Queensland Water Service Provider

PERFORMANCE REPORT 2020/2021 (FINANCIAL YEAR)

TOWNSVILLE WATER

City of Townsville

Contents

1. Summary

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

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

This report outlines Townsville Water's performance during the 2020/2021 financial year in four Key Performance Indicator Groups: General, Water Security, Customers, and Finance.

2. Overview

Water Supply

Townsville Water 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, Townsville Water operates and maintains 2 dams, 2 weirs, 4 water treatment plants, 27 water pumping stations, 41 reservoirs (water storage facilities) and over 2,600 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 delivers water to the Douglas Water Treatment Plant. With a maximum capacity of approximately 233,000 megalitres, the Ross River Dam supplies approximately 85% of Townsville's water. 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 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 an unnamed rainforest creek and treated to supply the Paluma Township population.

Water Supply in Townsville

2020/21 Fast Facts

Highest daily water demand

230 ML

3

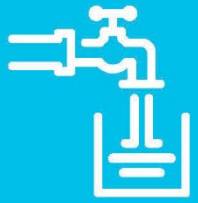
Drinking water supply schemes

2,664 km

of water mains

$33,578,538

spent on capital improvements



28,211 ML

of residential drinking water supplied to 229,385 residents

0.26

customer water quality complaints per 1,000 connections

87,440

properties connected

$956,536,000

replacement cost of Townsville's water assets

Sewerage Services

Townsville Water collects and treats wastewater from across the Townsville Region. Wastewater is collected and transported by more than 1,300 kilometres of sewer main and over 190 pumping stations to 6 wastewater treatment plants on the mainland and Magnetic Island for treatment.

At some wastewater treatment plants, Townsville Water 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.

Townsville Water has quality and environmental management systems in place to ensure public health and safety, environmental sustainability, and compliance with legislative and regulatory requirements. Townsville Water holds environmental licences for each of its sewage treatment plants and other aspects of its sewage collection system.

3. 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 collects 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 key performance 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 provider financial sustainability for water and wastewater services.

‘4’ SERIES – CUSTOMER

The fourth series of key performance indicators provides data on water and wastewater charging and customer standards, including indicators relating to billing, mains breaks, incident response times, interruptions, and customer complaints

4. General Series

Key Findings

Potable Water Supply

In 2020/21, Townsville Water produced over 45,000ML of potable water from its treatment plants and processes during the financial year.

The highest demand for water that Townsville Water experienced in Quarter 4 within the 2020/21 financial year was 230ML. Which is slightly higher than last year's 182ML.

Sewage Collection and Treatment

In 2020/21, Townsville Water collected and treated approximately 18,000ML of sewage were collected from residential, non-residential and non-trade waste sources. Approximately 15,000ML of sewage from residential Townsville properties. Trade waste customers contributed 2,431ML of wastewater, estimated from water usage.

The majority of wastewater was treated at Townsville Water's two largest treatment plants, Cleveland Bay Purification Plant and Mount Saint John Treatment Plant. After treating the wastewater across all plants, around 17,000ML of treated effluent was released to approved discharge points.

In 2020/21, Townsville Water Produced over 1,100ML 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	QG 1 .1	Length water mains	2,643 km	4,326 km	4 km	3 km	3 km	1 km	5 km		2,664 km
AS5	QG 1 .2	Length sewerage mains and channels								1,365 km	1,365 km
AS4	QG 1 .3	Number sewage treatment plants								6 sewerage treatment plants	6 sewage treatment plants
AS1	QG 1 .4a	Number water treatment plants: providing full treatment	4 water treatment plants								4 water treatment plants
AS47	QG 1 .4b	Capacity of water treatment plants	277 ML per day								277 ML per day
WA201	QG 1 .5	Maximum daily demand	206 ML								206 ML
WA74	QG 1 .6	Volume potable water produced/supplied into water supply system	45,767 ML								45,767 ML
AS48	QG 1 .7	Total drinking water storage volume	263 ML								263 ML
WA1	QG 1 .8	Volume water sourced: surface water	45,243 ML								45,243 ML
WA2	QG 1 .9a	Volume water sourced: groundwater	No groundwater sourced	No groundwater sourced							No groundwater sourced
WA45	QG 1 .9b	Volume water sourced: imported	1,022 ML								1,022 ML
WA61	QG 1.10	Volume water sourced: desalination marine water	No marine water sourced	No marine water sourced							No marine water sourced
WA26	QG 1.11	Volume recycled sewage supplied: all			37 ML	726 ML	64 ML	183 ML	345 ML		1,357 ML
WA7	QG 1.12	Volume water sourced	45,999 ML	11 ML	37 ML	726 ML	64 ML	183 ML	345 ML		47,634 ML
CS2	QG 1.13	Connected residential properties: water	82,542 connections	0.02 connections							82,558 connections
CS3	QG 1.14	Connected non-residential properties: water	4,882 connections								4,882 connections
CS6	QG 1.15	Connected residential properties: sewerage								72,266 connections	72,266 connections
CS7	QG 1 .16	Connected non-residential properties: sewerage								3,552 connections	3,552 connections
WA32	QG 1 .17a	Volume of potable water supplied - residential	28,210 ML								28,210 connections
WA91	QG 1 .17b	Volume of non-potable water supplied - residential		11 ML							11 ML
WA34	QG 1 .18a	Volume of potable water supplied - commercial, municipal, and industrial	12,130 ML								12,30 ML
WA92	QG 1 .18b	Volume of non-potable water supplied - commercial, municipal, and industrial									0 ML
WA36	QG 1 .19	Volume of non-revenue water	5,426 ML								5,426 ML
WF1	QG 1 .20	Total Full-Time Equivalent water and sewerage services employees									296 full time equivalent employees

5. Water Security Series

Key Findings

Providing water security to Townsville is a priority of Townsville City Council. Townsville Water 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.

Council is progressing the Haughton Pipeline Duplication project which will provide an alternative supply source for the Ross River Dam through pumped supply from Burdekin River. Construction work on Stage 2 of the Haughton Pipeline Duplication is expected to commence in mid to late 2022.

Results for Waste Security Series Table

SWIM CODE	KPI CODE	INDICATOR TITLE	TOWNSVILLE POTABLE	TOWNSVILLE NON-POTABLE	TOWNSVILLE WSP-WIDE
WS3	QG 2 .1	Available contingency supplies	Yes		Yes
WS11	QG 2 .2	Water restriction duration: PWCM	1095		365
WS12	QG 2 .3	Water restriction duration: Level 1	0	0	0
WS13	QG 2 .4	Water restriction duration: Level 2	0	0	0
WS14	QG 2 .5	Water restriction duration: Level 3	0	0	0
WS15	QG 2 .6	Water restriction duration: Level 4	0	0	0
WS16	QG 2 .7	Water restriction duration: Level 5	0	0	0
WS17	QG 2 .9	Has asset management planning been undertaken in the last 10 years?	Yes		Yes
WS18		Has drought management planning been undertaken in the last 10 years?	Yes		Yes
WS19		Has water demand forecasts been developed or reviewed in the last 5 years?	Yes		Yes
WS20		Has assessment of key capacity constraints of water infrastructure been undertaken in last 10 years?	Yes		Yes
WS21		Has the timing for potential future supply augmentation been assessed in the last 10 years?	Yes		Yes
WS22		Months water supply remaining as of at 30 June (KPI level)	6		6
WS23		Confidence water demand will be met: next 18 months	High		High
WS24		Confidence water demand will be met: next 5 years	High		High

6. Finance Series

Key Findings

Revenue from water and wastewater operations equated to $263 million for the 2020/21 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 2020/21 financial year Townsville Water's total operational costs were $134 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	$33,578.54
FN15	QG 3 .2	Total sewerage capital expenditure	$17,178.44
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	$956,536.00
FN10	QG 3 .6	Nominal written-down replacement costs of fixed sewerage assets	$683,655.00
FN74	QG 3 .7	Current replacement costs of fixed water supply assets	$1,869,555.00
FN75	QG 3 .8	Current replacement costs of fixed sewerage assets	$1,095,752.00
FN1	QG 3 .9	Total revenue - water	$107,655.49
FN2	QG 3 .10	Total revenue - sewerage	$96,781.68
FN11	QG 3 .11	Operating cost - water	$703 per connection
FN12	QG 3 .12	Operating cost - sewerage	$665 per connection
FN76	QG 3 .13	Annual maintenance costs water	$51,776.00
FN77	QG 3 .14	Annual maintenance costs sewerage	$43,876.00
FN78	QG 3 .15	Current cost depreciation - water	$22,217.90
FN79	QG 3 .16	Current cost depreciation - sewerage	$18,071.89
FN80	QG 3 .17	Previous 5-year average annual renewals expenditure - water	$15,005.00
FN81	QG 3 .18	Previous 5-year average annual renewals expenditure - sewerage	$9,826.00
FN82	QG 3 .19	Forecast 5-year average annual renewals expenditure - water	$31,529.00
FN83	QG 3 .20	Forecast 5-year average annual renewals expenditure - sewerage	$10,776.00

7. Customer Series

Key Findings

Pricing

The price of utility and other charges of Townsville Water are set annually by Council. Townsville Water utilises a full cost pricing model, which provides guidance on the prices that Townsville Water 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, Townsville Water 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. With the Water Watchers option, a fixed service connection fee applies and, in addition to the service connection fee, customers pay for their actual water usage per kilolitre of water used.

In 2020/2021, the majority of customers in Townsville chose the Standard Plan water billing option. The residential bill for water under the Standard Plan is $823 per year, which includes a water allocation of 772kL.

Service Interruption

Townsville Water owns and maintains over 2,600 kms of water distribution mains to supply water to the Townsville community. Mains breaks can be experienced due to aging infrastructure, expansion and of soil, water pressure, or physical damage. During the 2020/2021 financial year, Townsville Water experienced 21 breaks per 100km of mains.

Townsville Water must interrupt water services at short notice at times to carry out work on its mains. This means that customers may experience a loss of water supply on occasion. In 2020/2021, there were approximately 1,900 properties affected by unplanned interruptions to the water supply during the year. This equates to around 23 properties experiencing interruptions to supply for every 1,000 properties.

Townsville Water owns and maintains over 1,365kms of sewer mains to collect and transport sewage to treatment plants for treatment. During the 2020/2021 financial year, there were 54 breaks and chokes per 100 km of sewer main, with 743 main breaks and chokes in total. This number has gone up compared to previous years, as this has now includes all sewage pump stations.

Response Times

Townsville Water has committed to responding to water and sewerage incidents, including water leaks, breaks and chokes, within four hours of advice of the incident being reported. This represents the time that it takes staff of Townsville Water 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, 95% of incidents during 2020/2021 were responded to within the targeted 4-hour time frame. For sewerage incidents, 87% of incidents during 2020/2021 were responded to within the targeted four-hour time frame.

Complaints

Townsville Water received 23 formal complaints about water quality during the financial year. Most of the complaints were regarding the high Blue Green Algae cell counts in the Ross River Dam and additional constraints being placed on the treatment process at Doulas Water Treatment Plant which resulted in residents experiencing some aesthetic issues leading to a yellow/brown colour in the water. There were 44 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 0.76 complaints per 1,000 properties receiving water and sewerage services.

Results for Customer 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	COMMENTS
PR3	QG 4.1	Fixed charge – water	$823 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		$823.00	
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, home, unit, flat lot or dwelling	
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									$1,629.00	
PR48	QG 4 .4	Typical residential bill									$1,629.00	
AS8	QG 4 .5	Total water main breaks	21.77 per 100 km water main	0	0	0	0	0	0		21.77 per 100 km water main	
AS39	QG 4 .6	Total sewerage main breaks and chokes per 100 km								54	54	Value reported includes pump chokes as per the KPI Definition Guide
CS17	QG 4 .7	Incidence of unplanned interruptions - water	23 per 1000 connections								23 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	95%								95%	
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								87	87%	
CS9	QG 4 .10	Water quality complaints	0	0	0	0	0	0	0		0 per 1000 connections	
CS13	QG 4 .11	Total water and sewerage complaints	0.70 per 1000 connections							0.08 per 1000 connections	0.76 per 1000 connections	

8. Conclusion

During 2020/2021 Townsville Water continued to apply effective control and governance of assets to realise value through balancing risk, cost and performance.

After a review in 2020/2021 it was established that Townsville Water maintains Customer Service Standards in accordance with the requirements of the Water Supply (Safety and Reliability) Act 2008.

Townsville Water's Customer Service Standards articulate measurable goals which Townsville Water aims to achieve, and which are reported on annually to the Water Supply Regulator.

TOWNSVILLE WATER

City of Townsville