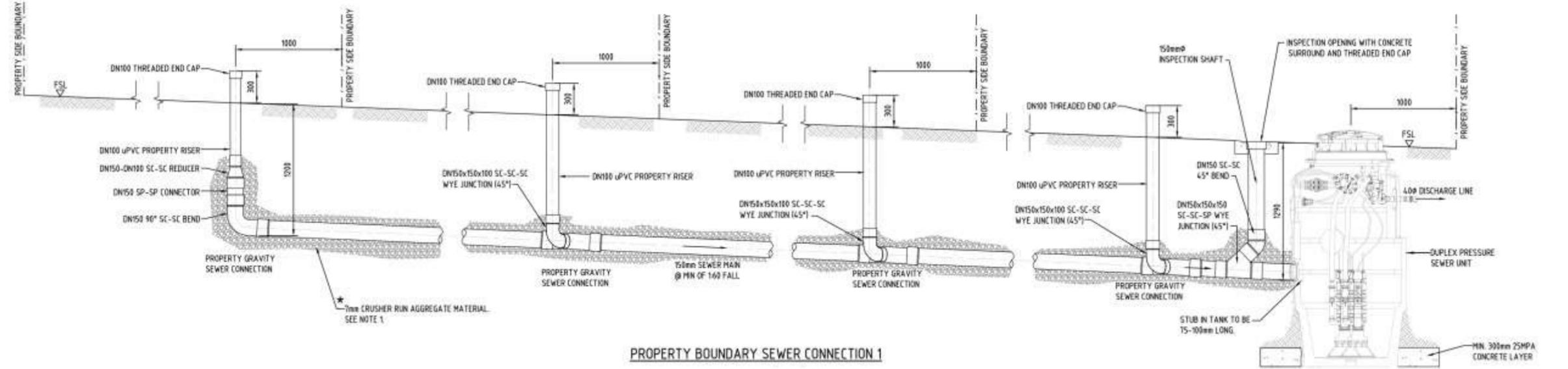
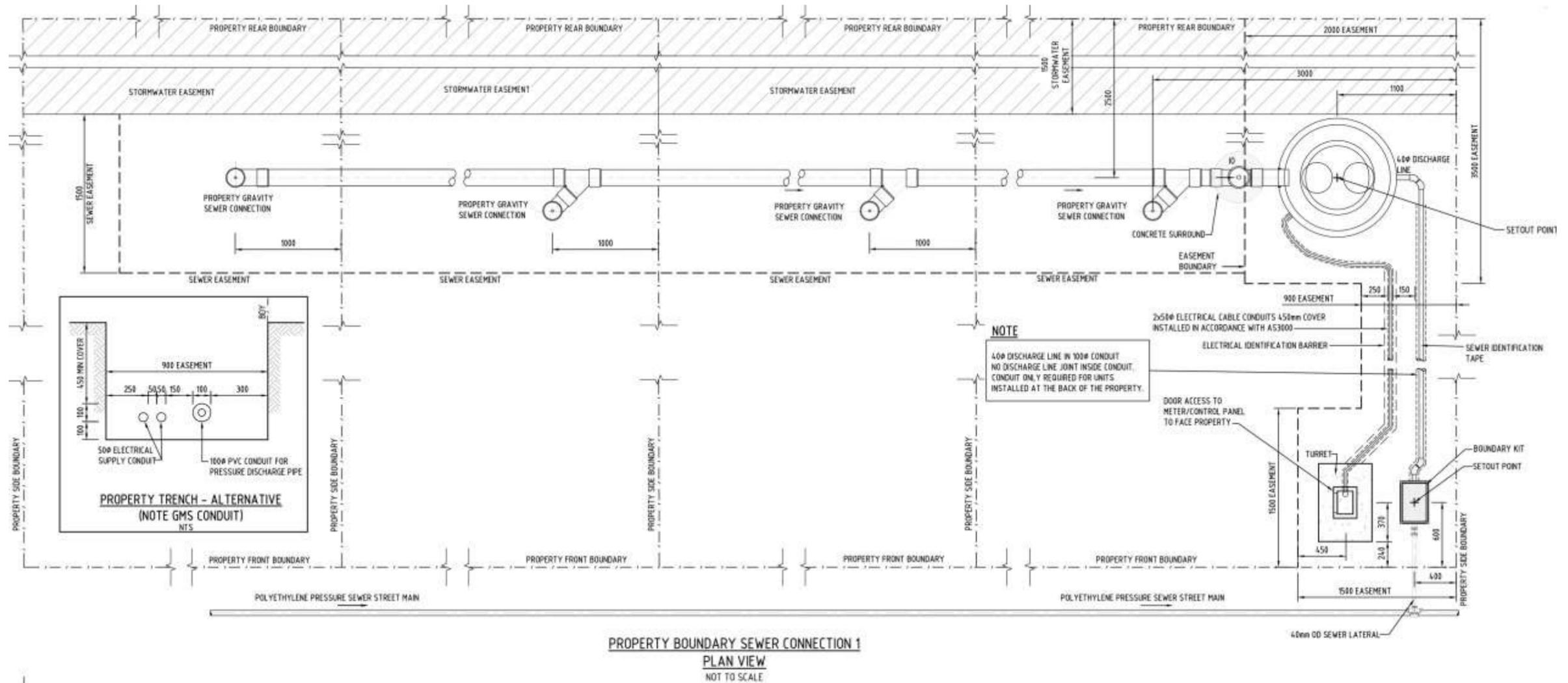
If you are supplied with recycled water, Section 7 - *Community Education on Recycled Water* sets out the standard requirements for its safe use. Please ensure that you take the time to familiarise yourselves with this information as Solo Water cannot be held responsible if the recycled water is used in a manner that is contrary to the information provided.

#### **3.2. Plumbing with Our System**

We will take all reasonable steps to reduce the risk of cross-contamination in Our System, including separate piping for all drinking water reticulation mains, appropriate accreditation of plumbers in relation to installation and connection works, and the publication of guidelines for you and your tradespersons in relation to your household appliances and internal plumbing connected to Our System.

You must not tamper with or otherwise make any modifications to Our System without first obtaining our express written permission. If you don't do this, then there is a heightened risk of cross-contamination of your drinking water with other water sources.

Figure 1 – Typical pressure sewerage system installation



## 4. HOW A PRESSURE SEWERAGE SYSTEMS WORK

### 4.1. Parts of the Pressure Sewerage System located on your Property

Pressure sewerage systems have the following main components:

1. **The boundary kit** is in a small black plastic pit with an access lid located at the front of the property. You do NOT have authorisation to open the boundary kit.
2. **The pressure sewer unit tank** is black polyethylene with a green access lid on top and is located just above ground level. Located inside the tank are dual grinder pumps, associated controls and electrical connections. The unit is located at the front or back corner of your property inside a 2m x 2.5m easement. **Note: Do not take off the lid or enter the PSU well.** The inside of the PSU well represents a confined space working environment that could be potential lethal without appropriate training and equipment.
3. **The property discharge line and power conduits.** If your Pressure Sewer Unit (PSU) is located at the back of your property, then a 900mm easement will run along your boundary containing a property discharge line and two 50 mm power conduits. The property discharge line is a 40mm black poly pipe with brown stripping encased in a 100 UPVC tube which runs along your boundary to the front of the property where it connects to the boundary kit. The two 50mm power conduits run along side the property discharge line connecting the pressure sewer tank to the control pillar located in a 1500mm x 1500mm easement.
4. **The control pillar**, located at the front of the property, houses the metered power supply, the control panel and mechanical switching to operate the PSU. This pillar should only be accessed by Solo Water personal.
5. **The customer sanitary drain** is connected to an existing point of connection on the lot by the builder/owners plumber during construction.

### 4.2. Recycling Process

Wastewater is transferred from your home to the pressure sewerage unit (PSU) via a gravity drainage system. When the water level in the PSU reaches a pre-set level, the PSU will pump the waste water out to a street main via the boundary kit. The street main will transfer the waste water to the Recycled Water Treatment Plant (RWTP). The wastewater is then processed to Class A+ standard recycled water suitable for domestic reuse as to Australian Water Recycling Guidelines. The next step is to return the recycled water to homes and community facilities via the lilac reticulation system, ready for designated uses. E.g. Toilet flushing, Garden Watering, Car washing, Wash down, Open space irrigation and Cold water supply to washing machines.

### **4.3. System Operation**

The system is fully automated and requires no input from the home owner to operate. The monitoring system at the RWTP is in control of the entire pressure sewer network. If there is any type of fault within the system, the plant operator will be notified straight away through the 24 hour monitoring system and a maintenance crew will visit the affected area and carry out the required repairs. The monitoring and control system can isolate any part of the network if required.

## **5. THINGS TO CONSIDER**

### **5.1. Access to your property**

Please ensure that Solo Water can gain access to the water meters and Pressure Sewerage system at all times.

If the Pressure Sewerage system is located at the back of your property and your property is fenced, please ensure that there are gates so that Solo Water or its representatives are able access the PSU's at all times.

When we enter your property, our staff or contractors will carry identification that will be shown to you (or to any person present at the time of access).

### **5.2. Power Outage**

During a power outage the pumps and controls will not operate but **you can still use the wastewater system.**

Toilets can still be flushed and normal kitchen activities can proceed.

The tanks have been designed to store sewage for many hours in these events. Our system is designed to recover from a power outage without the need to reboot any control panels in the field. When power is restored the pumps will simply restart.

During these times we do ask you to minimise your water usage where possible.

If it appears that a power service interruption will be longer than twenty-four hours, Solo Water may visit your property to manually pump out wastewater from the pressure sewer unit.

### **5.3. Cross Connection**

We have taken all reasonable steps to reduce the risk of cross-contamination in Our System, including separate piping for all drinking water reticulation mains,

Before you move into your house, Lake Macquarie City Council conducts an inspection of Your plumbing system to make sure there is no cross connection of recycled water and drinking water pipe.

If you conduct future plumbing work, it is your responsibility to make sure an appropriately licenced NSW plumber conducts this job for you. If you suspect any cross connection of your system you can get a licenced NSW plumber to test the system and issue you with a cross connection certificate.

You must not tamper with or otherwise make any modifications to Our System without first obtaining our express written permission. Contravening this could result in the heightened risk of cross connection of your drinking water with other water sources.

#### **5.4. Leak Detection**

Leaking water pipes, taps or showerheads in a home are a common occurrence and could mean that a precious resource is being wasted.

There are some steps that you can take to determine if you have a leak.

1. Turn off all the water within your property
2. Go out to your water meter located at the front of your property
3. Write down the numbers on the water meter dial
4. Wait 5 minutes
5. Check if the last numbers on the dial have changed. If the numbers on the dial have changed then you have a leak in your system.
6. Call you local licenced plumber to fix the leak in your system.

## 6. SPECIAL PRECAUTIONS

### 6.1. Items that you should not put down the sewer

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

It is very important that the following items are **NOT** flushed down any of your household drains (sinks, toilets, showers, baths etc.) and into the sewerage system, whether conventional or pressure:

- Cigarette butts
- Condoms
- Glass
- Metal ornamental filings
- Seafood shells
- Stones, Goldfish stones
- Nappies, socks, rags or clothes
- Plastic objects
- Sanitary napkins or tampons
- Kitty litter
- Explosives
- Flammable materials
- Lubricating oil and/or grease
- Chemicals
- Gasoline, diesel or other fuels
- Rainwater or stormwater
- Any solid waste

The customer may be responsible for meeting the cost of repairs if any of the above items enter the sewer system causing the system to fail. Please call Solo Water on 1300 7656 98 if you are unsure about what items can go into the pressure sewer system.

### Things we do not put into the Pressure Sewer System:



## **7. COMMUNITY EDUCATION ON RECYCLED WATER**

The recycled water that you receive is of Class A+ quality, which is the highest Australia Standard. It is specially treated using Solo Water's engineered treatment process.

### **7.1. What you can use recycled for**

The class A+ water can be used for.

- Toilet flushing,
- Garden Watering,
- Car washing,
- Wash down,
- Open space irrigation and
- Cold water supply to washing machines.

Drinking water will also be supplied in your bathroom and kitchen for washing and cook. Outside drinking water will be supplied for drinking water for your animals and if you have a pool or spa the water to fill those items.

### **7.2. What not to do**

Precautions are to be taken when using recycled water. Please adhere to normal hygiene practices when using recycled water. This includes washing hands with detergent and potable water after use. If you have wounds, cuts or abrasions wear a protective cover over those areas. Should they come into contact with recycled water wash immediately with antiseptic solution and potable water. If you consume any recycled water you should seek medical advice.

To avoid cross contamination with the potable water supply we will ensure that all of the recycled water equipment is marked with 'recycled water', 'non-potable', 'not for drinking' or is lilac (purple) coloured. A licensed plumber should connect your house to the recycled water system. Do not store recycled water for periods longer than 24 hours.

Exercise caution when using recycled water to ensure that you do not over irrigate leading to excess runoff.

Recycled water CANNOT be used for;

- Human consumption and drinking
- Hot water systems
- Bathing
- Household cleaning
- Cooking or other kitchen purposes
- Swimming pools and spas
- Evaporative cooling systems/coolers
- Children's water toys

If you have a potential use that is not listed, please contact Solo Water first so we can determine if it is safe or not.

### **7.3. Benefits of Recycled Water**

Recycled water has the following benefits:

- Sustainability (reuse, less pressure on the potable water resources, more water for the waterways and native flora)
- Water restrictions (Do not have to restrict your water usage to the level of residents who rely only on potable water during drought periods)
- Costs (the cost of recycled water is less per volume than potable water)
- Reduced volumes of treated wastewater disposed of the environment
- Reduced energy consumption by recycling wastewater close to its source.

## **8. RESPONSIBILITY AND REPAIRS**

Solo Water will service and repair the main water, recycled water, water meters, wastewater pipes and all of the pressure sewerage equipment on your property, provided it is used in accordance with this Home Owner's manual.

The Solo Water Customer Contract between the owner and Solo Water outlines your rights to ongoing maintenance and repairs of the pressure sewerage equipment on your property.

Solo Water is not responsible for the customer sanitary drain to the collection tank and the water and recycled service connection from the meter to the house.

Repairs to these items are your responsibility and works should only be performed by a fully licensed plumber in NSW.

### **8.1. Warranties / Repair Costs**

The cost of operating and servicing the water and wastewater system is included in the quarterly service charge paid by the property owner to Solo Water.

The exceptions to this will be if you have:

- Discharged something into the collection/pump unit that you have been told not to (refer to Section 6.1).
- Interfered with the collection/pump unit, or its controls.
- Interfered with or damaged the property discharge line or property boundary assembly.
- Sealed off the venting to the collection/pump unit.

Only our licensed representatives may carry out repairs on our water system and pumping unit. Any work not authorised by Solo Water in writing may void warranties and you may become liable for future costs.

### **8.2. Service Arrangements**

Routine servicing of our water and pressure sewer systems may need to be carried out on your property and should take less than one hour to complete.

We will give you, or the occupier of your property, two days written notice specifying the date, and approximate time of our entry onto your property, unless you agree to a shorter notice period.

We will not give you written notice in cases where:

- a) entry is required urgently
- b) the purpose is to read, fit, exchange or maintain a meter
- c) giving notice would defeat the purposes of entry

- d) we intend to conduct a water restriction investigation on your property
- e) we conduct a general property inspection such as meter, plumbing or a backflow device inspection.

When entering your property we will ensure that we:

- Cause as little disruption or inconvenience as possible.
- Remove all rubbish and equipment we have brought on to the property.
- Unless otherwise agreed, we will endeavour to leave the property as near as possible to the condition that it was found on entry.

Should we incur damage by our entering your property, you may be entitled to compensation from us.

## **9. FREQUENTLY ASKED QUESTIONS**

### **9.1. Extensions to your House**

Solo Water must be consulted prior to the commencement of any construction or extensions to your property.

### **9.2. House Service Line**

The house service line is a 40mm diameter polyethylene pipe, which connects the pressure sewer unit to the boundary kit. From the boundary kit located at the front property boundary a 40mm diameter pipe will connect to the pressure sewer main in the street.

**Please Note: If a PSU is located at the back of your property there will be a 40mm sewer discharge line & two power conduits running down your boundary fence to the front pressure sewer boundary kit and control pillar.**

It is recommended that you familiarize yourself with the exact location of the house service line so that it can be avoided if work is being done on your property, e.g. future landscaping.

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 your builder.
- If you cannot detect the tape, contact us on 1300 7656 98 and or a service locator service.

**Caution: Contact with live power lines can cause death or serious injury.**

**Please contact Solo Water and a professional services locator prior to undertaking any excavation activities on your property, including installation of fences.**

### **9.3. Landscaping**

Landscaping over the house service line and around the control pillar is permitted. However, if repairs are required, you will be responsible for the costs of any reinstatement works to repair any damage.

The storage tank lid and boundary valve kit must not be covered or put into a low-lying depression by any landscaping works. You must also ensure that sufficient space is left around each of these components to enable our maintenance staff to access them.

The control pillar will need to remain accessible at all times. No plants or shrubs can be planted in front of the control pillar door.



**Figure 9.1 Example of Suitable landscaping arrangements**

#### **9.4. Garages, Car Parks, Decking and Garden Sheds?**

Garages, car parks, decking and garden sheds are not to be built over or within the zone of influence of the pumping unit, pipe work and boundary valve kit. Solo Water approval is required to build any of these structures over the house service line.

Please email Solo Water [info@solowater.info](mailto:info@solowater.info) for further assistance.

#### **9.5. Why can't rainwater go into the pressure sewer system?**

The pressure sewer systems are only designed to accept household wastewater, NOT stormwater or rainwater. Rainwater must NOT be directed into the sewerage system for the following reasons:

- It will increase the costs of pumping for you; and
- It will lead to an alarm being activated on the PSU monitoring system and an audit of your plumbing system will be conducted to check for cross connections.
- In extreme situations, the pumping unit may overflow.

### **9.6. Why must I keep heavy weights off the lid?**

The lid of the pressure sewer tank is a specifically engineer device but it is not strong enough to withstand the weight of heavy objects. We recommend that you do not place any objects on the pressure sewer tank. You may be liable for the rectification costs for any damage caused to the tank on your property.

### **9.7. Can I Install 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 during activities such as backwashing filters or emptying. In some cases, water could enter the collection/pump unit faster than the system can pump it out. This will cause an alarm to register on the monitoring control system, and may also cause an overflow. In addition to this the high salt and chlorine concentration in pool water can be a nuisance to our recycled water treatment systems.

The preferred solution for a pool filter is to use a cartridge filter. These systems are not required to be backwashed and hence do not need a connection to the sewerage system.

If you do not choose to install a cartridge filter type system, you are required to get your licenced plumber to install a balance tank with a minimum volume of 2000 litres and a restricted outlet so the discharge to the sewer is controlled to less than 15 litres/minute.

If your pool is not installed correctly and we are called out to your property due to excessive pool backwashing volumes entering the sewerage system, a call out service fee may apply and you may be issued with a rectification notice.

Pools are very heavy objects and if constructed in an incorrect location will cause damage to our assets which may be very expensive for you to rectify. Before you can build a pool you must apply to Solo Water to have your building plans assessed and stamped. This is to ensure that you are not building your pool on or within the zone of influence of our easements and assets. Any building work near our assets will require specially designed footings certified by a qualified engineer to ensure that the pool will not damage our assets. More information on this is provided at [www.solowater.com.au](http://www.solowater.com.au).

### **9.8. What happens if I have a Party at my House?**

The pressure sewerage system is designed with enough capacity to accommodate sudden increases in wastewater caused by parties or large numbers of visitors. This will not affect the pressure sewerage system.

### **9.9. What Do I do if I think a Pipe has burst?**

If you notice wet ground or water escaping from your plumbing, it is possible that a burst may have occurred. If it has occurred in your system please contact your plumber.

If you become aware of such a fault or that wet ground or water escaping is from the Solo Water system please contact Solo Water 1300 7656 98 immediately. Such breaks are rare and are more likely to occur due to other work being carried out near the pipes.

Following this, try to minimise water usage (as suggested in section 5.2) until the problem is fixed.