



RECYCLED WATER FOR IRRIGATION INSTALLATION GUIDE

Guidelines for use and installation





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Services

This recycled water guide has been made available for plumbers and managers of irrigation systems when connecting irrigation systems to the Council's recycled water network.

The guide aims to ensure proper installation of the recycled water service and a clear guide for the irrigation use of Charles Sturt recycled water.

All recycled water plumbing installations and connections must comply with AS/NZS 3500 and be performed by licensed registered plumbing contractors.



Information

The collection, treatment, storage and distribution of recycled stormwater is a new initiative for Charles Sturt. Recycled water will assist the city to become more water efficient, reduce the city's reliance on the Murray Darling basin, reduce pollution of local marine estuaries and ensure green open spaces for residents.

Recycled water is defined as any non-potable reclaimed, recycled or reused water. This may include recycled stormwater, native groundwater or any combination of these waters.

Charles Sturt produces two classes of 'fit for purpose' recycled water.

Recycled water available throughout the network has been treated to a standard fit for the purposes of irrigation and other limited uses.

Recycled water available to homes in the new St Clair

residential development undergoes further treatment, creating a higher standard of recycled water, which can be used for toilet flushing, filling ornamental ponds, garden watering, car washing and other limited uses.

Recycled water must be managed differently to drinking water.

The objective of this guideline is to ensure correct identification, installation and auditing of a recycled water irrigation system, to ensure no accidental interconnection with drinking water services and to prevent improper use of recycled water.

Recycled Water treated to fit for purpose irrigation uses must only be connected to irrigation systems.

Charles Sturt Recycled Water Mains

Recycled water is delivered to the City through a network of dedicated mains systems. The system is clearly identified by its purple or lilac colour.

A recycled water irrigation connection can be provided to a property by the property owner/plumber/irrigation manager lodging a completed application form with Council for connection to the recycled water network. Application

forms can be found on our website at www.charlessturt.sa.gov.au/RecycledWater, can be collected from Council's office or can be provided by our Water Business Unit on 8408 1111.

Water Pressure

The water pressure available through Council's recycled water mains is different to that provided by SA Water's drinking

water mains. This may affect irrigation systems and should be considered when designing any irrigation system planned for connection to Council's recycled water network. For water pressure information relating to the property you wish to connect, please contact Council on 8408 1111.



Water Meter Assemblies



Council will install a purple recycled water meter at the property once a customer has met Council requirements for a Recycled Water Irrigation connection.

Water meters can be made available either above ground or within an approved below ground identified service pit. The most appropriate type of connection for your purposes can be discussed with our Water Business staff.

The meter connection will allow a customer to connect their irrigation service after

all Council requirements for connection to an irrigation service have been met.

The recycled water service will be locked into the closed position until Council have received confirmation of a successful cross connection/separation audit. Plumbers are required to provide Council a copy of the Certificate of Compliance and completed Office of Technical Regulator Separation Test before Council are able to make the connection live.

Metered drinking water supplies located within the property boundary will require an approved testable backflow prevention device installed by a licensed registered plumber. Backflow prevention device installations must comply with AS/NZS 3500.1 and should be tested annually.

Any alteration to existing recycled water irrigation connections requires approval by Council.

On the Property

Under no circumstances is there to be interconnection between the recycled water service and any drinking water service.

All plumbing or irrigation work within the property, including recycled water plumbing, is to be undertaken by a licensed/registered plumber and

a final Certificate of Compliance issued to the Office of Technical Regulator within 10 days of works being completed. Council should also be forwarded a copy of the Certificate of Compliance within 28 days of works being completed and prior to any recycled water connection being made live.

All pipework, products and methods of construction and connection used in the installation of a recycled water services shall comply with any Australian Standard relevant to the service and especially AS/NZS 3500.



Irrigation Infrastructure Identification

All pipes, fittings, pipe sleeves and identification tape used in a Customers Irrigation system, and to be connected to the recycled water network, must be clearly and permanently identified **'RECYCLED WATER – DO NOT DRINK'** and coloured in accordance with AS2700, being no darker than P24 jacaranda or P12 purple and no lighter than

P23 lilac. External metallic stand pipes must also be coloured as above.

Where pipes are not integrally coloured purple, identification may be achieved by means of close fitting durable purple coloured sleeving, netting or spirally wrapped tape. All buried pipes must have identification tape installed on top of the recycled water pipe, running longitudinally and fastened to the pipe

at not more than 3 metre intervals. This identification tape is designed to ensure safety when digging in the vicinity of recycled water pipes to prevent rupture.

The irrigation area must be fitted with external signage including symbols and writing which identify **'RECYCLED WATER – NOT FOR DRINKING'**.

All signage should meet the requirements of AS 1319-1994.



External hose tap outlets shall comply with the following:

- They shall be clearly marked with either a warning sign or

prohibition sign in accordance with AS1319.

- They shall be of a type that has a removable handle except where the outlet is installed

1200mm or more above finished surface level.

- They shall be coloured, powder coated purple

Commissioning & Auditing of Irrigation System

A final auditing inspection will be conducted by Council prior to a purple meter being commissioned for supply of recycled water. The installing plumber must

contact Council on 8408 1829 to book this inspection.

The following commissioning process must be followed and clearly

detailed in the Certificate of Compliance and Cross Connection/Separation Test issued by the installing plumber.

COMMISSIONING PROCEDURE - RECYCLED WATER SYSTEM

Check drinking water meter is turned on. Turn on all drinking water outlets and non-drinking water outlets (including WCs and irrigation) internal and external to ensure all outlets are operational.

Turn off drinking water meter and disconnect the non-drinking line from drinking water supply and cap the drinking water pipe line.

Turn on the drinking water meter and check that all drinking water outlets are operating and the non-drinking water outlets including irrigation system runs dry establishing separation. If any other taps run dry they are connected to non-drinking water supply. (Lilac colour and signage required)

If separation complies with above connect the non-drinking line to the non-drinking water supply and continue with the cross connection separation test.

Turn off the drinking water supply and turn on the non-drinking water supply.

Turn on all internal outlets, all drinking water outlets will run dry, irrigation system will be operational and outlets that continue to run will be on non-drinking water, and are required to be coloured lilac and have appropriate warning sign.

After all outlets have run dry, flush toilets, they should refill if connected to non-drinking water. Toilet cisterns that are connected to non-drinking water must have lilac isolating valve with an appropriate warning sign.

Turn on all external outlets, all drinking water outlets will run dry, irrigation system will be operational and outlets that continue to run will be on non-drinking water, and are required to be coloured lilac and have appropriate warning sign.

Turn off the non-drinking supply and turn on drinking water supply.

Check that all internal outlets are now operating including appliances and that the cisterns do not refill if connected to non-drinking water. Irrigation system and external non-drinking water outlets connected to non-drinking water will run dry and only drinking water outlets will operate.

If an evaporative air-conditioning unit is installed, turn the unit on and check that the drinking water meter is registering usage.

Turn on the non-drinking water supply to complete audit. Please ensure a testable backflow prevention device is fitted at the drinking water meter.





What can recycled water be used for?

Recycled water can be used only for the purposes of irrigation and any other approved purposes as identified in a customer's Recycled Water Supply Agreement or Recycled Water Irrigation Management Plan.

Recycled water must not be used for:

- Drinking (human or animal consumption)
- Cooking or other kitchen purposes
- Personal washing, such as baths, showers, hand basins and bidets.
- Evaporative coolers
- Clothes washing
- Indoor household cleaning
- Swimming pools and spas
- Recreation activities involving water contact (ie children playing under sprinkler)
- Washing companion animals


Who do I call if I have an emergency with my recycled water connections?

If the problem exists on the property side of the meter you should contact a licensed/registered plumber to resolve any plumbing problems.

If the problem exists at the

meter or on Council's side of the meter, please contact Council on 8408 1111.

If you experience any issues with your drinking water supply, please contact SA Water on 1300 650 950.



Where can I find more information about recycled water?

Department of Health
www.health.sa.gov.au
08 8226 6000

Environmental Protection Authority
www.epa.sa.gov.au
08 8204 2004

Plumbing Industry of South Australia
www.piasa.com.au
08 8292 4000

Department of Environment, Water and Natural Resource
www.environment.sa.gov.au
08 8204 1910

Essential Services Commission of South Australia
www.escosa.sa.gov.au
1800 633 592

Energy & Water Ombudsman
1800 665 165



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