

# QUEENSLAND WATER SERVICE PROVIDER

## WATER SERVICES PERFORMANCE REPORT 2022-23





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# 1. SUMMARY

Water Services provides water and wastewater products and services to the Townsville community, including the supply of potable water, the collection and processing of wastewater, and the supply of recycled water. Our aim is to be the best regional water service provider in Australia.

Water Services monitors its performance and reports annually to the Department of Regional Development, Manufacturing and Water (DRDMW) on key performance indicators.

Council's Water Services sections performance report for 2022/2023 provides important information about:

- Water and wastewater assets
- Production and demand for water and wastewater products
- Water security and reliability
- Financial costs for provision of water services
- Performance against customer service standards

# OVERVIEW

## Water Supply

Water Services Section provides water services to the community through three drinking water schemes:

- Townsville Drinking Water Scheme
- Paluma Township Drinking Water Scheme
- Giru / Cungulla Drinking Water Scheme.

To provide these services, the section operates and maintains 2 dams, 2 weirs, 4 water treatment plants, 27 water pumping stations, 41 reservoirs (water storage facilities) and over 2,800 km of water distribution mains.

The Townsville Drinking Water Scheme is the predominant scheme, supplying approximately 98% of all water connections in the Townsville region. The major water source for the Townsville Drinking Water Scheme is the Ross River Dam which stores and delivers water to the Douglas Water Treatment Plant. With a maximum capacity of approximately 233,000 megalitres, the Ross River Dam is the source for approximately 85% of Townsville's water supply. Paluma Dam is a smaller dam with a capacity of 11,000 megalitres and supplies the Townsville Drinking Water Scheme through the Northern Water Treatment Plant for distribution to the northern areas of the City.

During extended dry periods, if the water level in the Ross River Dam is low, supplementary water supply is sourced from the Burdekin Dam via the Haughton Irrigation Channel, Haughton Pipeline and pumping station. To supply the Giru/Cungulla Drinking Water Scheme, water is taken from the Haughton River and delivered to a small water treatment plant at Giru before distribution to Cungulla residents and to the Burdekin Shire Council for Giru residents.

To supply the Paluma Township Drinking Water Scheme, water is taken from a rainforest creek and treated through a Council owned and operated Water Treatment Plant to supply the Paluma Township population.

## WATER SERVICE IN TOWNSVILLE

# 2022/23 FAST FACTS



**176 ML**

highest daily water demand



**3**

drinking water supply schemes



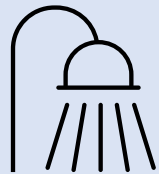
**2,801 KM**

of water mains



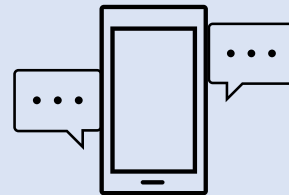
**\$93.25 M**

Spent on capital improvements



**24,506 ML**

of residential drinking water supplied to residents



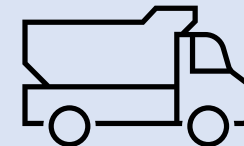
**0.20**

Total customer water complaints per 1,000 connections



**83,822**

residential properties connected



**\$2.56 B**

Replacement costs of Townsville's water assets

## Sewerage Services

Water Services collects and treats wastewater from across the Townsville Region. Wastewater is collected and transported by more than 1,600 kilometres of sewer main and over 195 pumping stations to 6 wastewater treatment plants on the mainland and Magnetic Island for treatment.

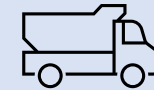
At some of our wastewater treatment plants, Water Services undertakes additional treatment processes to produce recycled water, which is used for irrigation purposes either onsite at wastewater treatment plants or for use as irrigation for open space areas or sporting fields.

Water Services has Quality and Environmental Management Systems in place to ensure public health and safety, environmental sustainability, and compliance with legislative and regulatory requirements. Water Services holds Environmental Licences for each of its sewage treatment plants and other critical operational assets in sewage collection system.

## WASTEWATER SERVICE IN TOWNSVILLE 2022/23 FAST FACTS



**73,145**  
connected properties



**\$1.50 B**  
replacement costs of Townsville's  
sewerage assets



**1,601 KM**  
of sewer mains



**\$34.82 M**  
spent on capital improvements



**6**  
wastewater treatment plants

## 2. EXPLANATION OF KEY PERFORMANCE INDICATOR GROUPS

### ‘1’ SERIES - GENERAL

The first series of Key Performance Indicators collect data on general service delivery in Queensland, including information on infrastructure for providing water or wastewater services, volumes of water sourced per reporting period by service providers, numbers of properties serviced, and volumes of water supplied to properties.

### ‘2’ SERIES - WATER SECURITY

The second series of Key Performance Indicators collates data on water security and how service providers ensure short- and long-term water supply to customers. Given the climatic variability in Queensland, service providers must commit to long-term planning to ensure the ongoing continuity of their supplies to customers. These indicators provide valuable information regarding water demand, water restrictions and water security, both now and into the future.

### ‘3’ SERIES - FINANCE

The third series of Key Performance Indicators provides data on service providers financial sustainability for the provision of water and wastewater services.

### ‘4’ SERIES - CUSTOMER

The fourth series of Key Performance Indicators provides data on water and wastewater charging and adopted customer service standards, including indicators relating to billing, mains breaks, incident response times, interruptions, and customer complaints.

# 3. GENERAL SERIES

## Key Findings

### Potable Water Supply

In 2022/23, Water Services produced 40,764ML of potable water from its treatment plants and processes during the financial year.

The highest single day demand for water within the 2022/23 financial year was 176ML. This demand is 8ML lower than last year's highest single day demand of 184ML.

### Sewage Collection and Treatment

In 2022/23, Water Services collected and treated approximately 22,000ML of sewage collected from residential, non-residential and non-trade waste sources. Approximately 19,000ML of this sewage was from residential Townsville properties. Trade waste customers contributed approximately 2,900ML of wastewater to the system.

The majority of wastewater was treated at Townsville's two largest treatment plants, Cleveland Bay Purification Plant and Mount Saint John Treatment Plant. After treating the wastewater across all plants, around 20,018ML of treated effluent was released to approved discharge points.

In 2022/23, Water Services produced approximately 1,600ML of recycled water, with the majority being reused for irrigation purposes either onsite at wastewater treatment plants or supplied for use as irrigation for open space areas or sporting fields.



## Results for General Series Table

SWIM CODE	KPI CODE	INDICATOR TITLE	TOWNSVILLE POTABLE	TOWNSVILLE NON-POTABLE	CLEVELAND BAY REUSE	CONDON REUSE	HORSESHOE BAY REUSE	MAGNETIC ISLAND REUSE	MOUNT ST JOHN REUSE	TOWNSVILLE WASTEWATER	TOWNSVILLE WSP-WIDE
AS2	QG1.1	Length water mains	2,781 km	4 km	4 km	3 km	3 km	1 km	5 km		2,801 km
AS5	QG1.2	Length sewerage mains and channels								1,601 km	1,601 km
AS4	QG1.3	Number sewage treatment plants								6 sewerage treatment plants	6 sewerage treatment plants
AS1	QG1.4a	Number water treatment plants: providing full treatment	4 water treatment plants								4 water treatment plants
AS47	QG1.4b	Capacity of water treatment plants	277 ML per day								277 ML per day
WA201	QG1.5	Maximum daily demand	178 ML								178 ML
WA74		Volume potable water produced/supplied into water supply system	40,764 ML								40,764 ML
AS48	QG1.7	Total drinking water storage volume	263 ML								263 ML
WA1	QG1.8	Volume water sourced: surface water	40,724 ML								40,724 ML
WA2	QG1.9a	Volume water sourced: groundwater	No groundwater sourced	No groundwater sourced							No groundwater sourced
WA45		Volume water sourced: imported	796 ML								796 ML
WA61	QG1.10	Volume water sourced: desalination marine water	No marine water sourced	No marine water sourced							No marine water sourced
WA26	QG1.11	Volume recycled sewage supplied: all			8 ML	569 ML	56 ML	124 ML	526 ML		1,285 ML
WA7	QG1.12	Volume water sourced	41,520 ML	12 ML	8 ML	569 ML	56 ML	125 ML	526 ML		42,818 ML
CS2	QG1.13	Connected residential properties: water	83,810 connections	12 connections							83,822 connections
CS3	QG1.14	Connected non-residential properties: water	4,923 connections	5 connections							4,928 connections
CS6	QG1.15	Connected residential properties: sewerage								73,145 connections	73,145 connections
CS7	QG1.16	Connected non-residential properties: sewerage								3,584 connections	3,584 connections
WA32	QG1.17a	Volume of potable water supplied - residential	24,506 ML								24,506 ML
WA91	QG1.17b	Volume of non-potable water supplied - residential		12 ML							12 ML
WA34	QG1.18a	Volume of potable water supplied - commercial, municipal, and industrial	9,934 ML								9,934 ML
WA92	QG1.18b	Volume of non-potable water supplied - commercial, municipal, and industrial									0 ML
WA36		Volume of non-revenue water	6,323 ML								6,323 ML
WF1	QG 1 .20	Total Full-Time Equivalent water and sewerage services employees									370 full time equivalent employees



## 4. WATER SECURITY SERIES

### Key Findings

Providing water security to Townsville is a priority of Townsville City Council. Water Services is committed to managing its water supply infrastructure on a long-term basis, to ensure a secure water supply for the community into the future.

Townsville City Council is progressing the Haughton Pipeline Stage 2 project which will provide an alternative supply source for the Ross River Dam through pumped supply from Burdekin River. Construction work on the Haughton Pipeline Duplication Stage 2 commenced in 2023.

To increase resilience of the Ross River Dam to Douglas Water Treatment Plant assets, Townsville City Council is progressing a project to construct a new pipeline between the assets. The project is scheduled for completion before the end of the 2023/24 financial year.

### Results for Water Security Series Table

SWIM CODE	KPI CODE	INDICATOR TITLE	TOWNSVILLE POTABLE	TOWNSVILLE NON-POTABLE	TOWNSVILLE WSP-WIDE
WS3	QG2.3	Available contingency supplies	Yes		Yes
WS11	QG2.10a	Water restriction duration: PWCM	248	248	365
WS12	QG2.10b	Water restriction duration: Level 1	0	0	0
WS13	QG2.10c	Water restriction duration: Level 2	117	117	117
WS14	QG2.10d	Water restriction duration: Level 3	0	0	0
WS15	QG2.10e	Water restriction duration: Level 4	0	0	0
WS16	QG2.10f	Water restriction duration: Level 5	0	0	0
WS17	QG2.11a	Has asset management planning been undertaken in the last 10 years?	Yes		Yes
WS18	QG2.11b	Has drought management planning been undertaken in the last 10 years?	Yes		Yes
WS19	QG2.11c	Has water demand forecasts been developed or reviewed in the last 5 years?	Yes		Yes
WS20	QG2.11d	Has assessment of key capacity constraints of water infrastructure been undertaken in last 10 years?	Yes		Yes
WS21	QG2.11e	Has the timing for potential future supply augmentation been assessed in the last 10 years?	Yes		Yes
WS22	QG2.12	Months water supply remaining as of at 30 June (KPI level)	Level 6 (60 months or greater)		Level 6 (60 months or greater)
WS23	QG2.13	Confidence water demand will be met: next 18 months	High		High
WS24	QG2.14	Confidence water demand will be met: next 5 years	High		High

## 5. FINANCE SERIES

### Key Findings

Revenue from water and wastewater operations equated to around \$214 million for the 2022/23 financial year, this is mostly derived from the retail supply of water to Townsville residents and businesses and from the supply of wastewater services to residential and non-residential customers in Townsville. In the 2022/23 financial year Townsville Water's total operational costs were around \$189 million, including depreciation and loan interest.

### Results for Finance Series Table

SWIM CODE	KPI CODE	INDICATOR TITLE	TOWNSVILLE WSP-WIDE
FN14	QG 3 .1	Total water supply capital expenditure	\$93,454,646
FN15	QG 3 .2	Total sewerage capital expenditure	\$34,821,244
FN26	QG 3 .3	Capital works grants - water	\$0.00
FN27	QG 3 .4	Capital works grants - sewerage	\$0.00
FN9	QG 3 .5	Nominal written-down replacement cost of fixed water supply assets	\$1,325,998,291
FN10	QG 3 .6	Nominal written-down replacement costs of fixed sewerage assets	\$931,349,760
FN74	QG 3 .7	Current replacement costs of fixed water supply assets	\$2,557,014,391
FN75	QG 3 .8	Current replacement costs of fixed sewerage assets	\$1,503,236,375
FN1	QG 3 .9	Total revenue - water	\$114,690,130
FN2	QG 3 .10	Total revenue - sewerage	\$99,857,853
FN11	QG 3 .11	Operating cost - water	\$753 per connection
FN12	QG 3 .12	Operating cost - sewerage	\$760 per connection
FN76	QG 3 .13	Annual maintenance costs water	\$59,446,582
FN77	QG 3 .14	Annual maintenance costs sewerage	\$49,200,602
FN78	QG 3 .15	Current cost depreciation - water	\$29,277,052
FN79	QG 3 .16	Current cost depreciation - sewerage	\$21,517,601
FN80	QG 3 .17	Previous 5-year average annual renewals expenditure - water	\$24,679,000
FN81	QG 3 .18	Previous 5-year average annual renewals expenditure - sewerage	\$13,595,000
FN82	QG 3 .19	Forecast 5-year average annual renewals expenditure - water	\$16,794,000
FN83	QG 3 .20	Forecast 5-year average annual renewals expenditure - sewerage	\$14,115,000

# 6. CUSTOMER SERIES

## Key Findings

### Pricing

The price of utility and other charges of Water Services are set annually by council. Water Services utilises a Full Cost Pricing Model which provides guidance on the prices that Water Services should charge for its products and services to cover its capital and operational costs as well as a return on its investments, which is delivered back to the council. For its residential water services, Council offers a choice between two options for water billing: the Standard Plan water billing option, and the Water Watchers water billing option. The Standard Plan billing option allows for the use of an allocation of water for a fixed charge, with an excess water charge applied for every kilolitre of water that is used over and above the allocation amount. The Water Watchers option includes a fixed service connection fee and, in addition to the service connection fee, customers pay for their actual water usage per kilolitre of water used.

In 2022/2023, the majority of customers in Townsville utilised the Standard Plan water billing option. The residential allocation for water under the Standard Plan is 772kL.

### Service Interruption

Water Services owns and maintains over 2,800 km of water distribution mains to supply water to the Townsville community. Mains breaks can be experienced due to aging infrastructure, expansion of soil, water pressure, or physical damage. During the 2022/2023 financial year, Water Services experienced 18 breaks per 100km of mains for Townsville potable water.

Water Services may need to interrupt water services at short notice at times to carry out work on its mains. This means that customers may experience a temporary unplanned loss of water supply on occasion. In 2022/2023, there were 1,371 properties affected by unplanned interruptions to the water supply during the year, which has reduced from the previous year's amount of 1,723.

Water Services owns and maintains over 1,600kms of sewer mains to collect and transport sewage to treatment plants for treatment. During the 2022/2023 financial year, there were 46 breaks and chokes per 100 km of sewer main, with 733 main breaks and chokes in total. This number has reduced compared to the previous reporting period.

### Response Times

Water Services has committed to responding to water and sewerage incidents, including water leaks, breaks and chokes, within 4 hours of advice of the incident being reported. This represents the time that it takes staff to attend on site to assess, or begin working on the issue, but may not include the time that it takes to restore the service or fix the issue. For water incidents, 93% of incidents during 2022/2023 were responded to within the targeted 4-hour time frame. For sewerage incidents, 90% of incidents during 2022/2023 were responded to within the targeted 4-hour time frame.

### Complaints

There were 26 formal complaints made in relation to water service and reliability, sewerage service and reliability, water restrictions, pricing, billing and accounts, and behaviour of staff. This equates to 0.29 complaints per 1,000 properties receiving water and sewerage services.

## Results for Customer Service Series Table

SWIM CODE	KPI CODE	INDICATOR TITLE	TOWNSVILLE POTABLE	TOWNSVILLE NON POTABLE	CLEVELAND BAY REUSE	CONDON REUSE	HORSESHOE BAY REUSE	MAGNETIC ISLAND REUSE	MOUNT ST JOHN REUSE	TOWNSVILLE SEWERAGE	TOWNSVILLE WSP- WIDE
PR3	QG 4.1	Fixed charge - water	\$899 per year	There is no fixed charge	Not Relevant to this scheme	Not Relevant to this scheme	Not Relevant to this scheme	Not Relevant to this scheme	Not Relevant to this scheme		\$899 per year
PR5	QG 4.1a	Fixed charge - water description	Per dwelling, lot, home unit or flat	There is no fixed charge	Not Relevant to this scheme	Not Relevant to this scheme	Not Relevant to this scheme	Not Relevant to this scheme	Not Relevant to this scheme		Per property, lot or connection
PR31	QG 4.2	Fixed charge - sewerage								\$806 per year	\$806 per year
PR40	QG 4.2a	Fixed charge - sewerage								Per property, home, unit, flat lot or dwelling	Per property, home, unit flat, lot or dwelling.
PR47	QG 4.3	Annual bill based on 200 kl/annum									\$1,705.00
PR48	QG 4.4	Typical residential bill									\$1,705.00
AS8	QG 4.5	Total water main breaks	18.06 per 100km water main	0	0	33.33 per 100km water main	0	0	0		17 per 100 km water main
AS39	QG 4.6	Total sewerage main breaks and chokes per 100 km								45	45
CS17	QG 4.7	Incidence of unplanned interruptions - water	15 per 1000 connections								15 per 1000 connections
CS66	QG 4.8	Percentage of water incident (bursts and leaks) responded to within the average response time detailed in customer service standards	93%								93%
CS65	QG 4.9	Percentage of sewerage incidents (including main breaks and chokes) responded to within the average response time detailed in customer service targets								90%	90%
CS9	QG 4.10	Water quality complaints	0	0	0	0	0	0	0		0 per 1000 connections per year
CS13	QG 4.11	Total water and sewerage complaints	0.20 per 1000 connections							0.10 per 1000 connections	0.29 per 1000 connections

# 7. CONCLUSION

In 2022/2023 Water Services maintained 100% compliance with Australian Drinking Water Guidelines (ADWG). During 2022/2023 the section continued to apply effective control and governance of assets to realise value through balancing risk, cost and performance.

The Water Services sections Customer Service Standards articulate measurable goals which Water Services aims to achieve, and which are reported annually to the Water Supply Regulator. In 2022/2023 Water Services maintains Customer Service standards in accordance with the requirements of the Water Supply (Safety and Reliability) Act 2008.



