



Unitywater

Serving you today, investing in tomorrow.

# Recycled Water Performance Report

2018-2019



MF-004-002  
MF RACK No. 2

100A-001

100A-002

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# Message from the CEO

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This Recycled Water Performance Report for 2018-19 provides detailed information about the quality of recycled water provided to customers in our region.

At Unitywater, we take our compliance responsibilities seriously. This report demonstrates our ongoing commitment to our customers that the recycled water provided meets the requirements of the *Water Supply (Safety and Reliability) Act 2008* and *Public Health Act 2005*.

We also continue to focus on the sustainability and the security of water resources for our communities. In a country susceptible to drought, recycled water is an increasingly valuable alternative for a range of residential, commercial and industrial purposes.

I trust that the information provides insight into our commitment to recycled water quality standards and raises awareness on the range of benefits of recycled water reuse and thank you for your interest.

If you have any questions or feedback on the content of this report, please call our Customer Contact Centre on 1300 086 489.



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George Theo  
Chief Executive Officer

# Introduction

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Recycled water is supplied for customer reuse throughout the Unitywater supply region and may be used for a number of approved purposes, including residential, commercial, municipal and industrial applications.

Unitywater monitors the water quality of each recycled water scheme. This report provides a summary of recycled water quality performance to assist our customers in managing their on-site activities.

If you have any questions regarding recycled water, please visit [unitywater.com/business/Recycled-Water](http://unitywater.com/business/Recycled-Water)

## Key Facts



12

*schemes supplying recycled water*



5

*classes supplied: A+, A, B, C, D*



35

*fixed site commercial, industrial and municipal customers*



116

*tanker carrier customers*



1199

*residential customers*



RECYCLED  
WATER

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WATER

# Approved uses of recycled water

Unitywater supplies five classes of recycled water: Class A+, Class A, Class B, Class C and Class D. Each class is of a different quality and is restricted to certain uses.

Below is a summary list of approved uses by classification.

For further information on approved uses, please visit [unitywater.com/business/Recycled-Water](http://unitywater.com/business/Recycled-Water)

Use	Class A+	Class A	Class B	Class C	Class D
Irrigation of residential gardens and lawns - above ground	✓	—	—	—	—
Irrigation of residential gardens and lawns - below ground	✓	✓	—	—	—
Filling or topping up of residential "non-drinking water" rainwater tanks - NOT PERMITTED	—	—	—	—	—
Dust suppression, compaction	✓	✓	✓ <sup>a</sup>	—	—
Watering parks, playing fields, footpaths and roadside plants	✓	✓	✓ <sup>a</sup>	✓ <sup>a</sup>	—
Filling fenced ponds, lagoons and dams (not used for recreational purposes)	✓	✓	—	—	—
Filling non-fenced ponds, lagoons and dams (not used for recreational purposes)	✓	—	—	—	—
Road works	✓	✓	✓ <sup>a</sup>	—	—
Washing cars	✓	—	—	—	—
Washing animals (except pigs)	✓	—	—	—	—
Hydraulic testing of sewer infrastructure	✓	✓	✓	✓	—
Irrigation of landscaping on construction sites	✓	✓	✓ <sup>a</sup>	—	—
Filling or topping up of swimming pools or spas NOT PERMITTED	—	—	—	—	—
Irrigating sugar cane destined for non-edible purposes (fixed site users only)	✓	✓	✓	✓ <sup>a</sup>	✓ <sup>a</sup>
Irrigating turf (fixed site users only)	✓	✓	✓	✓ <sup>a</sup>	✓ <sup>a</sup>

✓ listed use is approved for this class of recycled water

— listed use not approved for this class of recycled water

<sup>a</sup> use is accepted only under strict site controls including site management plans

## Recycled water scheme information

Scheme	Class available Fixed-site customers	Class available Tanker fill station	Tanker fill station location
Brendale	Class B	Class B	3/26 Cribb Road
Coolum	Class B	Class B	Lot 2 Marsh Road
Kawana	Class B	Class B	Lot 101 Main Drive
Landsborough	Not supplied	Class B	Lot 10 Forestry Road
Maleny	Class B	Not supplied	Not supplied
Maroochydore	Class B / Class D	Class B	38 Commercial Road
Murrumba Downs	Class B	Class B	Lot 2 Bickle Road
Nambour	Class B / Class D	Class B	Lot 1 Bli Bli Road
Noosa	Class A	Class A	Lot 14 Wallum Lane
Redcliffe	Class C	Not supplied	Not supplied
South Caboolture	Class A+	Class A+	67 Weier Rd, Morayfield Mewett St, Caboolture Caboolture Regional Aquatic Centre, Burpengary
Woodford	Class A	Class A	Neurum Road, adjacent Woodford Showgrounds

## Units of measurement definitions

Units/Parameter	Definition
MPN/100mL	Most Probable Number per 100 millilitre
CFU/100mL	Colony Forming Units per 100 millilitre
mg/L	milligrams per litre
µS/cm	Microsiemens per centimetre
pH units	pH units
NTU	Nephelometric Turbidity Units
Nitrogen (ammonia)	Ammoniacal nitrogen (NH <sub>3</sub> -N) is a measure for the amount of ammonia found in effluent.
Nitrogen (oxidised)	The sum of nitrate-nitrogen (NO <sub>3</sub> -N) and nitrite-nitrogen (NO <sub>2</sub> -N) only
Nitrogen (total)	The sum of nitrate-nitrogen (NO <sub>3</sub> -N), nitrite-nitrogen (NO <sub>2</sub> -N), ammonia-nitrogen (NH <sub>3</sub> -N) and organically bound nitrogen (N <sub>org</sub> -N)
Phosphorous (total)	The sum of three forms of phosphorous species: reactive, condensed and organic
Median	The middle value of the dataset. <i>E. coli</i> results are reported as a median in this performance report

## Recycled water class definition

Class	Classification/Requirement For an annual rolling limit, 95% of the samples reviewed must contain less than the following amounts of <i>Escherichia coli</i> .
A+	1 cfu/100mL or MPN/100mL
A	10 cfu/100mL or MPN/100mL
B	100 cfu/100mL or MPN/100mL
C	1000 cfu/100mL or MPN/100mL
D	10000 cfu/100mL or MPN/100mL

## Brendale Sewage Treatment Plant

Fixed site and tanker customers Class B			
Parameter	Units	Number of tests	Average
<i>E. coli</i>	MPN/100mL	55 <sup>b</sup>	<1*
Conductivity	µS/cm	52	725
Nitrogen (ammonia)	mg/L	53	0.7
Nitrogen (oxidised)	mg/L	53	1.8
Nitrogen (total)	mg/L	53	3.9
pH	pH Units	105	7.4
Phosphorous (total)	mg/L	53	0.6
Suspended solids	mg/L	54	6

<sup>b</sup> *E. coli* is sampled weekly as per *Public Health Regulation 2018*, unless the recycled water scheme is isolated (e.g. due to planned maintenance)

\*Median value

## Coolum Sewage Treatment Plant

Fixed site and tanker customers Class B			
Parameter	Units	Number of tests	Average
<i>E. coli</i>	MPN/100mL	53 <sup>b</sup>	4*
Conductivity	µS/cm	51	813
Nitrogen (ammonia)	mg/L	52	1.4
Nitrogen (oxidised)	mg/L	52	1
Nitrogen (total)	mg/L	52	3.4
pH	pH Units	51	7.6
Phosphorous (total)	mg/L	52	0.6
Suspended solids	mg/L	51	4

<sup>b</sup> *E. coli* is sampled weekly as per *Public Health Regulation 2018*, unless the recycled water scheme is isolated (e.g. due to planned maintenance)

\*Median value

## Kawana Sewage Treatment Plant

Parameter	Units	Fixed site customers Class B		Tanker customers Class B	
		Number of tests	Average	Number of tests	Average
<b><i>E. coli</i></b>	MPN/100mL	50 <sup>b</sup>	19*	36 <sup>b</sup>	1*
<b>Conductivity</b>	µS/cm	50	1121	47	1115
<b>Nitrogen (ammonia)</b>	mg/L	50	6.1	47	4.9
<b>Nitrogen (oxidised)</b>	mg/L	50	1.4	47	2.8
<b>Nitrogen (total)</b>	mg/L	50	9	47	9.1
<b>pH</b>	pH Units	50	7.1	47	7.1
<b>Phosphorous (total)</b>	mg/L	50	2	47	2.1
<b>Suspended solids</b>	mg/L	51	8	48	9

<sup>b</sup> *E. coli* is sampled weekly as per *Public Health Regulation 2018*, unless the recycled water scheme is isolated (e.g. due to planned maintenance)

\*Median value

## Landsborough Sewage Treatment Plant

		Tanker customers Class B	
Parameter	Units	Number of tests	Average
<i>E. coli</i>	MPN/100mL	54 <sup>b</sup>	<1*
<b>Conductivity</b>	µS/cm	51	538
<b>Nitrogen (ammonia)</b>	mg/L	51	0.7
<b>Nitrogen (oxidised)</b>	mg/L	51	0.9
<b>Nitrogen (total)</b>	mg/L	51	2.9
<b>pH</b>	pH Units	51	7.5
<b>Phosphorous (total)</b>	mg/L	51	1.7
<b>Suspended solids</b>	mg/L	52	9

<sup>b</sup> *E. coli* is sampled weekly as per *Public Health Regulation 2018*, unless the recycled water scheme is isolated (e.g. due to planned maintenance)

\*Median value

## Maleny Sewage Treatment Plant

		Fixed site customers Class B	
Parameter	Units	Number of tests	Average
<i>E. coli</i>	MPN/100mL	53 <sup>b</sup>	<1*
<b>Conductivity</b>	µS/cm	52	468
<b>Nitrogen (ammonia)</b>	mg/L	52	<0.05
<b>Nitrogen (oxidised)</b>	mg/L	52	2.1
<b>Nitrogen (total)</b>	mg/L	52	2.6
<b>pH</b>	pH Units	52	7.2
<b>Phosphorous (total)</b>	mg/L	52	0.2
<b>Suspended solids</b>	mg/L	52	2

<sup>b</sup> *E. coli* is sampled weekly as per *Public Health Regulation 2018*, unless the recycled water scheme is isolated (e.g. due to planned maintenance)

\*Median value

## Maroochydore Sewage Treatment Plant

Parameter	Units	Fixed site and tanker customers Class B		Private land irrigators Class D	
		Number of tests	Average	Number of tests	Average
<b><i>E. coli</i></b>	MPN/100mL	51 <sup>b</sup>	5*	53 <sup>b</sup>	220*
<b>Conductivity</b>	µS/cm	51	2100	51	2100
<b>Nitrogen (ammonia)</b>	mg/L	51	<0.05	51	<0.05
<b>Nitrogen (oxidised)</b>	mg/L	51	2.4	51	2.4
<b>Nitrogen (total)</b>	mg/L	51	3.5	51	3.5
<b>pH</b>	pH Units	51	7.2	51	7.2
<b>Phosphorous (total)</b>	mg/L	51	0.2	51	0.2
<b>Suspended solids</b>	mg/L	51	9	51	9

<sup>b</sup> *E. coli* is sampled weekly as per *Public Health Regulation 2018*, unless the recycled water scheme is isolated (e.g. due to planned maintenance)

\*Median value

## Murrumba Downs Sewage Treatment Plant

Fixed site and tanker customers Class B			
Parameter	Units	Number of tests	Average
<i>E. coli</i>	MPN/100mL	54 <sup>b</sup>	1*
Conductivity	µS/cm	54	819
Nitrogen (ammonia)	mg/L	54	0.1
Nitrogen (oxidised)	mg/L	54	<0.5
Nitrogen (total)	mg/L	54	1.5
pH	pH Units	54	7.8
Phosphorous (total)	mg/L	54	0.5
Suspended solids	mg/L	54	3

<sup>b</sup> *E. coli* is sampled weekly as per *Public Health Regulation 2018*, unless the recycled water scheme is isolated (e.g. due to planned maintenance)

\*Median value

## Nambour Sewage Treatment Plant

Parameter	Units	Fixed site and tanker customers Class B		Private land irrigators Class D	
		Number of tests	Average	Number of tests	Average
<i>E. coli</i>	MPN/100mL	49 <sup>b</sup>	<1*	47 <sup>b</sup>	250*
<b>Conductivity</b>	µS/cm	48	804	48	804
<b>Nitrogen (ammonia)</b>	mg/L	49	0.1	49	0.1
<b>Nitrogen (oxidised)</b>	mg/L	49	0.5	49	0.5
<b>Nitrogen (total)</b>	mg/L	49	1.5	49	1.5
<b>pH</b>	pH Units	48	7.6	48	7.6
<b>Phosphorous (total)</b>	mg/L	49	0.2	49	0.2
<b>Suspended solids</b>	mg/L	48	3	48	3

<sup>b</sup> *E. coli* is sampled weekly as per *Public Health Regulation 2018*, unless the recycled water scheme is isolated (e.g. due to planned maintenance)

\*Median value

## Noosa Sewage Treatment Plant

Fixed site and tanker customers Class A			
Parameter	Units	Number of tests	Average
<i>E. coli</i>	MPN/100mL	50 <sup>b</sup>	<1*
Conductivity	µS/cm	49	1598
Nitrogen (ammonia)	mg/L	49	0.2
Nitrogen (oxidised)	mg/L	49	3.7
Nitrogen (total)	mg/L	49	4.7
pH	pH Units	49	7.7
Phosphorous (total)	mg/L	49	0.2
Suspended solids	mg/L	49	3.6

<sup>b</sup> *E. coli* is sampled weekly as per *Public Health Regulation 2018*, unless the recycled water scheme is isolated (e.g. due to planned maintenance)

\*Median value

## Redcliffe Sewage Treatment Plant

		Fixed site customers Class B	
Parameter	Units	Number of tests	Average
<i>E. coli</i>	MPN/100mL	52 <sup>b</sup>	<1*
<b>Conductivity</b>	µS/cm	53	1558
<b>Nitrogen (ammonia)</b>	mg/L	50	0.6
<b>Nitrogen (oxidised)</b>	mg/L	50	1.4
<b>Nitrogen (total)</b>	mg/L	50	3.1
<b>pH</b>	pH Units	53	7.2
<b>Phosphorous (total)</b>	mg/L	50	0.2
<b>Suspended solids</b>	mg/L	51	6

<sup>b</sup> *E. coli* is sampled weekly as per *Public Health Regulation 2018*, unless the recycled water scheme is isolated (e.g. due to planned maintenance)

\*Median value

## Woodford Sewage Treatment Plant

Fixed site and tanker customers Class A			
Parameter	Units	Number of tests	Average
<i>E. coli</i>	MPN/100mL	48 <sup>b</sup>	<1*
Conductivity	µS/cm	48	834
Nitrogen (ammonia)	mg/L	47	<0.05
Nitrogen (oxidised)	mg/L	47	2.9
Nitrogen (total)	mg/L	47	3.7
pH	pH Units	48	7.8
Phosphorous (total)	mg/L	47	0.6
Suspended solids	mg/L	48	3

<sup>b</sup> *E. coli* is sampled weekly as per *Public Health Regulation 2018*, unless the recycled water scheme is isolated (e.g. due to planned maintenance)

\*Median value

## South Caboolture Recycled Water Network

Commercial, industrial, municipal  
and residential customers  
Class A+

Parameter	Units	Number of tests	Average
<b><i>E. coli</i></b>	MPN/100mL	51 <sup>b</sup>	<1*
<b>Free chlorine</b>	µS/cm	253	0.2
<b>Total chlorine</b>	mg/L	253	0.7
<b>Conductivity</b>	uS/cm	253	296
<b>Turbidity</b>	NTU	253	0.2

<sup>b</sup> *E. coli* is sampled weekly as per *Public Health Regulation 2018*, unless the recycled water scheme is isolated (e.g. due to planned maintenance)

\*Median value



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Unitywater has certification to  
OH&S AS/NZS 4801:2001 Reg No 500000079  
Environmental ISO 14001:2015 Reg No 500000079  
Quality ISO 9001:2015 Reg No 500000079  
Food Safety ISO 22000:2018 Reg No 500000079

