QUEENSLAND WATER SERVICE PROVIDER

Performance Report

2018-2019

TOWNSVILLE WATER

Townsville

TOWNSVILLE CITY COUNCIL

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Cover Photo - Cleveland Bay Purification Plant

Summary

Townsville Water is committed to consistently providing drinking water and sewerage services that meet customer, legislative and regulatory requirements. Townsville Water monitors its performance and reports annually to the Queensland Department of Natural Resources, Mines and Energy on a number of key performance indicators nominated by the Department.

This Performance Report outlines Townsville Water's performance during the 2018/2019 financial year in four Key Performance Indicator Groups: General, Water Security, Customers, and Finance.

During the financial year, Townsville Water faced a number of challenges to the provision of its drinking water and sewerage services. In February 2018, following significant rainfall, water restriction were eased to Level 2. At this time Ross River Dam filled to over 90% capacity. In February 2019 Townsville experienced the largest rainfall event to have occurred over the Townsville catchment in 120 years. Following this event Level 2 water restrictions eased with the introduction to Water Conservation Measures.

Purpose of this Performance Report

As a drinking water and sewerage service provider under the Water Supply (Safety and Reliability) Act 2008, Townsville Water are required to prepare this annual report on its performance against a number of key performance indicators nominated by the Queensland Department of Natural Resources, Mines and Energy.

Townsville Water is committed to transparency and accountability of its performance, and it will publish this Performance Report on council's website, to promote free and easy access by Townsville Water's customers and the community, and to meet legislative requirements.

The Queensland Department of Natural Resources, Mines and Energy will use the information supplied within this Performance Report to compare the performance of water service providers across the State of Queensland.

Overview of Townsville Water's Operations and Services

Townsville Water is a significant business activity of the Townsville City Council, providing water and wastewater services to the Townsville community. It supplies potable water, collects and treats wastewater, and supplies recycled water for irrigation purposes only .

WATER SUPPLY

Townsville Water services a population of approximately 190,000 residents by way of three drinking water schemes - Townsville Drinking Water Scheme, Paluma Township Drinking Water Scheme and Giru/ Cungulla Drinking Water Scheme. To deliver its water 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 about 85% of Townsville's water. A smaller dam with a capacity of 11,000 megalitres; Paluma Dam, also services the Townsville Drinking Water Scheme by providing water to Northern Water Treatment Plant for distribution to the northern areas of the Townsville City Municipality. During extended drought 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 under an agreement with Sunwater.

Ross River Dam

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 sale to the Burdekin Shire Council for Giru residents.

To supply the Paluma Township Drinking Water Scheme, water is taken from an unnamed rainforest creek to supply the small Paluma Township population.

Incidentally, Townsville Water supplies a small amount of nonpotable water each year. Other than the Paluma Township Drinking Water Scheme, the nonpotable scheme only services a small population. This is either supplied nonpotable water from bulk pipelines before the water reaches a treatment plant, or this receives water that has been through a treatment process where the supply has been classified as a supply of nonpotable water on the basis of chlorine decay in the pipeline. In this case, the water no longer meets the quality requirements to be considered as potable water and is only supplied for purposes other than drinking water.

Townsville Water is committed to providing safe, high quality drinking water and manages its supply of drinking water in accordance with the Australian Drinking Water Guidelines and its approved Drinking Water Quality Management Plan.

SEWERAGE SERVICES

Townsville Water collects and treats wastewater from across the Townsville Region, servicing a population of approximately 175,000. Sewage is collected and transported via approximately 1,359 kilometres of sewer main and over 180 sewage pumping stations to 6 wastewater treatment plants on the mainland and Magnetic Island for treatment.

At most 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.

Douglas Water Treatment Plant

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 sewerage 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 sewerage services.

‘4’ series – customer

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

General Series

Key findings

POTABLE WATER SUPPLY

In 2018/2019, Townsville Water, treated and supplied more water than in the prior financial year. This is a result of the dam reaching capacity during the flooding event and water restrictions being reduced to Water Conservation levels in March 2019, increasing water usage by 23%

Townsville Water produced over 46,000 mega litres of safe high-quality potable water from its treatment plants and processes during the financial year. It supplied over 25000 mega litres for residential purposes to over 80,000 residential customer connections, and over 11,000 mega litres for commercial, municipal and industrial purposes to nearly 5000 non-residential customer connections.

The highest demand for water that Townsville Water experienced in Quarter 3 within the 2018/2019 financial year was 164 megalitres. This is on par with last year's maximum water demand.

Mount St John Sewage Treatment Plant

SEWAGE COLLECTION AND TREATMENT

In 2018/2019, Townsville Water collected and treated approximately 19,000 mega litres of sewage from Townsville properties. Approximately 17,000 mega litres of sewage were collected from residential, non-residential and non-trade waste sources. It is estimated based upon water consumption, that approximately 1400 mega litres of wastewater were collected from approximately 3000 trade waste customers.

The majority of sewage was treated at Townsville Water's two largest treatment plants, Cleveland Bay Purification Plant and Mount Saint John Treatment Plant. After treating approximately 20,000 mega litres of sewage across all plants, around 17,000 mega litres of treated effluent were disposed of, predominately to ocean or local waterways. Prior to disposal, wastewater is treated to a high standard in accordance with environmental licence conditions.

In 2018/2019, Townsville Water produced over 2,500 mega litres 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

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
AS2	QG 1 .1	Length water mains	2,634 km	4,326 km	4 km	3 km	3 km	1 km	5 km		2,654 km	
AS5	QG 1 .2	Length sewerage mains and channels								1,359 km	1,359 km	
AS4	QG 1 .3	Number sewage treatment plants								6 sewage 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	275 ML per day								275 ML per day	
WA201	QG 1 .5	Maximum daily demand	194 ML								194 ML	
WA74	QG 1 .6	Volume potable water produced/supplied into water supply system	46,810 ML								46,810 ML	It has been identified that the difference in volume of water sourced and water supplied occurs due to a discrepancy with the type of meters being used. There is currently a plan in place to replace the meters in the 2019/2020 financial year.
AS48	QG 1 .7	Total drinking water storage volume	263 ML								263 ML	
WA1	QG 1 .8	Volume water sourced: surface water	43,527 ML								43,527 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	745,84 ML								745,840 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				605 ML	57 ML	117.40 ML	587 ML		1,366 ML	
WA7	QG 1.12	Volume water sourced	44,273 ML			605.20 ML	57 ML	117.40 ML	587 ML		45,640 ML	It has been identified that the difference in volume of water sourced and water supplied occurs due to a discrepancy with the type of meters being used. There is currently a plan in place to replace the meters in the 2019/2020 financial year.
CS2	QG 1.13	Connected residential properties: water	81,062 connections	92 connections							81,154 connections	
CS3	QG 1.14	Connected non-residential properties: water	4,890 connections								4,89o connections	
CS6	QG 1.15	Connected residential properties: sewerage								71,075 connections	71,075 connections	
CS7	QG 1 .16	Connected non-residential properties: sewerage								3,549 connections	3,549 connections	

RESULTS FOR GENERAL SERIES

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
WA32	QG 1 .17a	Volume of potable water supplied - residential	25,434 ML								25,434 ML	
WA91	QG 1 .17b	Volume of non-potable water supplied - residential		9 ML							9 ML	This is due to a pump station now treating water to a higher standard, this water is now potable water. This change in process has decreased results in this measure from 17/18.
WA34	QG 1 .18a	Volume of potable water supplied - commercial, municipal and industrial	11,222 ML								11,222 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	10,154 ML								10,154 ML	Volume of potable water produced that is not paid for increased this financial year due to 2 key contributing factors. Including the unprecedent February monsoon event impacting Townsville, along with a meter discrepancy issue over at a water treatment plants. Water meters are set to be replaced in October 2019.
WF1	QG 1 .20	Total Full-Time Equivalent water and sewerage services employees									297 full time equivalent employees	

Water Security Series

Key findings

Providing water security to Townsville is a priority of the Townsville City Council. The level of Townsville's main water source, the Ross River Dam, started drastically low during at the beginning of the year as a result of ongoing drought conditions, which was eased by significant rainfall in February/March. Townsville Water utilises water restrictions in times of drought to reduce the daily consumption within the community, this ensures that the Townsville community can be sustained by the supply of water from the Burdekin Dam.

Since July 2015, the Townsville service area has been on water restrictions, in order to reduce water consumption and preserve the water supply. These restrictions increased to Level 3 in August 2016, following the Ross Dam level falling below 20%. When significant rainfall fell during February/March 2018 water restrictions were eased back to Level 2, allowing residents more freedom in using water.

Restrictions remained in place ensuring sustainable supply in the Ross River Dam until the Horton Pipeline Duplication is completed.

Due to the Ross Dam level falling below 15%, Townsville Water utilised the Haughton Pipeline to pump water from the Burdekin Dam from 13 November to 28 February 2018.

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. Townsville Water is currently in the process of building the recommended additional 1,800mm diameter steel pipeline with additional pumps from the Haughton Pump Station to the Ross River Dam, and to increase the capacity of the existing Sunwater pump station and gravity channel from Clare to the Haughton Pump Station by 234ML/day.

RESULTS FOR WATER SECURITY SERIES

SWIM CODE	KPI CODE	INDICATOR TITLE	TOWNSVILLE POTABLE	TOWNSVILLE NON POTABLE	TOWNSVILLE WSP-WIDE	COMMENTS
WS1	QG 2 .1	Months of supply remaining at end of reporting period (30 June)	24 months' supply remaining		24 months' supply remaining	
WS2	QG 2 .2	Anticipated water availability to meet demand for next year	Townsville Water can meet anticipated demand for 2019-2020		Townsville Water can meet anticipated demand for 2019-2020	
WS3	QG 2 .3	Available contingency supplies	Yes, contingency supplies are available		Yes, contingency supplies are available	Contingency plan is outlined in WS2.
WS4	QG 2 .4	Total anticipated water demand for next reporting year	54,705 ML		54,705 ML	
WS5	QG 2 .5	Total anticipated annual water demand in five years' time	65,438 ML		65,438 ML	
WS6	QG 2 .6	Anticipated capacity to meet demand in 5 years' time	Townsville Water can meet anticipated demand in 5 years	Townsville Water can meet anticipated demand in 5 years	Townsville Water can meet anticipated demand in 5 years	
WS7	QG 2 .7	Planned supply system response	Response not required	Response not required	Response not required	Response not required as Townsville Water can meet anticipated demand in 5 years.
WS9	QG 2 .9	Water restrictions (severity)	31% reduction in water consumption		31% reduction in water consumption	

Finance Series

Key findings

Revenue from water operations, which equated to just over $185 million for the 2018/2019 financial year, is mostly derived from the retail supply of water to Townsville residents and businesses, with a small amount of revenue from the sale of potable water to the Burdekin Shire Council. Revenue from wastewater operations, which equated to just over $90 million, is mostly derived from the supply of wastewater services to residential and non-residential customers in the Townsville local government area.

Townsville Water's revenue increased in comparison to the previous financial year, as a result of easing of water restrictions.

In the 2018/2019 financial year Townsville Water's total operational costs were $87 or 167million, including depreciation and loan interest. For the water supply aspect of the business, the operational costs were approximately $50 million and, for the sewerage aspect of the business, the operational costs were approximately $37 million.

Just over $76 million was spent to build, upgrade and renew water and wastewater infrastructure during the financial year. This included approximately $18.9 million for the CBD Utilities Upgrade Project, which will upgrade the water and sewer networks in the CBD. Annual water pipes and services replacement programs, as well as water treatment plant renewals, and sewer pipe relining and manhole rehabilitation programs, were undertaken at a cost of $13.7 million to ensure the ongoing quality and reliability of water and sewerage services.

In order to provide services, Townsville Water operates and maintains approximately $12billion worth of fixed assets including dams, weirs, treatment plants, reservoirs, pumping stations, chlorinators, and water and sewerage distribution mains. To maintain the assets of the business at optimal level, Townsville Water spent over $12 million on maintenance activities during the year.

After accounting for all costs and tax, Townsville Water produced a dividend of approximately $37.8 million, which was distributed to council.

RESULTS FOR FINANCE SERIES

SWIM CODE	KPI CODE	INDICATOR TITLE	TOWNSVILLE WSP-WIDE
FN14	QG 3 .1	Total water supply capital expenditure	$14,766.03
FN15	QG 3 .2	Total sewerage capital expenditure	$39,028.75
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	$911,662.00
FN10	QG 3 .6	Nominal written-down replacement costs of fixed sewerage assets	$619,758.00
FN74	QG 3 .7	Current replacement costs of fixed water supply assets	$1,703,953.00
FN75	QG 3 .8	Current replacement costs of fixed sewerage assets	$1,032,365.00
FN1	QG 3 .9	Total revenue - water	$95,823.10
FN2	QG 3 .10	Total revenue - sewerage	$90,021.80
FN11	QG 3 .11	Operating cost - water	$583 per connection
FN12	QG 3 .12	Operating cost - sewerage	$503 per connection
FN76	QG 3 .13	Annual maintenance costs water	$5,651.00
FN77	QG 3 .14	Annual maintenance costs sewerage	$6,843.00
FN78	QG 3 .15	Current cost depreciation - water	$23,888.43
FN79	QG 3 .16	Current cost depreciation - sewerage	$16,325.83
FN80	QG 3 .17	Previous 5 year average annual renewals expenditure - water	$19,719.00
FN81	QG 3 .18	Previous 5 year average annual renewals expenditure - sewerage	$9,155.00
FN82	QG 3 .19	Forecast 5 year average annual renewals expenditure - water	$16,851.00
FN83	QG 3 .20	Forecast 5 year average annual renewals expenditure - sewerage	$9,074.00

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 in order 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 2 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 2018/2019, the majority of customers in Townsville chose the Standard Plan water billing option. The residential bill for water under the Standard Plan is $769 per year, which includes a water allocation of 772kL.

For its residential sewerage services, Townsville Water charges a fixed charge per year for each dwelling, home unit, flat or vacant lot. During the 2018/2019 financial year, the fixed charge was $775 per year.

SERVICE INTERRUPTION

Townsville Water owns and maintains over 1359kms of water distribution mains in order to supply water to the Townsville community. Mains breaks can be experienced due to aging infrastructure, expanding and shrinking of soils, water pressure, or damage. During the 2018/2019 financial year, Townsville Water experienced a slight increase in water mains breaks per 100km of mains, at 99 breaks per 100km of mains. This increase can largely be attributed to the floods.

Townsville Water must interrupt water services at short notice at times in order to carry out work on its mains. This means that customers may experience a loss of water supply on occasion. In 2018/2019, there were approximately 576 properties affected by unplanned interruptions to the water supply during the year. This equates to around 22 properties experiencing interruptions to supply for every 1,000 properties.

Townsville owns and maintains over 1359kms of sewer mains in order to collect and transport sewage to treatment plants for treatment. During the 2018/2019 financial year, there were 7.3 breaks and chokes per 100 km of sewer main, with only 99 breaks and chokes in total.

RESPONSE TIMES

Townsville Water 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 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 actually restore the service or fix the issue. For water incidents, 91% of incidents during 2018/2019 were responded to within the targeted 4-hour time frame. For sewerage incidents, 74% of incidents during 2018/2019 were responded to within the targeted 4-hour time frame.

COMPLAINTS

Townsville Water received 1formal complaints about water quality during the financial year.

There were 18 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 less than 0.4 complaints per 1,000 properties receiving water services.

RESULTS FOR CUSTOMER SERIES

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	$769 per year	No fixed charges apply to this scheme	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		$769 per year	
PR5	Qg 4.1a	Fixed charge – water description	Per Property, lot or connection	No fixed charges apply to this scheme	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								$790 per year	$790 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									$ 1,559.00	This amount is based upon an annual water bill with 772kL usage, as Townsville Water's most popular water plan is its Standard Plan where a $769 charge includes an annual access fee plus an annual allowance of 772kL water consumption.
PR48	QG 4 .4	Typical residential bill									$ 1,559.00	This amount is based upon an annual water bill with 772kL usage, as Townsville Water's most popular water plan is its Standard Plan where a $769 charge includes an annual access fee plus an annual allowance of 772kL water consumption.
AS8	QG 4 .5	Total water main breaks	21.8 per 100 km water main	0.00	0.00	0.00	0.00	0.00	0.00		21.70	
AS39	QG 4 .6	Total sewerage main breaks and chokes per 100 km								7.3 per 100 km sewer main	7.3 per 100 km sewer main	
CS17	QG 4 .7	Incidence of unplanned interruptions - water	16 per 1000 connections								16.4 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	91%								91%	91% of water incidents were responded to within the target set within our Customer Service Standards which is an average response time of within 4 hours of advice of incident being reported.
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								73.83	74%	74% of sewerage incidents were responded to within the target set within our Customer Service Standards which is an average response time of within 4 hours of advice of incident being reported.
CS9	QG 4 .10	Water quality complaints	0.01	0.00	0.00	0.00	0.00	0.00	0.00		0.01 per 1000 connections	This represents the number of complaints received through Townsville Water's Complaints Management System.
CS13	QG 4 .11	Total water and sewerage complaints	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.5 per 1000 connections	This represents the number of complaints received through Townsville Water's Complaints Management System.