

Salisbury Water

Information Brochure 2021/22



Salisbury **Water Quality Disclaimer***

- The Salisbury Water data is a general summary of the water quality parameters of the recycled water from the Daniel MAR Scheme
- Salisbury Water quality may vary dependent on the scheme, season, sampling frequency and events out of the City of Salisbury's control
- Salisbury Water is supplied on a fit for purpose and is not intended for drinking purposes or external contact under any circumstance.
- Information correct as at the 30 June 2021
- All figures provided are indicative and to be used as a guide only
- SA Water data obtained from the 2019-20 Drinking Water Quality Report – average of the North Metro System

Salisbury Water

Salisbury Water is the term City of Salisbury uses for its recycled water. Salisbury Water is primarily recycled stormwater and native ground water. The stormwater run-off is captured in one of the various wetlands throughout the City of Salisbury and is cleansed naturally as it travels through the wetland.

Currently, the City has over 150km of recycled water pipe network to supply its customers with Salisbury Water. The water is not being supplied to existing residential properties throughout the City of Salisbury due to the high expense of retrofitting a property with the Salisbury Water pipework.

Salisbury Water is only supplied to residential properties in new residential subdivisions where the property developer has installed the recycled water infrastructure as part of the development.

Aquifer Storage and Recovery (ASR)

Aquifer Storage and Recovery (ASR) is the process of injecting water into a suitable underground aquifer for storage and later reuse. It can also be a means of artificially recharging depleted underground water supplies.

ASR is a modification of the natural system that has been occurring for millions of years. Natural recharge occurs by filtration of rainwater through the soil profile, past the vegetation root zone and down to permeable rocks known as aquifers. Aquifers can store large quantities of water without losses from evaporation and with reduced risk of contamination.

During the high rainfall period in winter, excess stormwater, filtered and cleansed by the wetlands, is pumped into the aquifer which is up to 220m below the ground. During the dry summer, the water is recovered as needed to supply Salisbury Water customers including local schools, sports fields and industry. The use of Salisbury Water eliminates the demand on mains water for irrigation helping to conserve water and reducing costs.



City of Salisbury Managed Aquifer Recharge (MAR)

Swales: (Shallow Grassy Drainage Channels)
Flows through swales are slowed allowing solids to settle out and the soil to be soaked.
Green areas can be sustained with irrigation.

Wet Inlet Zone:
Usually includes a gross pollutant (litter or trash) trap sediment pond and reed beds to assist in filtering suspended solids.

Emergent Macrophyte Zone:
Reeds growing in shallow water reduce flow velocities, act as filters, take up nutrients and provide food and habitat for aquatic species.

Riparian Zone:
Surrounding vegetation is an important aspect of the wetland and can assist in the take up of pollutants and provides a windbreak to reduce wave action.

Open water zone:
Areas of deeper open water allow sunlight to disinfect bacteria and provide habitat for fish and birds.

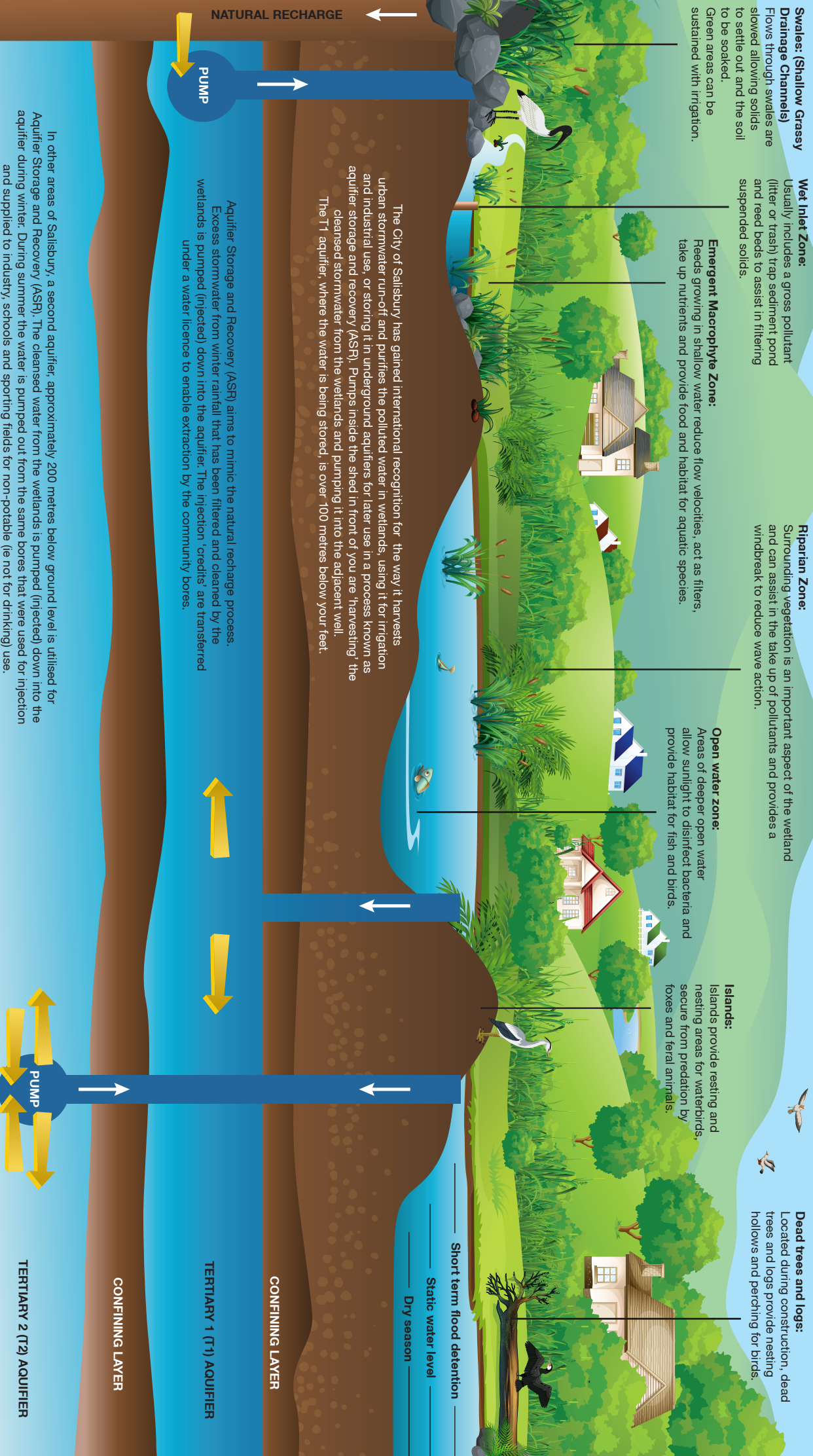
Islands:
Islands provide resting and nesting areas for waterbirds, secure from predation by foxes and feral animals.

Dead trees and logs:
Located during construction, dead trees and logs provide nesting hollows and perching for birds.

The City of Salisbury has gained international recognition for the way it harvests urban stormwater run-off and purifies the polluted water in wetlands, using it for irrigation and industrial use, or storing it in underground aquifers for later use in a process known as aquifer storage and recovery (ASR). Pumps inside the shed in front of you are 'harvesting' the cleansed stormwater from the wetlands and pumping it into the adjacent well.
The T1 aquifer, where the water is being stored, is over 100 metres below your feet.

Aquifer Storage and Recovery (ASR) aims to mimic the natural recharge process. Excess stormwater from winter rainfall that has been filtered and cleaned by the wetlands is pumped (injected) down into the aquifer. The injection 'credits' are transferred under a water licence to enable extraction by the community bores.

In other areas of Salisbury, a second aquifer, approximately 200 metres below ground level is utilised for Aquifer Storage and Recovery (ASR). The cleansed water from the wetlands is pumped (injected) down into the aquifer during winter. During summer the water is pumped out from the same bores that were used for injection and supplied to industry, schools and sporting fields for non-potable (ie not for drinking) use.



Prices & Quality of Salisbury Water

The pricing of Salisbury Water is set by Council in accordance with Section 188 of the Local Government Act 1999 and the guidelines set out by the Essential Services Commission of South Australia (ESCOSA). It takes into account the costs of building, operating and renewing assets required to capture, treat and distribute Salisbury Water to consumers. The standard usage charge for 2021/22 is \$2.78 per kilolitre.

Salisbury Water is treated to a standard that is satisfactory for its intended use as defined by the National Stormwater Guidelines.

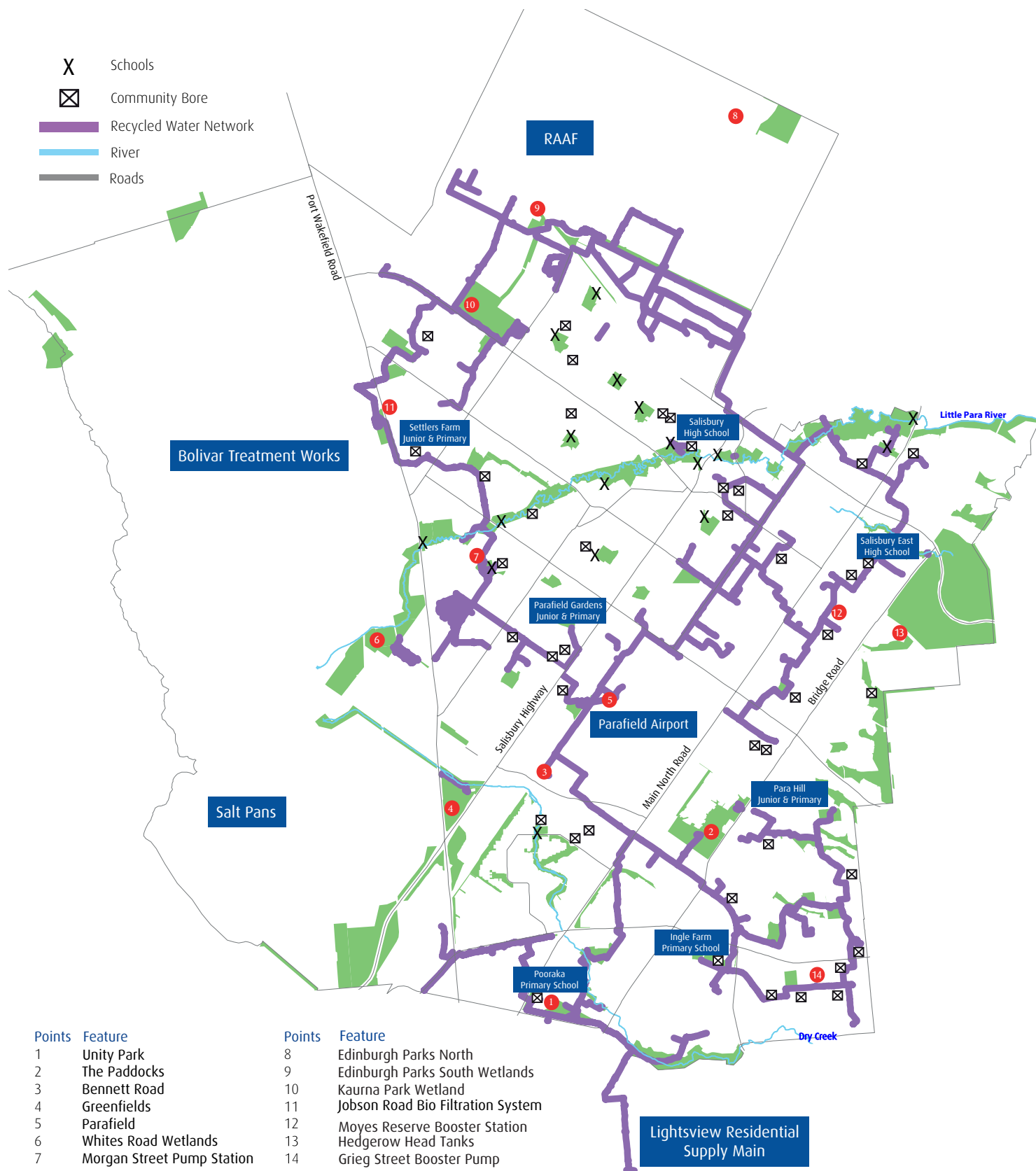
Salisbury Water can be used for:

- Toilet flushing
- Washing cars
- Garden irrigation
- Filling ornamental ponds
- Some industrial/commercial uses

PARAMETER	Units	Salisbury Water* Average 2019/20		MAR Licence Criteria Source Water	Typical Mains Water (Average SA Water 2019/20)
		Average	No of Samples		
Chlorine Residual Free	mg/L	0.2	44	NA	0.4
E.Coli	per cfu/100mL	3	44	1000	0
pH	pH units	7.7	44	6.5 - 9	7.4
Total Dissolved Solids	mg/L	729	44	1200	329
Turbidity	NTU	6.3	44	20	<0.1
Iron - Total	mg/L	1.5	5	10	0.00085
Manganese - Total	mg/L	0.1	5	10	0.0005
Total Nitrogen	mg/L	0.4	5	25	-
Total Phosphorus as P	mg/L	0.1	5	12	-
Suspended Solids	mg/L	5.2	5	20	NA

Salisbury Water Distribution Network

Salisbury has invested in establishing a dedicated 'purple pipe' distribution network to carry Salisbury Water to parks and reserves, schools, industry and some residential developments across the City.



Salisbury Water Contacts

For further information on Salisbury Water, please contact the Salisbury Water Business Unit.

Salisbury Water Business Unit

City of Salisbury
34 Church Street
Salisbury SA 5108
P: 8406 8222
www.salisbury.sa.gov.au/salisburywater

Further information on recycled water can be found through the following contacts:

Essential Services Commission of South Australia (ESCOSA)

P: 1800 633 592
www.escosa.sa.gov.au

Environmental Protection Agency (EPA)

P: 08 8204 2004
www.epa.sa.gov.au

Office of the Technical Regulator (OTR)

P: 08 8226 5500
www.sa.gov.au

Department of Environment and Water (DEW)

P: 08 8204 1910
www.environment.sa.gov.au





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