

QUEENSLAND WATER SERVICE PROVIDER

Performance Report

2016-2017



Table of Contents

| | |
|---|---|
| Summary | 3 |
| Purpose of this Performance Report | 3 |
| Overview of Townsville Water's Operations and Services | 4 |
| WATER SUPPLY | 4 |
| SEWERAGE SERVICES | 5 |
| Explanation of Key Performance Indicator Groups | 6 |
| '1' series – general | 6 |
| '2' series – water security | 6 |
| '3' series – finance | 6 |
| '4' series – customer | 6 |
| General Series | 7 |
| Key findings | 7 |
| POTABLE WATER SUPPLY | 7 |
| SEWAGE COLLECTION AND TREATMENT | 7 |
| RESULTS FOR GENERAL SERIES | 8 |

| | |
|---|----|
| Water Security Series | 9 |
| Key findings | 9 |
| RESULTS FOR WATER SECURITY SERIES | 10 |
| Finance Series | 11 |
| Key findings | 11 |
| RESULTS FOR FINANCE SERIES | 12 |
| Customer Series | 13 |
| Key findings | 13 |
| PRICING | 13 |
| SERVICE INTERRUPTION | 13 |
| RESPONSE TIMES | 13 |
| COMPLAINTS | 13 |
| RESULTS FOR CUSTOMER SERIES | 14 |
| Conclusion | 15 |

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 2016/2017 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. Firstly, drought conditions continued in the region with Townsville's main water source, the Ross River Dam, dropping to 13.98% at its lowest point during the year. In order to preserve the water supply to last until significant rainfalls occur, water restrictions were in place for the entirety of the financial year. The imposition of these restrictions led to increased management requirements for the Townsville Drinking Water Scheme to ensure that the quality and supply of water remained in line with health and customer service standards. This included increased monitoring of water age, targeted flushing, managing reservoir levels and managing chlorine residuals.

Due to the Ross Ram level falling below 15%, it was also required that Townsville Water utilise the Houghton Pipeline to pump water from the Burdekin Dam during the financial year for 61 days to supplement supply.

Townsville Water also experienced significant water quality issues for its Paluma Township Drinking Water Scheme. In October 2016, the Paluma Township Drinking Water scheme was placed on a boil water advisory due to the detection of protozoa in the raw water supply. As the only treatment for the Paluma Township Drinking Water Scheme is only chlorine dosing which does not provide sufficient protection from *Cryptosporidium* or *Giardia* in concentrations safe for human consumption, the Paluma Drinking Water Scheme will now remain under boil water advisory until a new water treatment plant is commissioned in late March 2018.

Purpose of this Performance Report

As a drinking water and sewerage service provider under the Water Supply (Safety and Reliability) Act 2008, Townsville Water is 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 188,000 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, 3 water treatment plants, 27 water pumping stations, 41 reservoirs (water storage facilities) and over 2,500 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 like the present, 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. In October 2016, a boil water advisory was put in place for the Paluma Township Drinking Water Scheme as a result of water quality issues and as a result, the Paluma Township Drinking Water Scheme is being treated as a nonpotable water (not fit for drinking) scheme until such time as a new water treatment plant is commissioned to bring water quality in line with potable standards. This is expected in late March 2018.

Incidentally, Townsville Water supplies a small amount of nonpotable water each year. Otherwise than the Paluma Township Drinking Water Scheme, the nonpotable scheme only services a small population, which is either supplied nonpotable water from bulk pipelines before the water reaches a treatment plant, or which receives water that has been through a treatment process and 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 1,300 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 in place Quality and Environmental Management Systems in order 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 2016/17, Townsville Water sourced, treated and supplied less water than in the prior financial year. This is a result of water restrictions being in place for the entire 12 months of the year, reducing water usage by over 30%.

Townsville Water produced over 33,000 mega litres of safe high-quality potable water from its treatment plants and processes during the financial year. It supplied over 19,000 mega litres for residential purposes to nearly 80,000 residential customer connections, and over 9,000 mega litres for commercial, municipal and industrial purposes to nearly 5000 non-residential customer connections.

Due to the Ross Ram level falling below 15%, it was also required that Townsville Water utilise the Houghton Pipeline to pump water from the Burdekin Dam from mid-November 2016 to mid-January 2017.

The highest demand for water that Townsville Water experienced in a single day within the 2016/2017 financial year was 137 megalitres. This constitutes a significant reduction from the previous financial year where the maximum daily demand was 213 megalitres. The significant difference of these results can be attributed to water restrictions being present for a longer period and the increase to Level 3 restrictions.

Townsville Water's maximum combined water treatment capacity is 275 megalitres each day. In order to ensure that we will be able to supply the maximum daily demand for water from the Townsville community into the future, planning is underway for a new water treatment plant which is expected to be required within the next 5 years.

SEWAGE COLLECTION AND TREATMENT

In 2016/2017, Townsville Water collected and treated over 19,000 mega litres of sewage from Townsville properties. Approximately 17,000 mega litres of sewage was collected from residential, non-residential and non-trade waste sources. It is estimated based upon water consumption, that approximately 1,800 mega litres of wastewater was collected from around 1,000 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 17,000 mega litres of sewage across all plants, around 14,000 mega litres of treated effluent was 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 2016/2017, Townsville Water produced over 2,900 mega litres of recycled water, with approximately 1700 mega litres being reused for irrigation purposes either onsite at wastewater treatment plants or supplied for use as irrigation for open space areas or sporting fields.



Mount St John Sewage treatment Plant

RESULTS FOR GENERAL SERIES

| SWIM CODE | KPI CODE | INDICATOR TITLE | TOWNSVILLE POTABLE WATER | TOWNSVILLE NONPOTABLE WATER | 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 of water mains | 2,585 km | 0 km | 0 km | 0 km | 3 km | 1 km | 5 km | | 2,594 km | |
| AS5 | QG 1.2 | Length of sewerage mains | | | | | | | | 1,331 km | 1,331 km | |
| AS4 | QG 1.3 | Number of sewage treatment plants | | | | | | | | 6 sewage treatment plants | 6 sewage treatment plants | |
| AS1 | QG 1.4a | Number of water treatment plants | 3 water treatment plants | | | | | | | | 3 water treatment plants | |
| AS47 | QG 1.4b | Capacity of water treatment plants | 275 ML per day | | | | | | | | 275 ML per day | Douglas, Northern and Giru Water Treatment Plants have a combined capacity of 275ML per day. |
| WA201 | QG 1.5 | Maximum daily demand | 137 ML per day | | | | | | | | 137 ML per day | The maximum daily demand is significantly lower than in the previous financial year as a result of water restrictions being in place. |
| WA74 | QG 1.6 | Total volume of potable water produced | 33,341 ML | | | | | | | | 33,341 ML | When the volume of potable water produced is compared to the volume of water taken in to our treatment plant during the 16/17 reporting year, an anomaly has been identified with the amount of treated water that is recorded by meter as having left the Douglas Water Treatment Plant (such volume is captured in this indicator). A project to install additional meters at Douglas will occur during the 17/18 year in order to rectify the issue. |
| AS48 | QG 1.7 | Total treated/drinking water storage | 263 ML | | | | | | | | 263 ML | The result for total drinking water storage volume includes all bulk water storage tanks, including those at the Douglas, Northern and Giru Water Treatment Plants. |
| WA1 | QG 1.8 | Volume of water sourced from surface water | 37,275 ML | Data not available | | | | | | | 37,275 ML | Less water was required to be taken and treated in comparison to the previous reporting year as water restrictions were in place during 16/17 which reduced consumption. This includes 8,158ML of water taken from the Burdekin Dam to pump to the Ross Dam via the Haughton Pipeline for feeding into our potable water scheme. |
| WA2 | QG 1.9a | Volume of water sourced from groundwater | No groundwater sourced | No groundwater sourced | | | | | | | No groundwater sourced | There are no current or future plans for Townsville Water to source water for supply purposes from groundwater. |
| WA45 | QG 1.9b | Volume of water received from bulk supplier | 8,158 ML | | | | | | | | 8,158 ML | Townsville Water purchases raw water from the Burdekin Dam under an agreement with Sunwater and pumps the water via the Haughton Pipeline where it is received into the back of the Ross Dam. The water is taken from the Ross Dam to feed into our potable water scheme. It is unknown what percentage of this imported water is actually used in 'supply' to urban customers. Volumes are significantly higher than in 15/16 as pumping was required to supplement usual supply as a result of the Ross Dam dropping lower than 15% for approximately 2 months of the year. |
| WA61 | QG 1.10 | Volume of water sourced from desalination of marine water | No marine water sourced | No marine water sourced | | | | | | | No marine water sourced | There are no current or future plans for Townsville Water to source water for supply purposes from desalination of marine water. |
| WA26 | QG 1.11 | Total recycled water supplied | | | 59 ML | 667 ML | 47 ML | 94 ML | 852 ML | | 1,719 ML | |
| WA7 | QG 1.12 | Total water sourced | 37,275 ML | 0 ML | 690 ML | 667 ML | 35 ML | 79 ML | 1448 ML | | 40,194 ML | |
| CS2 | QG 1.13 | Connected residential properties - water supply | 79,920 connections | 95 connections | 0 | 0 | 0 | 0 | 0 | | 80,015 connections | Townsville Water does not supply any recycled water to residential customers. |
| CS3 | QG 1.14 | Connected non-residential properties - water supply | 4,880 connections | 0 | 0 | 1 | 1 | 2 | 0 | | 4,884 connections | |
| CS6 | QG 1.15 | Connected residential properties - sewerage | | | | | | | | 69,750 connections | 69,750 connections | |
| CS7 | QG 1.16 | Connected non-residential properties - sewerage | | | | | | | | 3,520 connections | 3,520 connections | |

RESULTS FOR GENERAL SERIES

| SWIM CODE | KPI CODE | INDICATOR TITLE | TOWNSVILLE POTABLE WATER | TOWNSVILLE NONPOTABLE WATER | 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 | 19,397 ML | | | | | | | | 19,397 ML | The potable water supplied has decreased in comparison to the 15/16 financial year due to water restrictions being in place for the entirety of the financial year. |
| WA91 | QG 1.17b | Volume of non-potable water supplied - residential | | 11 ML | None supplied | None supplied | None supplied | None supplied | None supplied | | 11 ML | Additional connections in the Paluma area were added to Townsville Nonpotable scheme from Quarter 3 of the financial year. |
| WA34 | QG 1.18a | Volume of potable water supplied - commercial, municipal and industrial | 9,279 ML | | | | | | | | 9,279 ML | The potable water supplied has decreased in comparison to the 15/16 financial year due to water restrictions being in place for the entirety of the financial year. |
| WA92 | QG 1.18b | Volume of non-potable water supplied - commercial, municipal and industrial | | 0 ML | | | | | | | 0 ML | |
| WA36 | QG 1.19 | Volume of non-revenue water | 4,665 ML | | | | | | | | 4,665 ML | |
| WF1 | QG 1.20 | Total Full-Time Equivalent water and sewerage services employees | | | | | | | | | 403 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, dropped drastically low during the year as a result of ongoing drought conditions. The cycle for drought in Townsville is statistically about every 10 years. Townsville Water utilises water restrictions in times of drought to reduce the daily consumption within the community, to ensure that the Townsville community can be sustained by the supply of water from the Burdekin Dam, in the worst case scenario that the Ross River Dam reaches critical levels before the drought breaks.

Since July 2015, the Townsville service area has been on water restrictions in order to reduce water consumption and preserve the water supply to last until significant rainfalls occur.

Level 3 restrictions were introduced as of 8 August 2016, following the Ross Dam level falling below 20%. This was a significant change as it banned the use of all residential and commercial sprinkler and irrigation systems and restricted handheld watering to 4 hours per week. When the highest level water restrictions were in place for 2016/2017 (Level 3), water consumption within the Townsville Drinking Water Scheme was reduced by around 45%. This was a crucial step towards reducing the overall water consumption of the Townsville community to a daily consumption amount that can be sustained by the supply of water from the Burdekin Dam.

Due to the Ross Dam level falling below 15%, Townsville Water utilised the Haughton Pipeline to pump water from the Burdekin Dam from mid-November 2017 to mid-January 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. On 10 March 2017 an intergovernmental taskforce was appointed in order to investigate the short, medium and long-term solutions of water security for Townsville. The taskforce undertook extensive community consultations and commissioned a range of engineering and technical analyses, releasing an interim report 30 June 2017 which identified a number of proposals for addressing water security issues. One of the key recommendations in the short term (0 - 3 years), was to build an 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. Construction work on the Haughton Pipeline Duplication will begin in 2017/2018. The final report of the Water Security Taskforce will be provided by September 2018.

RESULTS FOR WATER SECURITY SERIES

| SWIM CODE | KPI CODE | INDICATOR TITLE | TOWNSVILLE POTABLE WATER | TOWNSVILLE NONPOTABLE WATER | TOWNSVILLE WSP-WIDE | COMMENTS |
|-----------|----------|---|--|---|--|--|
| WS1 | QG 2.1 | Months of supply remaining at end of reporting period (30 June) | 11 months' supply remaining | Data not available | 11 months' supply remaining | The main metropolitan scheme sources its water from the Ross Dam and the Paluma Dam. Based upon the level of the Ross and Paluma Dams at 30 June 2017, 11 months water supply remains. This does not take into account the impact of any water restrictions, rainfall (expected or otherwise) or Townsville Water's allocation of High Priority and Medium Priority water from the Burdekin/Haughton under agreement with Sunwater. The supply for the Cungulla Township is taken from the Haughton River which is expected to provide sufficient supply indefinitely. |
| WS2 | QG 2.2 | Anticipated capacity to meet demand for next reporting year (at QG 2.4) | Townsville Water can meet anticipated demand for 2017-2018 | Data not available | Townsville Water can meet anticipated demand for 2017-2018 | If there is inadequate rainfall, Townsville Water will pump water from the Burdekin/Haughton under their allocation agreement with Sunwater, with access to High Priority and Medium Priority water. Townsville Water was on Level 3 Water Restrictions for the majority of the financial year. Level 4 Water Restrictions are designed to reduce the consumption within the metropolitan scheme to an amount of megalitres per day which can sustain supply until rainfall replenishes the Ross Dam. The supply for the Cungulla Township is taken from the Haughton River which is expected to provide sufficient supply indefinitely. The supply for Paluma Township should be replenished from rainfall as this is a Wet Tropics area. There are plans for water to be trucked in to supply the Paluma Township, in the event of insufficient supply from the Paluma Weir. |
| WS3 | QG 2.3 | Available contingency supplies | Yes, contingency supplies are available | Data not available | Yes, contingency supplies are available | Contingency plan is outlined in WS2. |
| WS4 | QG 2.4 | Total anticipated water demand for next reporting year | 34,950 ML | Data not available | 34,950 ML | This number is lower than previous years due to Townsville being in Level 3 Water Restrictions. If Water Restrictions are removed, it will likely be the result of heavy rainfall in which it is expected that water usage will remain low in that case also. |
| WS5 | QG 2.5 | Total anticipated annual water demand in five years' time | 65,200 ML | Data not available | 65,200 | This is based upon: 1 - the 2017 growth model projections of 210,153 water connected residents in 2022; and 2 - a per capita water usage of 850L/Capita/Day. |
| WS6 | QG 2.6 | Anticipated capacity to meet demand in 5 years' time (at QG 2.5) | 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 | This figure does not take in to account lessened demand due to water restrictions or water demand management. |
| 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. |
| WS10 | QG 2.8 | Water restrictions (duration) | Water restrictions were in place for 12 months | Data not available | Water restrictions were in place for 12 months | Water restrictions were in place for 12 months. Townsville entered Level 2 Water Restrictions in October 2015 and Level 3 Water Restrictions in August 2016. |
| WS9 | QG 2.9 | Water restrictions (severity) | 45% reduction in water consumption as a result of restrictions | Data not available | 45% reduction in water consumption as a result of restrictions | Level 2 Water Restrictions were introduced on 27 October 2015 for the Townsville Supply Scheme and this was increased to Level 3 Water Restrictions 8 August 2016. Paluma and Cungulla schemes have remained on Level 1 Water Restrictions. On average, Townsville Water produced 45% less water under Level 3 Water Restrictions when compared with a comparable time 2 years earlier when Townsville Supply Scheme was under Level 1 Water Restrictions. |

Finance Series

Key findings

Revenue from water operations, which equated to just under \$89 million for the 2016/2017 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 almost \$86 million, is mostly derived from the supply of wastewater services to residential and non-residential customers in the Townsville local government area. Government grants and subsidies accounted for only 1% of Townsville Water's total revenue, which is a slight increase on last year. These grants and subsidies are all for community service obligations recognised by the Townsville City Council.

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

In the 2016/17 financial year Townsville Water's total operational costs were \$146 million, including depreciation and loan interest. For the water supply aspect of the business, the operational costs were approximately \$86 million and, for the sewerage aspect of the business, the operational costs were approximately \$60 million.

Just over \$51 million was spent to build, upgrade and renew water and wastewater infrastructure during the financial year. This included approximately \$21 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 \$20 million to ensure the ongoing quality and reliability of water and sewerage services.

In order to provide services, Townsville Water operates and maintains approximately \$2.7 billion 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 \$17 million on maintenance activities during the year.

After accounting for all costs and tax, Townsville Water produced a dividend of approximately \$11 million, which was wholly 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 | \$31,738,000 |
| FN15 | QG 3.2 | Total sewerage capital expenditure | \$19,485,000 |
| FN26 | QG 3.3 | Capital works grants - water | \$0 |
| FN27 | QG 3.4 | Capital works grants - sewerage | \$0 |
| FN9 | QG 3.5 | Nominal written-down replacement cost of fixed water supply assets | \$912,719,000 |
| FN10 | QG 3.6 | Nominal written-down replacement costs of fixed sewerage assets | \$605,936,000 |
| FN74 | QG 3.7 | Current replacement costs of fixed water supply assets | \$1,666,902,000 |
| FN75 | QG 3.8 | Current replacement costs of fixed sewerage assets | \$1,028,617,000 |
| FN1 | QG 3.9 | Total revenue - water | \$88,845,000 |
| FN2 | QG 3.10 | Total revenue - sewerage | \$85,936,000 |
| FN11 | QG 3.11 | Operating cost - water | \$580 per connection |
| FN12 | QG 3.12 | Operating cost - sewerage | \$499 per connection |
| FN76 | QG 3.13 | Annual maintenance costs water | \$9,090,000 |
| FN77 | QG 3.14 | Annual maintenance costs sewerage | \$7,925,000 |
| FN78 | QG 3.15 | Current cost depreciation - water | \$26,600,000 |
| FN79 | QG 3.16 | Current cost depreciation - sewerage | \$16,077,000 |
| FN80 | QG 3.17 | Previous 5 year average annual renewals expenditure - water | \$14,052,000 |
| FN81 | QG 3.18 | Previous 5 year average annual renewals expenditure - sewerage | \$8,069,000 |
| FN82 | QG 3.19 | Forecast 5 year average annual renewals expenditure - water | \$21,682,000 |
| FN83 | QG 3.20 | Forecast 5 year average annual renewals expenditure - sewerage | \$9,220,000 |

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 2016/2017, the majority of customers in Townsville chose the Standard Plan water billing option. The residential bill for water under the Standard Plan is \$739 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 2016/2017 financial year, the fixed charge was \$759 per year.

SERVICE INTERRUPTION

Townsville Water owns and maintains over 2500kms 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 2016/2017 financial year, Townsville Water experienced a slight increase in water mains breaks per 100km of mains, at 33.6 breaks per 100km of mains. This increase can largely be attributed to the continuation of dry weather and consequential ground instability.

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 2016/2017, there were approximately 2,584 properties affected by unplanned interruptions to the water supply during the year. This equates to around 31 properties experiencing interruptions to supply for every 1,000 properties.

Townsville owns and maintains over 1300kms of sewer mains in order to collect and transport sewage to treatment plants for treatment. During the 2016/2017 financial year, there were 2.7 breaks and chokes per 100 km of sewer main, with only 36 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, 84% of incidents during 2016/17 were responded to within the targeted 4 hour time frame. For sewerage incidents, 98% of incidents during 2016/17 were responded to within the targeted 4 hour time frame.

COMPLAINTS

Townsville Water did not receive any formal complaints about water quality during the financial year.

There were 72 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 1 complaint per 1,000 properties receiving water services.

RESULTS FOR CUSTOMER SERIES

| SWIM CODE | KPI CODE | INDICATOR TITLE | TOWNSVILLE POTABLE WATER | TOWNSVILLE NONPOTABLE WATER | 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 | \$739 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 | | \$739 per year | |
| PR5 | QG 4.1a | Fixed charge - water | Fixed charges apply to each property, lot or connection | Fixed charges apply to each property | 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 | | Fixed charges apply to each property, lot or connection | |
| PR31 | QG 4.2 | Fixed charge - sewerage | | | | | | | | \$759 per year | \$759 per year | |
| PR40 | QG 4.2a | Fixed charge - sewerage | | | | | | | | Fixed charges apply to each property, home unit, flat, lot or dwelling | Fixed charges apply to each property, home unit, flat, lot or dwelling | |
| PR47 | QG 4.3 | Annual bill based on 200 kL/annum | | | | | | | | | \$1,498 | 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 \$739 charge includes an annual access fee plus an annual allowance of 772kL water consumption. |
| PR48 | QG 4.4 | Typical residential bill | | | | | | | | | \$1,498 | 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 \$739 charge includes an annual access fee plus an annual allowance of 772kL water consumption. This amount is based upon an annual fixed sewerage charge, not based upon usage. |
| AS8 | QG 4.5 | Total water main breaks | 33.6 per 100 km water main | 0 | 0 | 0 | 0 | 0 | 0 | | 33.6 per 100 km water main | |
| AS39 | QG 4.6 | Total sewerage main breaks and chokes | | | | | | | | 2.7 per 100 km sewer main | 2.7 per 100 km sewer main | |
| CS17 | QG 4.7 | Incidence of unplanned interruptions - water | 31 per 1000 connections | | | | | | | | 31 per 1000 connections | |
| CS37 | QG 4.8 | Percentage of water incident (bursts and leaks) responded to within the average response time detailed in customer service standards | 84% | See Townsville Water potable scheme. | | | | | | | 84% | 84% 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. |
| CS33 | QG 4.9 | Percentage of sewerage incidents (including main breaks and chokes) responded to within the average response time detailed in customer service targets | | | | | | | | 98% | 98% | 98% 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 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 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 | 1 per 1000 connections | | 0 | 0 | 0 | 0 | 0 | 0 | 1 per 1000 connections | This represents the number of complaints received through Townsville Water's Complaints Management System. |

Conclusion

Townsville Water's main challenge to performance during the 2016/2017 financial year continued to centre on drought conditions leading to the implementation of water restrictions and necessary pumping of water from the Haughton pipeline.

Restrictions were in place for the entirety of the year in order to preserve the water supply and pumping was required for a period of approximately two months in order to ensure sufficient water was available for Townsville residents. The restrictions reduced water consumption within the city, impacting on the revenue of the business and the drought conditions contributed to a higher number of water main breaks. Water restrictions will continue in place during 2017/2018, until significant rainfalls occur to replenish the Ross River Dam.

It is likely that Townsville Water will continue to require contingency supplies of water from the Burdekin Dam during the 2017/2018 financial year, with Level 3 Water Restrictions continuing.