



Solo Water

Catherine Hill Bay Water Utility

Home Owner's Manual

IMS-OPER-8312-SW



Table of Contents

1. INTRODUCTION	3
2. CONTACT NUMBERS	3
3. OUR WATER AND RECYCLED WATER SYSTEM	4
3.1. RECYCLED WATER SYSTEM.....	4
3.2. PLUMBING WITH OUR SYSTEM	4
4. HOW A PRESSURE SEWERAGE SYSTEMS WORK	6
4.1. PARTS OF THE PRESSURE SEWERAGE SYSTEM LOCATED ON YOUR PROPERTY	6
4.2. RECYCLING PROCESS	6
4.3. SYSTEM OPERATION	7
5. THINGS TO CONSIDER	8
5.1. SPECIAL OR CRITICAL WATER USE REQUIREMENTS.....	8
5.2. ACCESS TO YOUR PROPERTY	8
5.3. POWER OUTAGE.....	8
5.4. CROSS CONNECTION	8
5.5. LEAK DETECTION.....	9
5.6. ITEMS THAT SHOULD <u>NOT</u> BE DISPOSED OF TO SEWER.....	10
5.7. OVERFLOW RELIEF GULLY.....	12
5.8. EXCAVATIONS AND BUILDING	12
6. COMMUNITY EDUCATION ON RECYCLED WATER	14
6.1. WHAT YOU CAN USE RECYCLED FOR	14
6.2. WHAT NOT TO DO	14
6.3. BENEFITS OF RECYCLED WATER	15
6.4. GUIDANCE ON USING RECYCLED WATER FOR IRRIGATION.....	15
6.5. COUNCIL WATER RESTRICTIONS	16
6.6. CROSS CONNECTIONS & RECYCLED WATER PLUMBING COMPLIANCE	17
7. RESPONSIBILITY AND REPAIRS	19
7.1. WARRANTIES / REPAIR COSTS.....	19
7.2. SERVICE ARRANGEMENTS	19
7.3. BACKFLOW PREVENTION DEVICES ON CUSTOMER SIDE OF METER.....	20
8. FREQUENTLY ASKED QUESTIONS	21
8.1. EXTENSIONS TO YOUR HOUSE	21
8.2. PSU SERVICE LINE.....	21
8.3. LANDSCAPING	21
8.4. GARAGES, CAR PARKS, DECKING AND GARDEN SHEDS?	22
8.5. SOLO WATER EASEMENTS.....	22
8.6. WHY CAN'T RAINWATER OR STORMWATER GO INTO THE PRESSURE SEWER SYSTEM? .	22
8.7. WHY MUST I KEEP HEAVY WEIGHTS OFF THE LID?.....	23
8.8. CAN I INSTALL A SWIMMING POOL OR LARGE SPA?	23
8.9. WHAT HAPPENS IF I HAVE A PARTY AT MY HOUSE?	24
8.10. WHAT DO I DO IF I THINK A PIPE HAS BURST?.....	24
8.11. WHAT TO DO IF YOU HAVE DIRTY WATER?	24

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).

In an emergency	000
Faults, Issues and Outages	1300 7656 98, then press 1
Account Enquires	1300 7656 98, then press 2
General Enquires and Feedback	Solo Water Website http://www.solowater.com.au/ 1300 7656 98, then press 3
Email	info@solowater.com.au

Faults and Outages 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 and your call will be forwarded or a message will be sent to one of our local operators.

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.

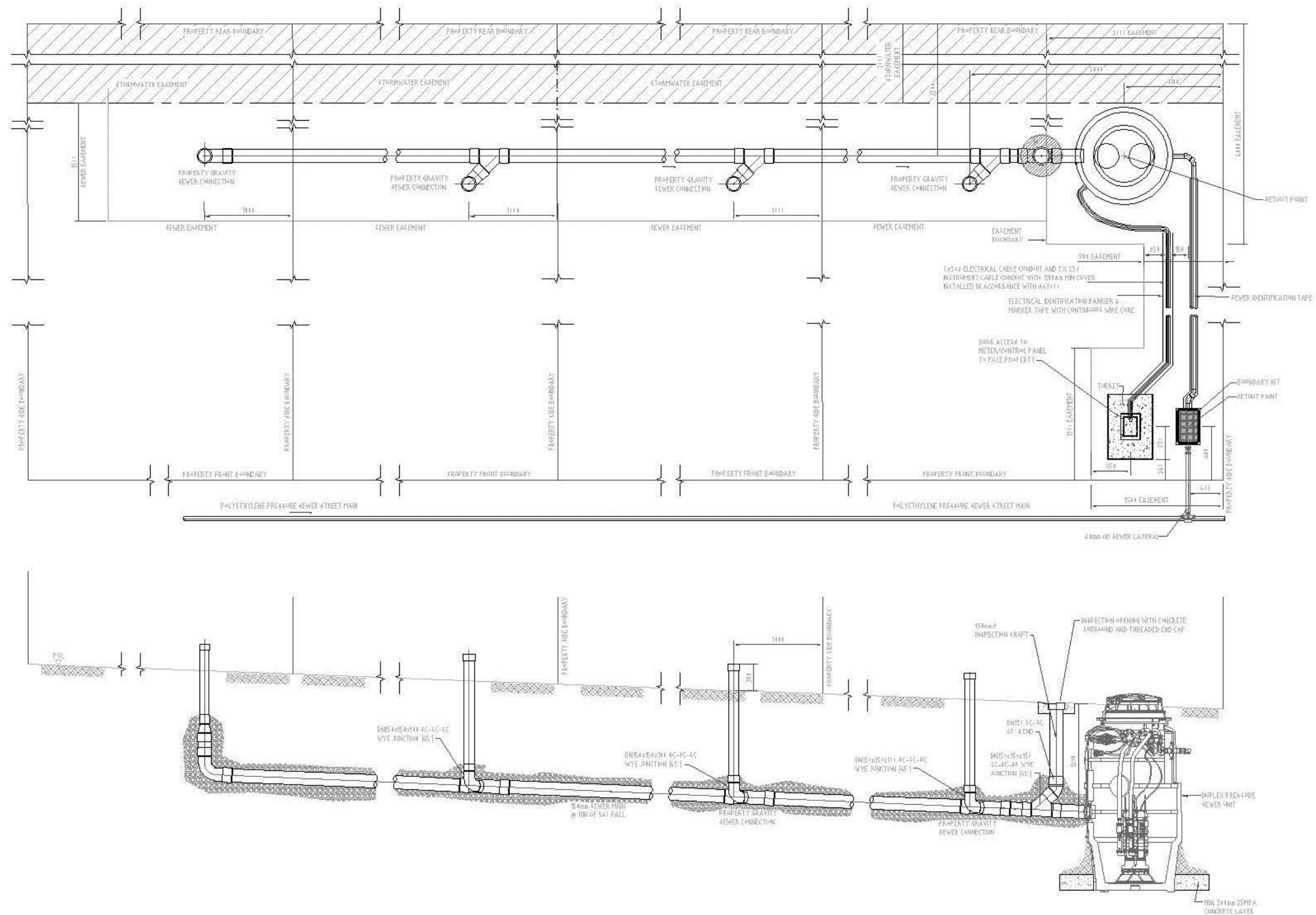
If you are supplied with recycled water, Section 5.8 - *Community Education on Recycled Water* sets out the standard requirements for its safe use. Please ensure that you take the time to familiarise yourselves with this information as Solo Water cannot be held responsible if the recycled water is used 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 alongside the property discharge line connecting the pressure sewer tank to the control pillar located in a 1500mm x 1500mm easement.
4. **The control pillar/turret**, 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 personnel.
5. **The customer sanitary drain** is connected to an existing point of connection with our wastewater system (the customer connection point) on the lot by the builder/owner's 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 very high-quality recycled water suitable for domestic reuse as per the Australian Guidelines for Water Recycling (2006). The advanced recycled water treatment process incorporates a combination of preventative measures, multiple treatment barriers and Critical Control Points (CCP's) within the system design and operation to ensure that the product is continually fit for purpose.

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, irrigation, car washing, outdoor cleaning and cold-water supply to clothes 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. Special or Critical Water Use Requirements

If you have any special or critical water usage requirements that may impact on your health, safety or quality of life, e.g. like a home dialysis machine, you must contact us and let us know so we can make special arrangements.

If you have special water needs that are essential for your personal health and safety, like a home dialysis machine, you will be required to install your own suitable onsite storage and treatment device so that you are guaranteed the availability of water even if our water system is down for maintenance or has a fault.

5.2. 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).

5.3. 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.

5.4. Cross Connection

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

Before you move into your newly built house, Solo Water with your plumber will conduct an inspection of your plumbing fixtures to make sure there is no cross connection of the recycled water and the drinking water. A recycled

water meter will only be issued when Solo Water are satisfied that there are no cross connections.

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 of compliance.

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.

If you have purchased an existing property, Solo Water requires that a cross connection check be undertaken as part of your conveyancing/change of ownership process to certify there are no cross connections with the drinking water and recycled water supplies at the property. This is to protect you against potential unauthorised and non-compliant plumbing works that may have been undertaken by previous occupants.

5.5. 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.

You will be charged for all water that flows through your meter and it is your responsibility as homeowner to ensure there are no leaks in your household plumbing system.

To check your property for leaks you should periodically undertake the following basic leak detection procedure:

1. Turn off all the water fixtures, taps and appliances within your property
2. Check your water meters to see if they are ticking over.

Note: leaks can be very slow and the dial might only move very slowly so you may need to take a photo or write down the reading and come back later to check if the dial has moved.

3. If the dial has moved there is likely to be a leak on your property. If the dial is moving quickly the leak is significant.
4. Contact a licenced plumber who will come to your property to locate and repair the leak and issue a Certificate of Compliance.

It is important that you are proactive with this and identify any leaks on your property as these can be very costly when left for a long period of time.

Solo Water has implemented a concealed leak policy (*IMS-OPER-A-8385-SW*) that outlines the financial assistance that may be offered to a customer that has experienced a concealed leak on their property and to provide customers with the criteria required to apply for a concealed leak rebate. The Concealed Leak Policy will be available on the Solo Water website which

details the eligibility criteria and application and assessment process for financial assistance.

5.6. Items That Should NOT be Disposed of to Sewer

Everything that you pour down the drain or sink or flush down the toilet goes through the sewerage system. It is important to remember that some things should not enter the sewer system.

Flushing inappropriate items down the sewer will lead to damage of assets, blockages, overflows and environmental and public health impacts.

Some of the worst causes are fats, oils and grease. After they are washed down the sink, they quickly cool and solidify, sticking to the walls of the pipes causing blockages or forming into “fat-bergs” within the pressure sewer tanks. If they mix with other items, such as wet wipes, sanitary products, facial tissues, dental floss and kitchen towels then blockages and build-up can become more serious.

Another major cause of blockages and raw sewage overflows in modern sewerage system is caused by customers disposing of wet wipes and other foreign objects to sewer.

Wet wipes include baby wipes, toilet wipes, body wipes, personal hygiene wipes and cleaning wipes. They are often marketed as “flushable” or “biodegradable”, but instead of disintegrating after flushing, like toilet paper, the synthetic wet wipes do not break down, instead contributing to major blockages in our sewer network.

“Flushable wipes” are not actually flushable!! So please do not dispose of flushable wipes and solid waste to sewer, it needs to go in the bin.

It is very important that the following items are **NOT** disposed of to the sewer:

- “Flushable” cleaning and/or wet wipes
- Cooking oils and fats
- Pool and spa water
- Cleaning chemicals
- Condoms
- Glass
- Cigarette butts
- Metal ornamental filings
- Bones, fish and seafood shells
- Nappies, socks, rags or clothes
- Sanitary napkins or tampons
- Dental Floss
- Paper towels and tissues
- Stormwater or rainwater
- Plastic objects
- Stones, Goldfish stones
- Kitty litter
- Explosives
- Flammable materials
- Lubricating oil and/or grease
- Chemicals, insecticides or pesticides
- Paints or thinners
- Medicines

- Gasoline, diesel or fuels
- Any solid waste
- Building construction waste



All non-compatible items flushed into the sewer will be required to be manually "fished out" of the household sewer wells by our operations staff. Should this happen on the sewer well servicing your property our operations staff may conduct a door knock enquiry or install solids screening devices into the sewer at one or more household connections to determine the source of the non-compatible items.

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.

Fats, Oils and Grease

The following tips should be followed to help protect the sewer from unnecessary blockages due to fats, oils and grease.

What to do:

- Recycle used cooking oil or properly dispose of it by letting it cool and pouring it into a sealable container and placing the sealed container in the rubbish bin.
- Put food scraps into the rubbish bin and not in the sink.
- Wipe pots, pans and dishes with dry paper towels before washing and throw away the paper towels in the bin.
- Use a screen or catch basket over the drain when rinsing dishes or when peeling or cutting food. Throw any left-over scraps in the trash.

What not to do:

- Don't pour cooking oil, grease, pan drippings or sauces down the sink or toilet.

- Don't use kitchen sponge to scrape plates or to clean greasy or oily dishes. Using a kitchen sponge to wipe the pot, pans and dishes will still put the fats, oils and grease down the drain.

5.7. Overflow Relief Gully

One of the main sources of illegal stormwater infiltration to sewer is via the Overflow Relief Gully (ORG).

An ORG is an emergency overflow point so that if there is a blockage of the sewer pipes on your property the raw sewage water will overflow out of the ORG instead of inside your house.

Many people don't know this and think an ORG is a stormwater inlet but it is not. It is illegal to drain stormwater to an ORG.

An ORG must always be higher than surrounding ground and lower than the floor level of the house and landscaping work should never fill around an ORG to make it the low point.

Below is an example of a compliant and non-complaint ORG:



5.8. Excavations and Building

Before undertaking any excavation works, it's important that you check for underground pipes and cable networks that could be in the area. Anyone working on public and private property has an obligation to protect the water and sewerage assets from damage.

Warning: There is an underground 240 Volt power supply to each pressure sewer unit. This power supply runs from the street to the control pillar with two 50mm power conduits running alongside the property discharge line connecting the pressure sewer tank to the control pillar.

Before you excavate a site:

- Visit Before You Dig Australia (www.byda.com.au) and lodge your enquiry online. This service is a free service, which should be used by anyone undertaking works that may impact on underground assets (such as earthmoving, excavations or building).

- If you are not registered, you will need to do this.
- Once registered, you will need to provide details of your project, including start and expected end date, type of work and the location of your project.
- This will allow Before You Dig Australia to provide you with the information to suit your project.

Any excavation within 1 metre of a Solo Water asset is to be undertaken using hand tools only. Solo Water may recover the costs of repair incurred from deliberate or accidental damage to water supply and sewer infrastructure.

6. COMMUNITY EDUCATION ON RECYCLED WATER

The recycled water that is supplied to your property in the purple pipe system is of the highest quality and is treated through multiple barrier disinfection processes to ensure the water is always safe to use for the intended uses.

6.1. What You Can Use Recycled For

Recycled water supplied to customers can be used for.

- Toilet flushing,
- Irrigation (see Section 6.4 below)
- Car, boat and bin washing,
- Wash down of external surfaces like walls and paths,
- Cold water supply to clothes washing machines.

Recycled water is a safe and environmentally viable alternative to potable drinking water for these uses. The correct usage of recycled water, rather than drinking water, can significantly reduce drinking water use by around 50% reducing the demand on the storage dams and drinking water networks and improving water security for all.

Drinking water will also be supplied in your bathroom and kitchen for washing and cooking. 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.

Although unlikely, if any impacts are observed from using recycled water for one of the approved uses, you should change to using drinking water for that use and contact us immediately so we can investigate.

6.2. What Not To Do

General precautions should be taken when using recycled water. Please adhere to normal hygiene practices when using recycled water and avoid consumption, ingestion, immersion and excessive contact with recycled water.

As a further safeguard if you have wounds, cuts and abrasions it is recommended to avoid all contact with recycled water and if contact does occur to clean wounds with antiseptic solution. If you consume large quantities of recycled water or suspect an illness due to using recycled water we recommend you seek medical attention and advise us as soon as possible so we can investigate.

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 or showering
- Indoor household cleaning

- Cooking or other kitchen/food preparation purposes
- Swimming pools and spas
- Evaporative cooling systems/coolers
- Children's water toys
- Aquariums or water supply to any pets and animals
- Irrigation of salt sensitive crops.

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. But the general rule is if the use is not specifically listed in Section 6.1 you must use drinking water for that use.

6.3. 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.

6.4. Guidance on Using Recycled Water for Irrigation

Recycled Water Salinity

Recycled Water has a slightly higher salinity than drinking water. At CHB the salinity of the Drinking Water is generally around 160 to 180 mg/L Total Dissolved Solids (TDS), while the recycled water salinity is generally around 500 to 750 mg/L Total Dissolved Solids (TDS).

For the majority of lawns and plants irrigation with recycled water with a TDS of 750 mg/L will not result in any impacts. However certain salt sensitive crops may be impacted if irrigated with recycled water.

It is recommended that all salt sensitive crops are irrigated using drinking water or if you suspect a salinity impact on a particular plant is occurring, irrigate that plant using drinking water.

Given the coastal environment at CHB it is likely that salt sensitive crops will not survive regardless of the type of irrigation water used due to the ocean spray drift that occurs at CHB. If salinity impacts are still observed when irrigating with drinking water it is likely that the specific plant will not survive the coastal environment and a different plant should be selected in its place.

These impacts are typically more pronounced during extended dry hot weather or if you are using a drip irrigation system on your property. We recommend that you do not use drip irrigation systems with recycle water if salt impacts are being observed and that extra attention be paid during extended warm weather.

Consult your landscaper or nursery if you require more information on the salt tolerance of the plants growing in your garden.

Over Irrigation

Recycled water contains trace amounts of free nutrients including nitrogen and phosphorus that are naturally present in recycled water. These nutrients help your plants grow and will reduce the need for you to apply chemical fertilisers.

To avoid these trace amounts of nutrients from ending up in local waterways you need to be careful not to over irrigate recycled water such that runoff occurs. We recommend the use of irrigation controllers that automatically switch off the irrigation system after a preprogramed time interval.

Over irrigation also costs you money because you have to pay for all water that passes through your water meter so any water that runs off and is not taken up by plants is a waste of money.

Soil Amendments

Given the coastal environment at CHB the natural soils are predominately sand. Sandy soils generally contain minimal amounts of nutrients and organic matter required to assist with plant growth. It is likely that your lawn and garden areas will from time to time require application of soil improvements like gypsum, lime and organic matter to maintain the soil in a healthy state suitable for plant growth.

Generally, you should not need to apply any chemical fertilisers containing nitrogen and phosphorus as the recycled water contains trace amount of these nutrients free of charge. Some plants or lawns with very high nutrient requirements may require a small amount of nitrogen or phosphorus additives. If this is required we recommend using only organic sources of nitrogen and phosphorus.

We recommend you consult your landscaper or nursery in regard to any specific soil conditions required to grow the crops on your property.

Vegetables Consumed Raw

The recycled water supplied at CHB is of the highest quality and is suitable under the Australian Guidelines for Water Recycling (2006) to be used on vegetables consumed raw or with minimal processing.

However, as a further safeguard NSW Health recommend people do not irrigate vegetables consumed raw or with minimal processing using recycled water.

If you have any concerns over this please use drinking water to irrigate vegetables on your property that are consumed raw with minimal processing.

6.5. Council Water Restrictions

Water restrictions generally do not apply when using recycled water.

At CHB, we source our drinking water from Central Coast Council (CCC), hence CCC water restrictions apply to the drinking water system at CHB. Solo Water is required to enforce CCC water restriction policies that are in place and we are required to issue penalty notices to our customers for all non-compliances.

When Central Coast Council water restrictions are in force please make sure you are using recycled water for the restricted uses like irrigation, or you may be issued with a penalty notice.

6.6. Cross Connections & Recycled Water Plumbing Compliance

Solo Water will ensure that there are no cross connections between the drinking water and recycled water pipes out in the street. We checked this and undertook cross connection testing when the subdivision was originally constructed and we will ensure all future work is undertaken in a controlled manner to ensure no future cross connections.

Cross connections that occur downstream of the meter on your property are your responsibility as the homeowner. When your house was originally constructed your household plumbing was checked for compliance with the National Construction Code and AS3500 by your licenced plumber and LMCC before you moved in. Solo Water also undertook some additional checks at this stage.

As the homeowner you must ensure that all future plumbing work is undertaken by a licenced plumber who will issue you with a Certificate of Compliance for the work, which will guarantee workmanship and allow follow up of any faulty plumbing work undertaken.

To verify there are no cross connections on your property you should periodically undertake a basic cross connection test as per the following basic procedure:

1. Shut off the drinking water supply to your property at the meter.
 - a. Note: the drinking water meter is generally blue coloured and located closest to your property boundary.
2. Go inside and open all drinking water taps for at least 30 seconds to check if there is a constant flow of water.
 - a. Note: there may initially be a small flow of water until the drinking water line drain out after the meter is shut off.
 - b. If there is a sustained flow from water from a drinking water tap when the drinking water meter is shut off, then there is more than likely a cross connection on your property.
3. Repeat to check every drinking water tap on your property.

If you are not comfortable undertaking this test yourself, please contact a licence plumber who can undertake the cross-connection test on your behalf.

If you suspect there is a cross connection contact Solo Water immediately so we can assist with the investigation.

You also need to notify LMCC of the cross connection as they are the authority responsible for plumbing compliance at CHB.

You will also need to contact a licenced plumber to rectify the plumbing on your property and issue a Certificate of Compliance for the rectified plumbing work.

When you go to sell your house, we will require the purchaser to engage a licenced plumber to verify the recycled water plumbing at your lot is compliant to the Australian Plumbing Standard AS3500 and there are no cross connections with the drinking water supply.

This compliance assessment needs to be undertaken as part of the building inspection process and a copy of the Recycled Water Plumbing Certificate of Compliance must be provided to Solo Water and the Plumbing Regulator (at CHB this is LMCC) prior to the settlement date.

This is to protect the new purchaser of the house to ensure there are no cross connections between the recycled water and drinking water systems on the day they move in.

7. 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 homeowner 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.

Solo Water is responsible for all repairs on our side of the customer connection point, and the home owner is responsible for all repairs on their side of the customer connection point.

7.1. 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).
- 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.

7.2. 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 intend to conduct a sewer screening of your property for non-compliant items
- f) 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.

7.3. Backflow Prevention Devices on Customer Side of Meter

Backflow prevention refers to the control of potentially harmful contaminants entering into our drinking water or recycled water supply from cross connections in a customer's property or from the backflow of contaminants into the water supply system.

All customer water meters on Solo Water schemes include a dual check valve integrated into the water meter. The dual check valve prevents water from the customer side of the meter from back flowing into the water network and potentially contaminating the water in the mains in the street.

For some customers that have installed a device/water fixture with a potential medium or high cross-connection hazard rating on their property (e.g. a bidet or a douche hose fitting provided in the toilet for cleaning) an additional backflow prevention device will be required to further guarantee protection of water quality in the street.

The customer is responsible for the installation, maintenance and testing of the site containment backflow prevention device. An approved test certification report for these devices must be completed and submitted annually to Solo Water at full cost to the customer.

Please call Solo Water on 1300 7656 98 If you are unsure about whether additional backflow prevention device will be required on your property.

8. FREQUENTLY ASKED QUESTIONS

8.1. Extensions to Your House

Solo Water must be consulted prior to the commencement of any construction or extensions to your property. The same rules apply to extensions that apply to your house, i.e. recycled water must be used to flush toilets, laundry washing machine cold water and irrigation.

Please email Solo Water at info@solowater.com.au or visit the Solo Water website for additional information.

8.2. PSU Service Line

The PSU 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 side boundary 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 land scaping.

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.

Before undertaking any excavation works, it's important that you check for underground pipes and cable networks that could be in the area. Anyone working on public and private property has an obligation to protect the water and sewerage assets from damage.

The Before You Dig Australia service can assist you in identifying and locating all utility infrastructure within your property.

Please contact Before You Dig Australia (www.byda.com.au) and a professional services locator prior to undertaking any excavation activities on your property, including installation of fences. Refer to Section 5.8 for further details.

8.3. Landscaping

Minor landscaping over the PSU 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.

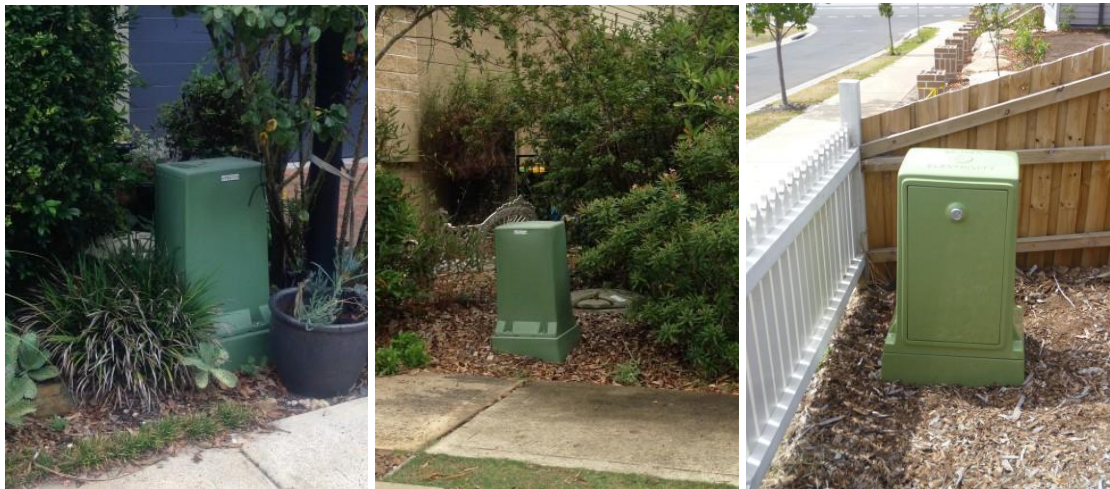


Figure 9.1 Example of Suitable landscaping arrangements

8.4. 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.com.au for further assistance.

8.5. Solo Water Easements

Solo Water easements are a legal right of access for Solo Water to perform maintenance on our above ground and below ground assets. In general, all Solo Water easements on your property should have minimal landscaping and be kept at the natural ground level. Any and all built structures in an easement, whether they be approved or unapproved, may be potentially damaged during maintenance works. The cost of removal or repairs of a built structure within an easement remains the responsibility of the owner of the property.

8.6. Why can't Rainwater or Stormwater 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.

8.7. Why Must I Keep Heavy Weights Off The Lid?

The lid of the pressure sewer tank is a specifically engineered 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.

8.8. 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 draining 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 salt and chlorine concentrations in pool water can be a nuisance to our recycled water treatment systems and can increase the salinity of the recycled water.

To minimise the potential impacts the following rules apply to all pools:

- Only non-backwashable cartridge type filters are permitted to be used, thus avoiding the need to manage pool filter backwash.
- No connections to sewer what so ever, thus avoiding the excess pool water being pumped to sewer during wet weather.
- No pool water is to ever be discharged to a sewerage Overflow Relief Gully (ORG). If you hire a pool maintenance contractor they need to be made aware of these requirements.
- A pit, channel or drain must be provided near the pool to take all pool water. Any pool discharge/drainage must also meet Lake Macquarie City Council requirements.
- A drinking water tap adjacent to the pool for filling. Note that recycled water can not be used for filling pools.
- Construction of the pool outside of the zone of influence to all Solo Water assets.

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.

8.9. 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.

8.10. 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 5.3) until the problem is fixed.

8.11. What to do if you have Dirty Water?

On occasion, water discolouration and air entrapment may occur within your pipes after maintenance activities.

Here's what to do if you have some coloured water or entrapped air in your household pipes after a water outage or maintenance works in your area:

- Slowly turn on each tap in the house, one at a time, to allow any air in the pipes to escape.
- Leave taps running until the water is clear before using your hot water system, washing machine and dishwasher.
- Use any discoloured water on your plants or garden.

The water should run clear after 5 minutes of flushing your water from your cold-water taps.

If the water doesn't clear or improve after flushing then please call us on 1300 SOLO WU (7656 98).