

Redland Water Performance Report

2017-2018

January 2019

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Introduction

In 2014, a mandatory performance reporting framework was introduced by 'the Regulator' Department of Energy and Water Supply, later restructured to the Department of Natural Resources, Mines and Energy. Under this framework service providers are required to submit annual reports to the Regulator in the form of a performance report. The aim of this was to focus on outcomes and not plans, improve openness and give customers more insight into service provider's performance and challenges.

This Annual Performance report has been prepared in accordance with the Report Requirement Notice issued by the Regulator, under section 142A of the Water Supply (Safety and Reliability) Act 2008. It measures our performance against key industry performance indicators developed in consultation with the Regulator and the water industry. From this, the Regulator will prepare an annual comparative report that compares the performance of service providers across the state. This comparative report will be published on the Regulators website.

Overview of Operations

Redland City Council covers an area of approximately 537 square kilometres and has a population of approximately 155,600 people.

Redland Water commenced operations on 1 July 2012 as a commercial business unit of Redland City Council. Our primary functions are to provide customers with a safe, reliable and compliant water supply and the collection and treatment of wastewater. We are also responsible for charging customers for water and wastewater services.

Bulk water is purchased from Seqwater and delivered to residents through our distribution network consisting of 1,301KM of water mains. We manage, operate and maintain reservoirs in each of the North Stradbroke Island (NSI) township schemes but not on the mainland.

We provide drinking water to 68,364 properties through four (4) water supply schemes:

- Redland City and Southern Moreton Bay Islands Supply Scheme
- Dunwich Supply Scheme
- Amity Point Supply Scheme
- Point Lookout Supply Scheme

Redland Water also manages, operates and maintains pumping stations and mains as part of this distribution network.

Redland Water owns and operates seven (7) Waste Water Treatment Plants which treat incoming wastewater collected from 53,607 properties across the existing wastewater connection area, including the management of Trade Waste generated by approximately 804 businesses, via a network of 137 pump stations and 1,200KM of mains.

Key Performance Indicators

Water Treatment and Supply Assets

Indicator	Code QGKPI/NPR	Value	Units
Number water treatment plants providing full treatment	QG1.4a/A1	NR	Count
Length of water mains	QG 1.1 / A2	1,301	km
Length potable water mains only	-/IA11IA49	1,301	km
Population receiving water services	-/C1	155.600	000s
Connected Residential properties*	QG 1.13 / C2	65.886	000s
Connected Non-residential properties	QG 1.14 / C3	2.478	000s
Total connected properties – water supply * <i>(figure 1.1)</i>	-/C4	68.364	000s
Total Service Connections: water	-/IA10	55.867	000's
Service connections per km water main	IA10IA11	42.94	Service connections/km
Connections served per km water main	-/A3	52.28	Connections/km
Total drinking water storage volume	QG 1.7/-	6.01	ml/day
Number of water main breaks, bursts and leaks	-/IA8	41	Count
Water main breaks per 100km water main	QG 4.5 / A8	3.2	Per 100km water main
Infrastructure Leakage Index (ILI)**	-/A9	0.3	Index
Real water losses: service connections	-/A10	16.5	L/service connections/d)
Real water losses: water mains	-/A11	0.71	ml/km/day

* Includes 7431 vacant properties

**ILI System Leakage is less than Water Act exemption level for large Water Service Providers

NR- Not Relevant

Water Sources and Use

Indicator	Code QGKPI/NPR	Value	Units
Total volume of potable water produced/supplied into the water system	QG 1.6 / W11.3	13,148.41	ml/day
Volume of sourced: imported	QG1.9b/W5	13,148.41	ml
Volume of water sourced: desalination marine water	QG1.10/W3.1	NR	ml
Volume of potable +non-potable water imported	-/W5.3	13,148.41	ml
Volume recycled sewage imported	-/W6	NR	ml
Volume water sourced: surface water	QG 1.8 / W1	NR	ml
Volume of water sourced: groundwater	QG 1.9a / W2	NR	ml
Volume water sourced: all	QG 1.12 / W7	13,237.0	ml
Maximum daily demand	QG 1.5/-	52.7	ml/day
Volume water supplied: all (<i>figure 1.2</i>)	-/W11	13,237.02	ml
Annual residential water supplied per connection	-/W12	164.24	kl/connection/year
Volume of raw (untreated) water supplied: Environmental flows	-/W13	NR	ml
Volume all water supplied: residential	-/W8	10,821.24	ml
Volume potable + raw-PT water supplied: residential (excluding recycled water)	-/W8.3	10,821.24	ml
Volume all water supplied (includes recycled water): non-residential	-/W9	2,415.78	ml
Volume potable + raw-PT water supplied: non-residential	-/W9.3	2,327.17	ml
Volume potable water supplied: non-revenue	QG1.19/W10.1	456	ml
Volume potable + raw-PT + recycled water exported	-/W14	NR	ml

NR- Not Relevant

Indicator	Code QGKPI/NPR	Value	Units
Volume potable + raw-PT water exported	-/W14.3	NR	ml
Volume recycled sewage exported	-/W15	NR	ml
Volume recycled sewage supplied: all	QG 1.11 / W26	88.6	ml

Water security and drinking water compliance

Indicator	Code QGKPI/NPR	Value	Units
Months water supply remaining: 30 June	QG2.1/-	NR	Months
Anticipated water availability to meet demand for next year	QG2.2/-	NR	Ok/not ok
Available contingency supplies	QG2.3/-	NR	Yes/no
Total anticipated water demand for next reporting year	QG2.4/-	13,263	ml
Total anticipated annual water demand in five years' time	QG2.5/-	13,888	ml
Anticipated capacity to meet demand in 5 years' time	QG2.6/-	NR	Ok/not ok
Planned supply system response	QG2.7/-	NR	Yes/no
Water restrictions (duration)	QG 2.8/-	0	Months
Water restrictions (severity)	QG 2.9/-	0	%
Water quality compliance guidelines used	-/H1	Australian Drinking Water Guidelines	Text
Per cent population where microbiological compliance achieved	-/H3	100	%
Number zones chemical compliance achieved	-/H4	4	Count

NR- Not Relevant

Indicator	Code QGKPI/NPR	Value	Units
Number chemical compliance zones tested	-/H4a	4	Count
Risk based drinking water management plan assessed externally	-/H5	Yes	Yes/no

Sewerage Collection and Treatment Assets

Indicator	Code QGKPI/NPR	Value	Units
Length sewerage mains and channels	QG 1.2 / A5	1200	km
Number sewerage treatment plants	QG 1.3 / A4	7	Count
Connected Residential Properties: sewerage*	QG 1.15 / C6	51.749	000s
Connected Non-residential properties: sewerage	QG 1.16 / C7	1.858	000s
Total connected properties: sewerage	-/C8	53.607	000s
Connections served per km sewer main	-/A6	44.67	Connections/km
Number sewerage mains breaks/chokes	-/IA14	43	Count
Sewerage mains breaks/chokes per 100km sewer main	QG 4.6 / A14	3.58	per 100km sewer main
Number property connection sewer breaks/chokes	-/IA15	60	count
Property connection sewer break/chokes per 1000 connections	-/A15	1.12	Per 1000 connections

*Includes 991 vacant blocks

Sewage Collection, Treatment and Environmental

Indicator	Code QGKPI/NPR	Value	Units
Volume sewage collected: residential + non-trade	-/W16	9,974.9	ml
Volume sewage collected: trade waste	-/W17	346	ml

Indicator	Code QGKPI/NPR	Value	Units
Volume sewage collected: residential + trade	-/W18	10,320.9	ml
Volume sewage exported	-/W18.1	NR	ml
Volume sewage imported	-/W18.2	NR	ml
Volume sewage collected: sewer mining	-/W18.3	NR	ml
Volume sewage inflow measured at sewer treatment plant (STP) inlet**	-/W18.4	10,320.9	ml
Volume sewage treated (figure 1.3)***	-/W18.5	11,091.2	ml
Volume sewage collected per connection	-/W19	192.53	kl/connection/year
Volume recycled sewage imported	-/W6	NR	ml
Volume recycled sewage supplied: residential	-/W20	NR	ml
Volume recycled sewage supplied: non-residential	-/W21	88.61	ml
Volume recycled sewage supplied: environmental flows	-/W23	NR	ml
Volume recycled sewage supplied: aquifer recharge	-/W25.1	NR	ML
Per cent sewage recycled	-/W27	0.80	%
Volume recycled stormwater supplied: residential	-/W28.4	NR	ml
Volume recycled stormwater supplied: non-residential	-/W28.5	NR	ml
Volume treated sewage disposal: all	-/W29	10,601.19	ml
Wastewater losses: all	-/W30	MD	ml
Volume water returned to surface water or groundwater from water supply system	-/W31	NR	ml
Volume sewage treated: maximum primary level only	-/IE1	0	ml
Per cent sewage treated: maximum primary level only	-/E1	0	%

** Estimated as inlet meter not in operation 1/7/18/-24/7/18 at Thorneside Wastewater treatment plant due to inlet works and leachate disposed after the meter at Victoria point due to vehicle access issues

***Estimated - appears to be more than the amount collected due to the above factors.

NR- Not Relevant

Indicator	Code QGKPI/NPR	Value	Units
Volume sewage treated: maximum secondary level only	-/IE2	0	ml
Per cent sewage treated: maximum secondary level only	-/E2	0	%
Volume sewage treated: maximum tertiary level only	-/IE3	11091.19	ml
Per cent sewage treated: tertiary level	-/E3	100	%
Greenhouse gas emissions: water	-/IE9	MD	t CO2eq
Greenhouse gas emissions: water per 1000 connections	-/E9	MD	t CO2eq
Greenhouse gas emissions: sewage	-/IE10	2,311	t CO2eq
Greenhouse gas emissions: sewage per 1000 connections	-/E10	43.11	t CO2eq
Greenhouse gas emissions: other	-/IE11	MD	t CO2eq
Greenhouse gas emissions: other per 1000 water connections	-/E11	MD	t CO2eq
Greenhouse gas emissions: all	-/IE12	2,311	t CO2eq
Greenhouse gas emissions: all per 1000 water connections	-/E12	33.80	t CO2eq
Per cent bio solids reused	-/E8	98	%

Customer Service

Indicator	Code QGKPI/NPR	Value	Units
Number water complaints: quality	-/IC9	170	Count
Water quality complaints per 1000 connections	QG 4.10 / C9	2.49	per 1000 connections
Number water complaints: service	-/IC10	16	Count
Water service complaints per 1000 connections	-/C10	0.23	per 1000 connections

MD - Missing Data

Indicator	Code QGKPI/NPR	Value	Units
Number Sewerage complaints: service	-/IC11	21	Count
Sewerage service complaints per 1000 connections	-/C11	0.39	per 1000 connections
Number water and sewerage complaints: billing and accounts	-/IC12	6	Count
Billing and account complaints: water and sewerage per 1000 connections	-/C12	0.09	per 1000 connections
Number water and sewerage complaints: all	-/IC13	217	Count
Number water and sewerage complaints: all other	-/IC13.1	4	Count
Water and sewerage complaints (all) per 1000 connections <i>(figure 1.11)</i>	QG 4.11 / C13	3.17	per 1000 connections
Per cent calls answered within 30 seconds	-/C14	MD	%
Average duration unplanned interruptions: water	-/C15	148	minutes
Number customers affected by unplanned interruptions	-/IC17	3,783	Count
Average frequency unplanned interruptions: water <i>(figure 1.12)</i>	QG 4.7 / C17	55.34	per 1000 connections
Percent Customer Service Standards response target met: water incidents	QG 4.8/-	100	%
Percent Customer Service Standards response target met: Sewerage incidents	QG 4.9/-	100	%
Number restrictions applied for non-payment of water bill	-/IC18	0	Count
Restrictions applied for non-payment of water bill per 1000 connections	-/C18	0	per 1000 connections
Number customers which legal action applied for non-payment of water bill	-/IC19	69	Count
Customers which legal action applied for non-payment of water bill per 1000 connections	-/C19	1.01	per 1000 connections

MD- Missing Data

Pricing

Water Supply

Indicator	Code QGKPI/NPR	Value	Units
Water pricing tariff structure	-/P1	Access + Flat rate	Text
Fixed access charge – water	QG 4.1 (value)/ P1.2	263.60	(\$/annum)
Fixed charge: water description	QG 4.1(text)/-	Domestic per meter /lot	Text
Usage charge 1 st step: value	P1.3	3.151	\$/kl
Usage upper bound of 1st Step: kL	P1.3	>0	kl
Usage charge 2 nd step: value	P1.4	NR	\$/kl
Usage upper bound of 2nd Step: kL	P1.4a	NR	kl
Usage charge 3 rd step: value	P1.5	NR	\$/kl
Usage upper bound of 3 rd Step: kL	P1.5a	NR	kl
Usage charge 4 th step: value	P1.6	NR	\$/kl
Usage upper bound of 4 th Step: kL	P1.6a	NR	kl
Usage charge 5 th step: value	P1.7	NR	\$/kl
Usage upper bound of 5th Step: kL	P1.7a	NR	kl
Usage charge 6 th step: value	P1.8	NR	\$/kl
Usage upper bound of 6 th Step: kL	P1.8a	NR	kl
Special levies value: water	P1.12	NR	\$/kl
Revenue from water special levies retained by the utility	P1.13	NR	Yes/no
Annual bill based on 200kL/annum: water (<i>figure 1.4</i>)	P2	893.80	\$
Typical residential bill: water	P3	780.96	\$

NR- Not relevant

Sewage Collection and Treatment

Indicator	Code QGKPI/NPR	Value	Units
Fixed charge – sewerage value (<i>figure 1.5</i>)	QG 4.2(value) / P4.1	675.75	\$/annum
Fixed charge: sewerage description	QG4.2(text)	Based on 25units @\$27.03/ unit	Text
Sewerage pricing tariff structure	-/P4	Fixed Access Charge based on 25 units	Text
Usage charge: sewerage value	-/P4.2	NR	Text
Special levies: sewerage value	-/P4.3	NR	\$
Revenue from sewerage special levies retained by utility	-/P4.4	NR	Yes/no
Annual bill based on 200kL/annum: sewerage	-/P5	675.75	\$
Typical residential bill: sewerage	-/P6	675.75	

Water and Sewerage

Indicator	Code QGKPI/NPR	Value	Units
Annual bill based on 200kL /a: water and sewerage	QG4.3/ P7	1569.55	\$
Typical residential bill: water & sewerage	QG4.4/ P8	1456.71	\$

NR- Not relevant

Revenue & Expenditure

Water Supply

Indicator	Code QGKPI/NPR	Value	Units
Total capital expenditure: water supply	QG 3.1 / F14	1,126.69	\$,000
Capital expenditure per connection	-/F28	16.4808	\$/connection
Capital works grants: water	QG 3.3 / F26	0.00	\$,000
Nominal written down replacement cost: fixed assets	QG 3.5 / F9	292,887.20 5	\$,000
Current replacement costs: fixed assets	QG 3.7/-	501,435.32 1	\$,000
Revenue (all): water (<i>figure 1.6</i>)	QG 3.9 / F1	64,573.115	\$,000
Revenue: per cent residential revenue from water usage charges	-/F4	68	%
Revenue: water supply per connection	-/F5	944.5485	\$/connection
Costs: operating water	-/IF11	42,364.739	\$,000
Costs: operating per connection (<i>figure 1.7</i>)	QG 3.11/ F11	619.6937	\$/connection
Costs: maintenance	QG 3.13/-	3,050.484	\$,000
Current cost depreciation	QG 3.15/-	6,885.144	\$,000
Previous 5 year average annual renewals expenditure	QG 3.17/-	1,312.262	\$,000
Forecast 5 year average annual renewals expenditure	QG 3.19/-	896.122	\$,000
Economic real rate of return	F17	5.2318	%

Sewage Collection and Treatment

Indicator	Code QGKPI/NPR	Value	Units
Total capital expenditure	QG 3.2/ F15	4,883.673	\$,000
Capital expenditure per connection	-/F29	91.1014	\$/connection
Capital works grants	QG 3.4/ F27	583.786	\$,000
Nominal written down replacement cost: fixed assets	QG 3.6/ F10	511,060.4 76	\$,000
Current replacement costs: fixed assets	QG 3.8/-	829,881.1 77	\$,000
Revenue: all (<i>figure 1.8</i>)	QG 3.10/ F2	51,594.41 7	\$,000
Revenue per connection	-/F6	962.456	\$/connection
Costs: operating	-/IF12	17,386.47 5	\$,000
Costs: operating (<i>figure 1.9</i>)	QG 3.12/ F12	324.3322	\$/connection
Costs: maintenance	QG 3.14/-	7,663.403	\$,000
Current cost depreciation	QG 3.16	16,215.46 4	\$000
Previous 5 year average annual renewals expenditure	QG 3.18/-	10,888.17 4	\$,000
Forecast 5 year average annual renewals expenditure	QG 3.20/-	4,542.55	\$,000
Economic real rate of return	-/F18	3.52	%

Other

Indicator	Code QGKPI/NPR	Value	Units
Revenue: whole of utility (<i>figure 1.10</i>)	-/F3	116,167.53 3	\$,000
Revenue: whole of utility per connection	-/F7	1,699.2501	\$/connection
Community service obligation ratio	-/F8	0.0033	ratio
Costs: operating water & sewerage per connection	-/F13	944.0259	\$/connection
Capital expenditure: water & sewerage	-/F16	6,010.363	\$000
Economic real rate of return: water & sewerage	-/F19	4.14	%
Dividend	-/F20	6,967.414	\$,000
Dividend payout ratio	-/F21	75.0	%
Net debt to equity	-/F22	57.93	%
Interest cover ratio	-/F23	2.205	Ratio
Net profit after tax (NPAT)	-/F24	9,289.886	\$,000
Net profit after tax ratio	-/F30	7.997	%
Community service obligations	-/F25	377.975	\$,000

Workforce

Indicator	Code QGKPI/NPR	Value	Units
Total Full-Time Equivalent water and sewerage employees	QG 1.20/-	96	FTE's

Index 1 – Graphs

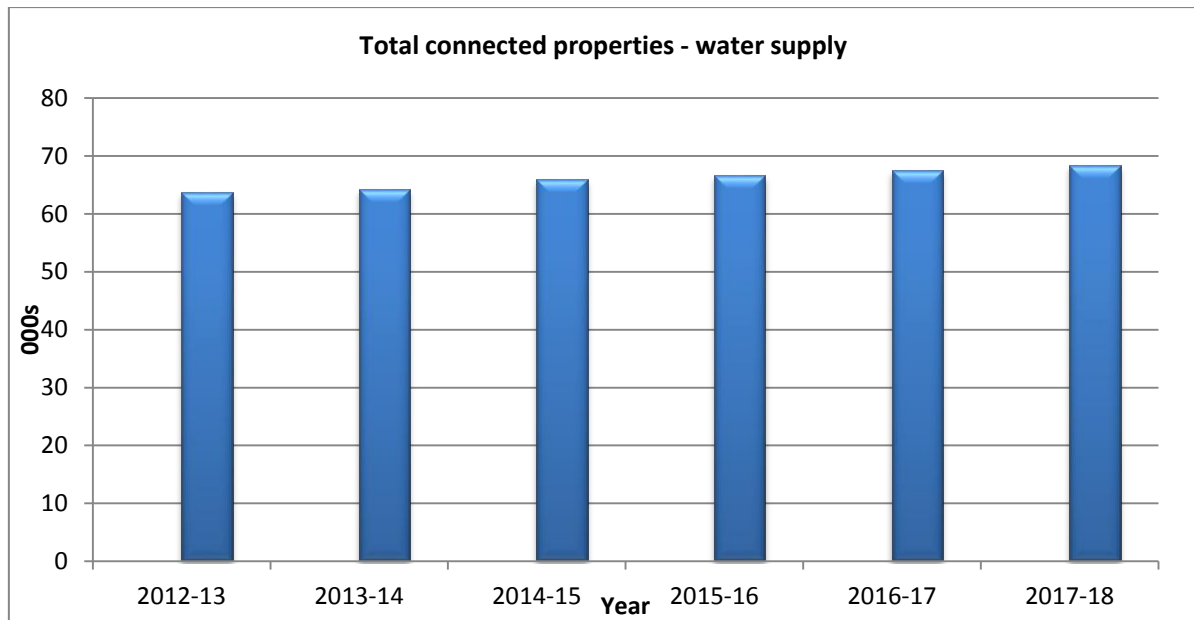


Figure 1.1 C4 - Total connected properties – water supply

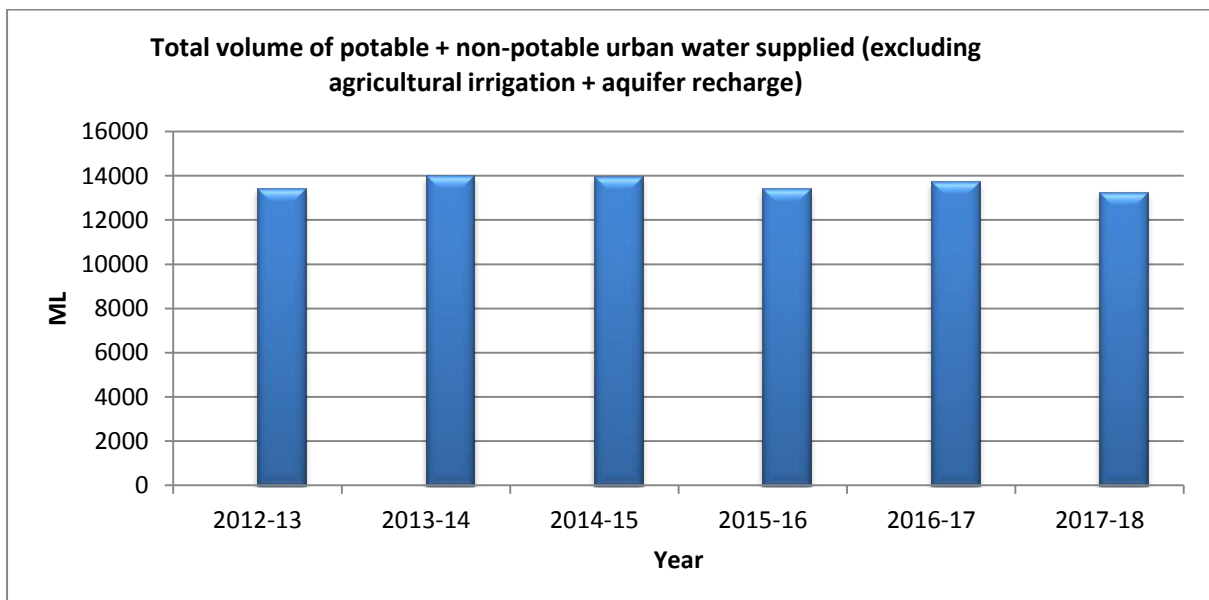


Figure 1.2 W11 - Total volume urban water supplied

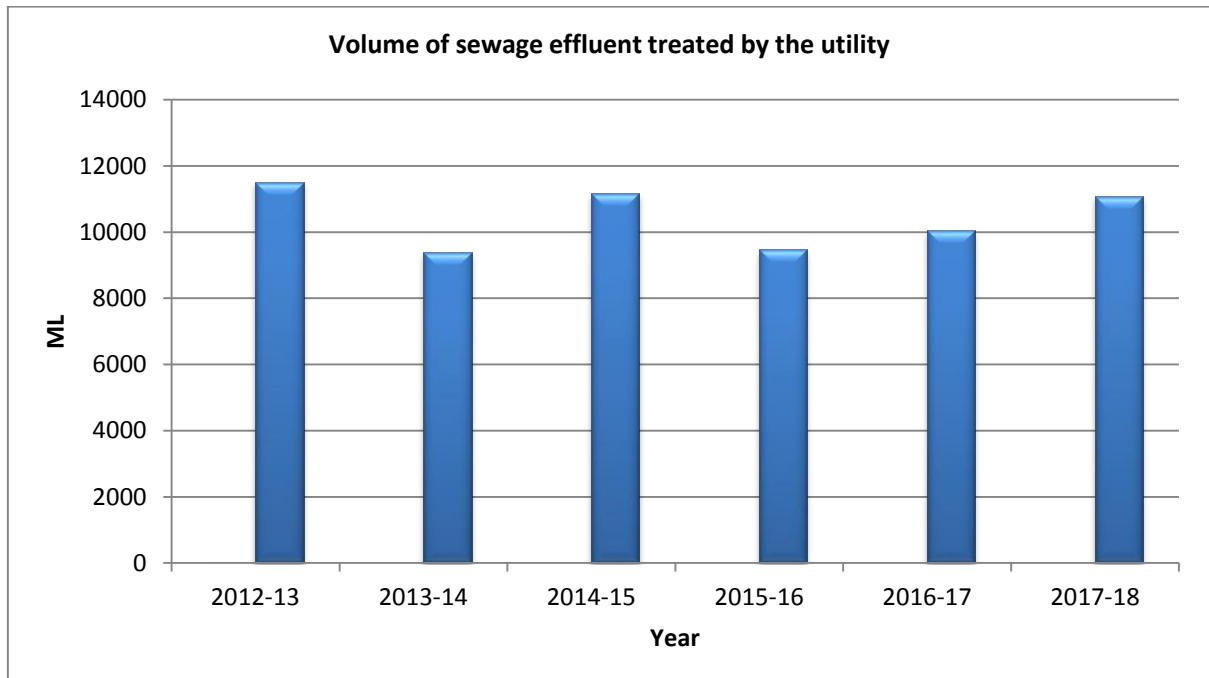


Figure 1.3 W18.5 - Volume of sewage effluent treated by the utility

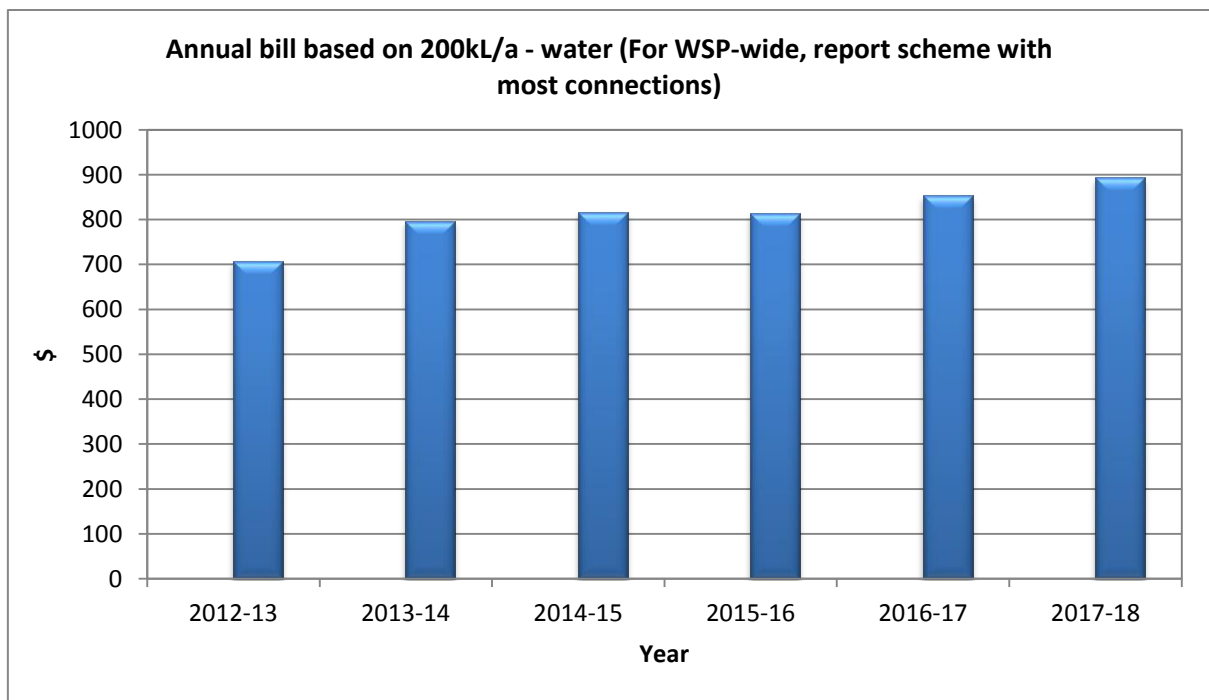


Figure 1.4 P2 - Annual bill based on 200kL/annum -Water

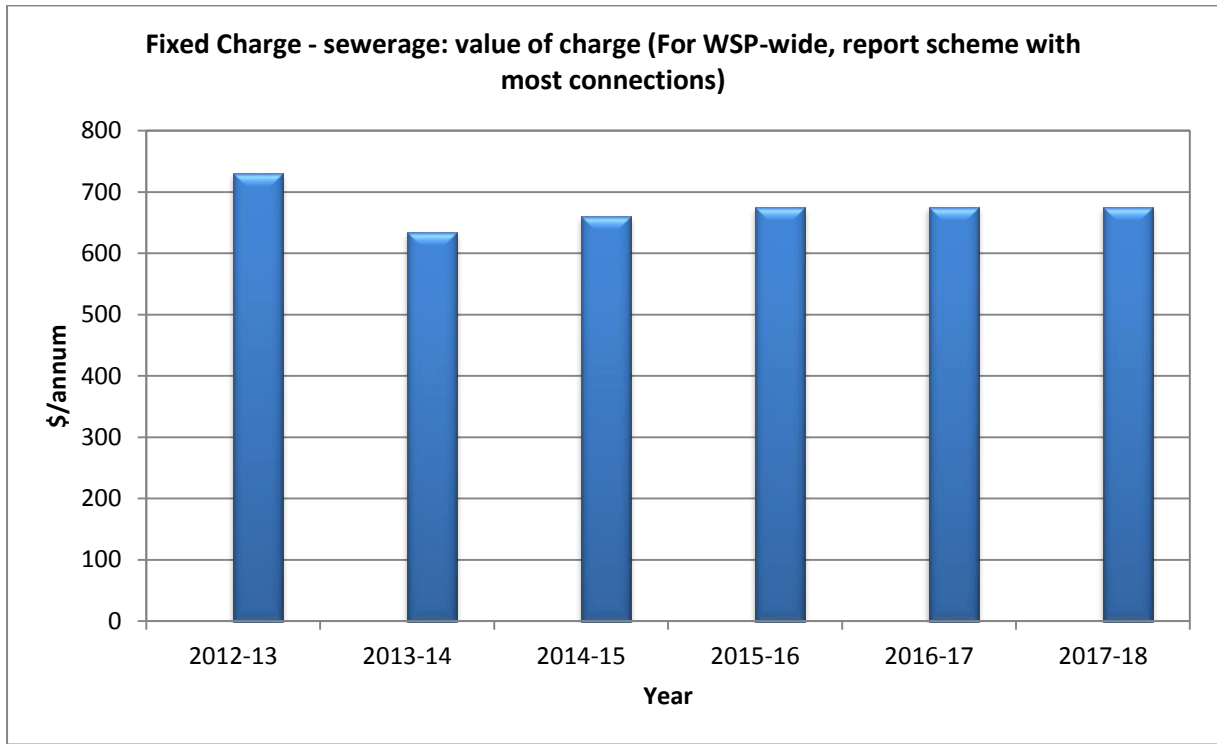


Figure 1.5 QG4.2/P4.1 - Fixed charge – sewerage

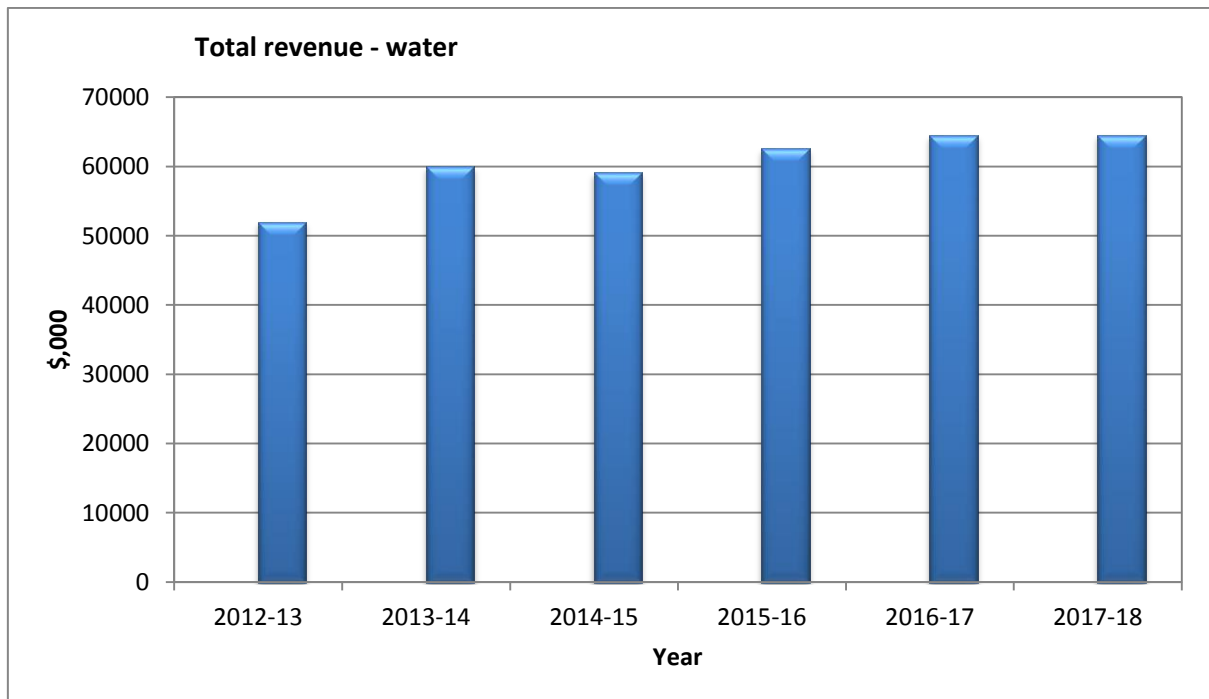


Figure 1.6 QG3.9/F1 - Total revenue – water

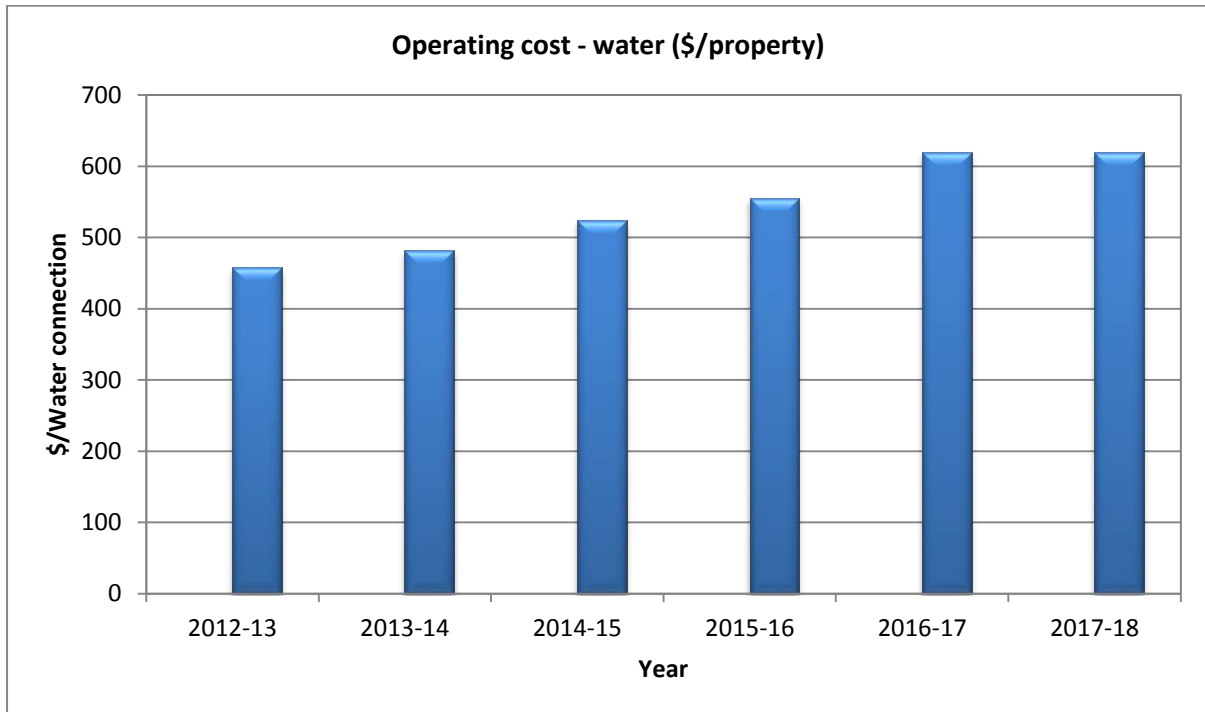


Figure 1.7 QG3.11/ F11 - Operating costs – water (\$/property)

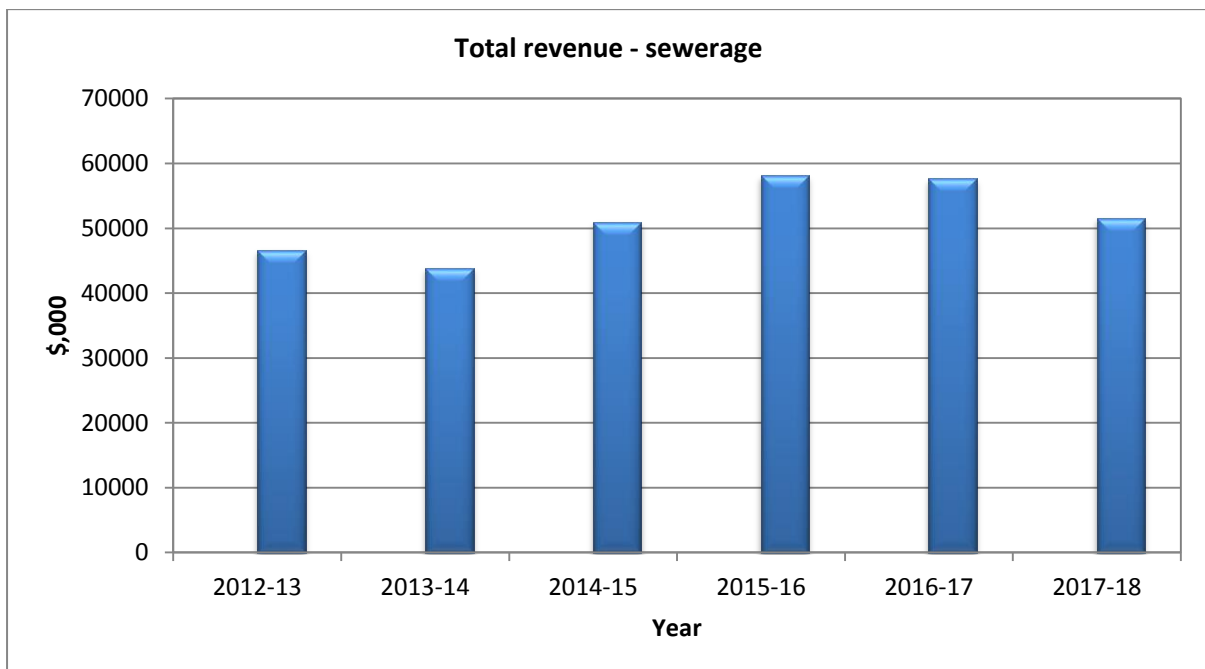


Figure 1.8 QG3.10/F2 - Total revenue – sewerage

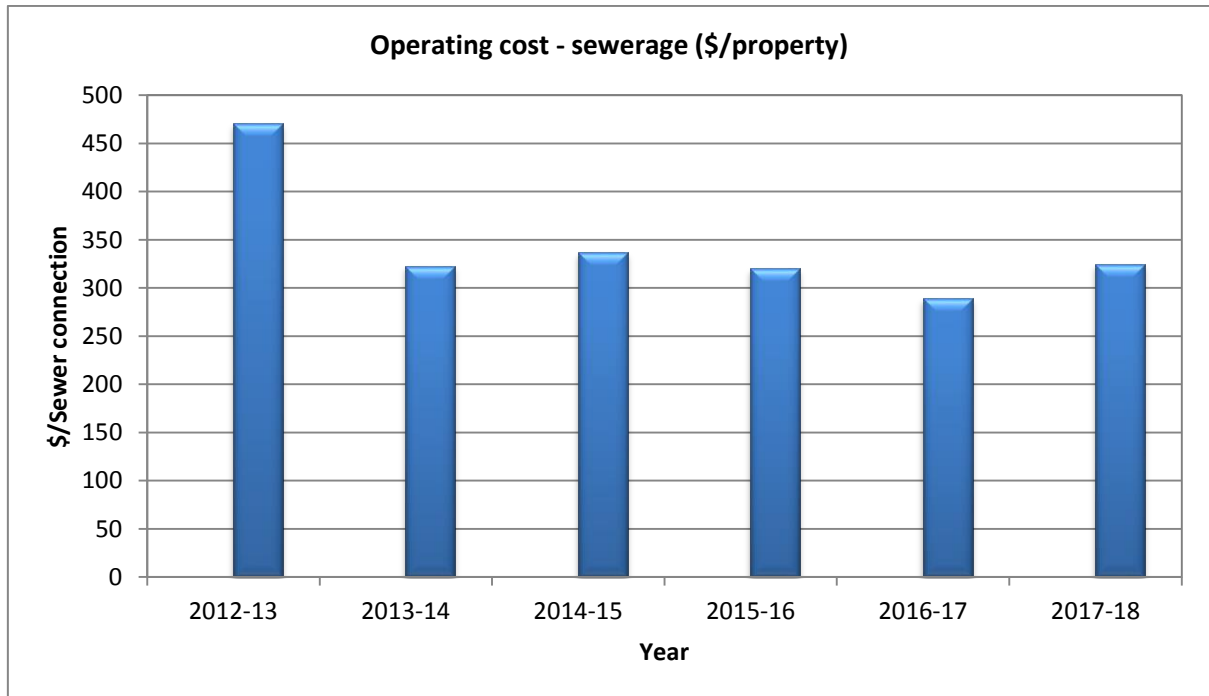


Figure 1.9 QG3.12/F12 - Operating costs – sewerage (\$/property)

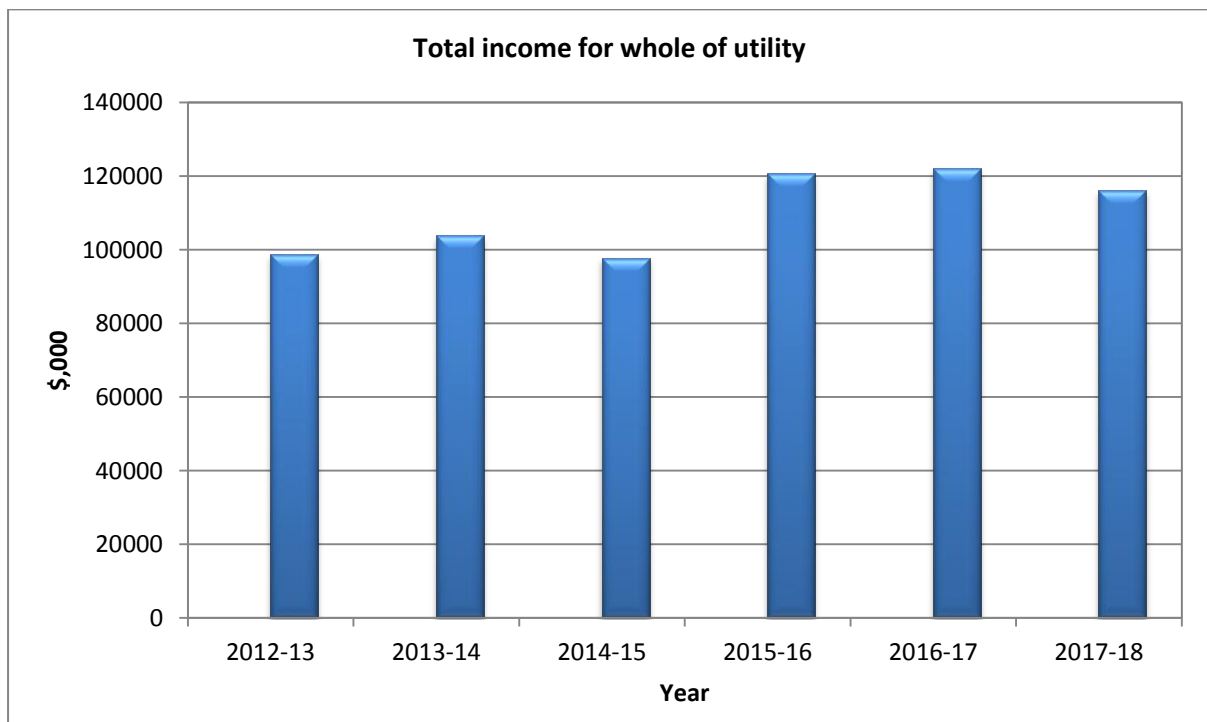


Figure 1.10 F3 - Total income for whole of utility

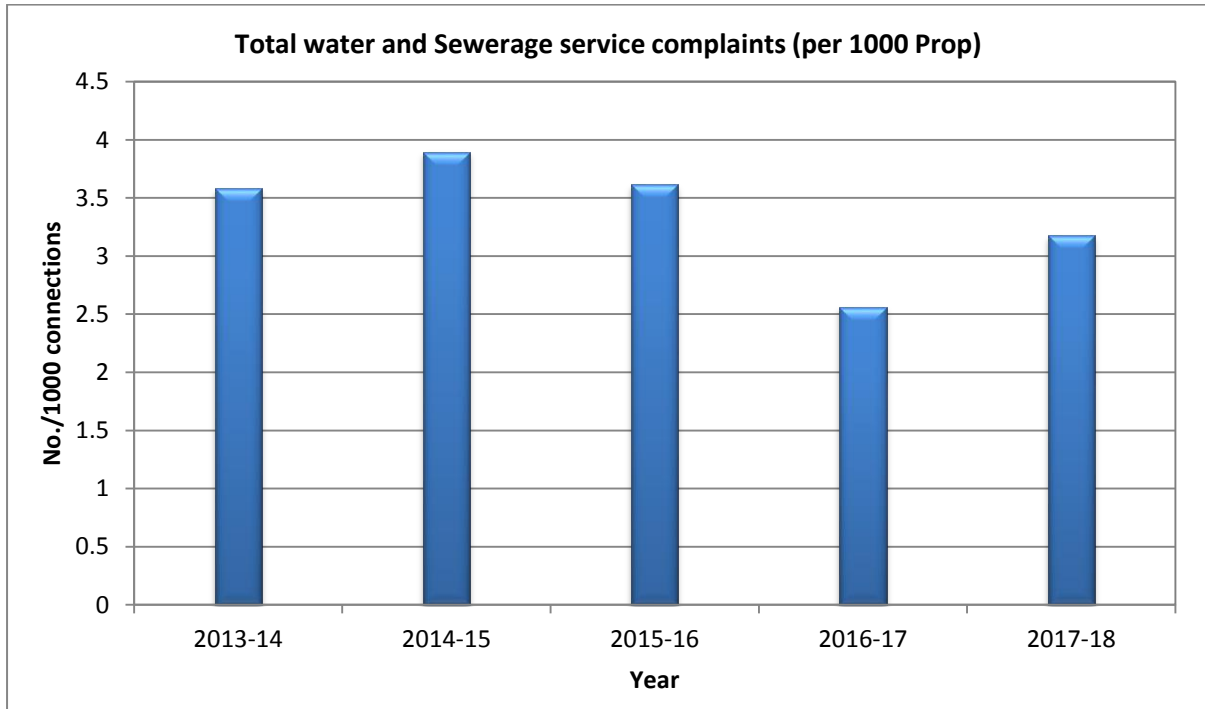


Figure 1.11 QG4.11/C13 – Total water and sewerage service complaints per 1000 properties

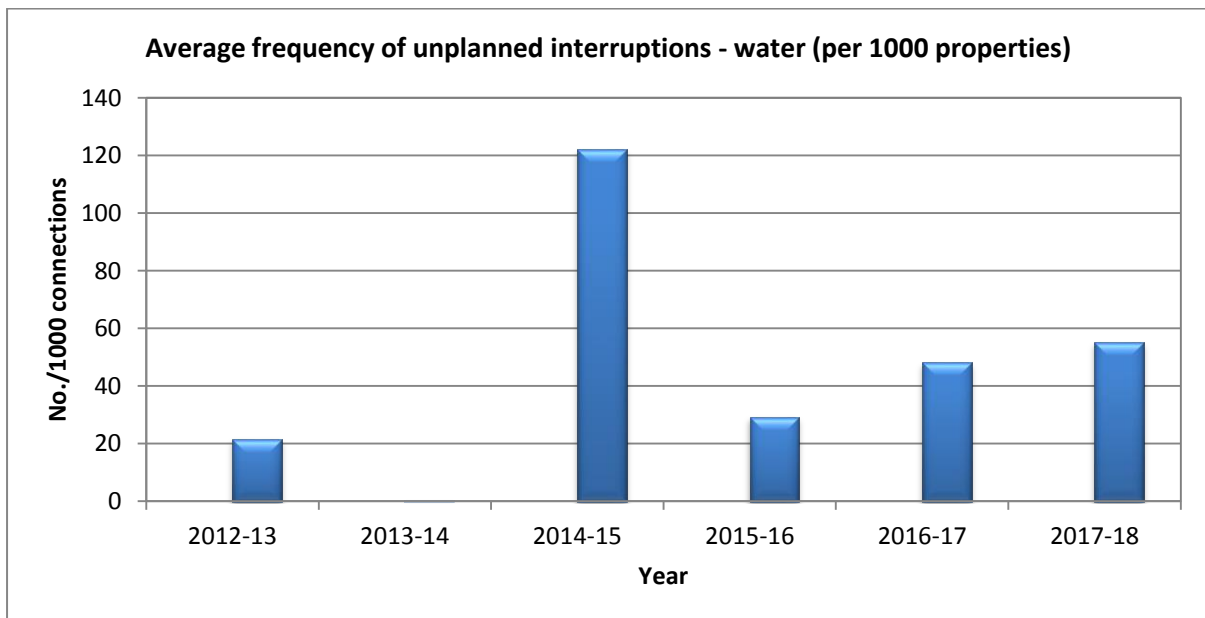


Figure 1.12 QG4.7/C17 - Average frequency of unplanned interruptions – water per 1000 properties

Index 2 - Queensland Government Key Performance Indicators

For additional information please refer to the relevant table in the '[Key Performance Indicators for Queensland Urban Water Service Providers: Definitions Guide](#)' published by the Department of Natural Resources, Mines and Energy.

Table 1: Queensland Government Key Performance Indicators

Queensland Government indicator code and title	NPR/SWIM Code
QG 1.1: Length of water mains	A2/AS2
QG 1.10: Volume water sourced: desalination marine water	W3.1/WA61
QG 1.11: Volume recycled sewage supplied: all	W26/WA26
QG 1.12: Volume water sourced	W7/WA7
QG 1.13: Connected residential properties - water supply	C2/CS2
QG 1.14: Connected non-residential properties - water supply	C3/CS3
QG 1.15: Connected residential properties - sewerage	C6/CS6
QG 1.16: Connected non-residential properties - sewerage	C7/CS7
QG 1.19: Volume of non-revenue water	W10.1/WA36
QG 1.2: Length of sewerage mains	A5/AS5
QG 1.20: Total Full-Time Equivalent water and sewerage services employees	-/WF1
QG 1.3: Number of sewage treatment plants	A4/AS4
QG 1.4a: Number of water treatment plants providing full treatment	A1/AS1
QG 1.5: Maximum daily demand	-/WA201
QG 1.6: Volume potable water produced/supplied into water supply system	W11.3/WA74
QG 1.7: Total drinking water storage volume	-/AS48
QG 1.8: Volume of water sourced: surface water	W1/WA1
QG 1.9a: Volume of water sourced: groundwater	W2/WA2
QG 1.9b: Volume of water sourced: imported	W5/WA45
QG 2.1: Months water supply remaining: 30 June	-/WS1
QG 2.2: Anticipated water availability to meet demand for next year	-/WS2
QG 2.3: Available contingency supplies	-/WS3
QG 2.4: Total anticipated water demand for next reporting year	-/WS4

Queensland Government indicator code and title	NPR/SWIM Code
QG 2.5: Total anticipated annual water demand in 5years time	-/WS5
QG 2.6: Anticipated capacity to meet demand in 5years time	-/WS6
QG 2.7: Planned supply system response	-/WS7
QG 2.8: Water restrictions (duration) If response >0 months, then triggers QG 2.9	-/WS10
QG 2.9: Water restrictions (severity) Only required if QG 2.8 response >0 months	-/WS9
QG 3.1: Capital expenditure: water supply	F14/FN14
QG 3.10: Revenue: all sewerage	F2/FN2
QG 3.11: Costs: operating water per connection	F11/FN11
QG 3.12: Costs: operating sewerage per connection	F12/FN12
QG 3.13: Costs: maintenance water	-/FN76
QG 3.14: Costs: maintenance sewerage	-/FN77
QG 3.15: Current cost depreciation: water	-/FN78
QG 3.16: Current cost depreciation: sewerage	-/FN79
QG 3.17: Previous 5 year average annual renewals expenditure: water	-/FN80
QG 3.18: Previous 5 year average annual renewals expenditure: sewerage	-/FN81
QG 3.19: Forecast 5 year average annual renewals expenditure: water	-/FN82
QG 3.2: Capital expenditure: sewerage	F15/FN15
QG 3.20: Forecast 5 year average annual renewals expenditure: sewerage	-/FN83
QG 3.3: Capital works grants: water	F26/FN26
QG 3.4: Capital works grants: sewerage	F27/FN27
QG 3.5: Nominal written-down replacement cost: fixed water assets	F9/FN9
QG 3.6: Nominal written-down replacement costs: fixed sewerage assets	F10/FN10
QG 3.7: Current replacement costs: fixed water assets	-/FN74
QG 3.8: Current replacement costs: fixed sewerage assets	-/FN75
QG 3.9: Revenue: all water	F1/FN1
QG 4.1(Text): Fixed charge: water description	-/PR5
QG 4.1(value): Fixed charge: water value	P1.2/PR3
QG 4.10: Water quality complaints per 1000 connections	C9/CS9

Queensland Government indicator code and title	NPR/SWIM Code
QG 4.11: Water and sewerage complaints (all) per 1000 connections	C13/CS13
QG 4.2(Text): Fixed charge: sewerage description	-/PR40
QG 4.2(value): Fixed charge: sewerage value	P4.1/PR31
QG 4.3: Annual bill based on 200 kl/annum water & sewerage	P7/PR47
QG 4.4: Typical residential bill: water & sewerage	P8/PR48
QG 4.5: Water main breaks per 100 km water main	A8/AS8
QG 4.6: Sewerage main breaks/chokes per 100 km sewer main	A14/AS39
QG 4.7: Average frequency unplanned interruptions: water	C17/CS17
QG 4.8: Percentage Customer Service Standards response target met: water incidents	-/CS66
QG 4.9: Percentage Customer Service Standards response target met: sewerage incidents	-/CS65

Index 3 - National Performance Reporting Key Performance Indicators

Service providers must report on all applicable indicators below as part of the National Performance Reporting (NPR) framework. Details of applicable NPR indicators and definitions can be sourced from the most current Reporting handbook, released by the Bureau of Meteorology <http://www.bom.gov.au/water/npr/>

Where the indicator has a correlating QG KPI, please refer to relevant table in the 'Key Performance Indicators for Queensland urban water service providers: Definitions guide' published by the Department of Natural Resources, Mines and Energy '[Key Performance Indicators for Queensland Urban Water Service Providers: Definitions Guide](#)'

Table 2: National Performance Reporting Key Performance Indicators

National Performance Reporting Indicator Code and Title	QG KPI/SWIM Code
W1: Volume of water sourced: surface water	QG 1.8/WA1
W2: Volume of water sourced: groundwater	QG 1.9a/WA2
W3.1: Volume of water sourced: desalination marine water	QG 1.10/WA61
W5: Volume of water sourced: imported	QG1.9b/WA45
W5.3: Volume potable +non-potable water imported	-/WA158
W6: Volume of recycled sewage imported	-/WA101
W7: Volume water sourced	QG 1.12/WA7
W8: Volume all water supplied: residential	-/WA8
W8.3: Volume potable + raw-PT water supplied: residential	-/WA206
W9: Volume all water supplied: non-residential	-/WA9
W9.3: Volume potable + raw-PT water supplied: non-residential	-/WA207
W10.1: Volume potable water supplied: non-revenue water	QG 1.19/WA36
W11: Volume water supplied: all	-/WA11
W11.3: Volume potable water produced/supplied into water supply system	QG 1.6/WA74
W12: Annual residential water supplied per connection	-/WA12
W13: Volume raw (untreated) water supplied: environmental flows	-/WA13
W14: Volume potable + raw-PT + recycled water exported	-/WA46
W14.3: Volume potable + raw-PT water exported	-/WA110
W15: Volume recycled sewage exported	-/WA15

National Performance Reporting Indicator Code and Title	QG KPI/SWIM Code
W16: Volume sewage collected: residential + non-trade	-/WA16
W17: Volume sewage collected: trade waste	-/WA17
W18: Volume sewage collected: residential + trade	-/WA18
W18.1: Volume sewage exported	-/WA66
W18.2: Volume sewage imported	-/WA67
W18.3: Volume sewage collected: sewer mining	-/WA68
W18.4: Volume sewage inflow measured at sewer treatment plant inlet	-/WA69
W18.5: Volume sewage treated	-/WA31
WA19: Volume sewage collected per connection	-/WA19
W20: Volume recycled sewage supplied: Residential	-/WA20
W21: Volume recycled sewage supplied: non-residential	-/WA21
W23: Volume recycled sewage supplied: environmental flows	-/WA23
W25.1: Volume recycled sewage supplied: aquifer recharge	-/WA73
W26: Volume recycled sewage supplied: all	QG 1.11/WA26
W27: Per cent sewage recycled	-/WA27
W28.4: Volume recycled stormwater supplied: residential	-/WA85
W28.5: Volume recycled stormwater supplied: non-residential	-/WA86
W29: Volume treated sewage disposal: All	-/WA215
W30: Wastewater losses: All	-/WA217
W31: Volume water returned to surface water or groundwater from water supply system	-/WA197
A1: Number water treatment plants providing full treatment	QG1.4a/AS1
A2: Length water mains	QG 1.1/AS2
IA11IA49: Length potable water mains only	-/AS54
A3: Connections served per km water main	-/AS3
A4: Number sewage treatment plants	QG: 1.3/AS4
A5: Length sewerage mains and channels	QG 1.2/AS5
A6: Connections served per km sewer main	-/AS6
IA8: Number water main breaks, bursts and leaks	-/AS14

National Performance Reporting Indicator Code and Title	QG KPI/SWIM Code
A8: Water main breaks per 100 km water main	QG 4.5/AS8
A9: Infrastructure Leakage Index (ILI)	-/AS9
A10: Real water losses: service connections	-/AS10
A11: Real water losses: water mains	-/AS11
IA14: Number sewerage main breaks/chokes	-/AS38
A14: Sewerage mains breaks/chokes per 100 km sewer main	QG 4.6/AS39
IA15: Number property connection sewer breaks/chokes	-/AS40
A15: Property connection sewer breaks/chokes per 1000 connections	-/AS41
IA10: Total service connections: Water	-/CS64
IA10AI11: Service connections per km water main	-/AS49
IA10AI11: Current annual real losses (CARL): potable water	-/AS52
C1: Population receiving water services	-/CS1
C2: Connected Residential properties: water	QG 1.13/CS2
C3: Connected non-residential properties: water	QG 1.14/CS3
C4: Total connected properties: water	-/CS4
C6: Connected residential properties: sewerage	QG 1.15/CS6
C7: Connected non-residential properties: sewerage	QG 1.16/CS7
C8: Total connected properties: sewerage	-/CS8
C9: Water quality complaints per 1000 connections	QG 4.10/CS9
IC10: Number water complaints: service	-/CS22
C10: Water service complaints per 1000 properties	-/CS10
IC11: Number sewerage complaints: service	-/CS21
C11: Sewerage service complaints per 1000 properties	-CS11
IC12: Number water and sewerage complaints: billing and accounts	-/CS23
C12: Billing and account complaints: water and sewerage per 1000 connections	-/CS12
IC13: Number water and sewerage complaints: all	-/CS62
IC13.1: Number water and sewerage complaints: all other	-/CS24
C13: All water and sewerage complaints per 1000 connections	QG 4.11/CS13

National Performance Reporting Indicator Code and Title	QG KPI/SWIM Code
C14: Per cent calls answered within 30 seconds	-/CS14
C15: Average duration of an unplanned interruption: water	-/CS15
IC17: Number customers affected by unplanned interruptions	-/CS61
C17: Average frequency unplanned interruptions: water	QG 4.7/CS17
IC18: Number restrictions applied for non-payment of water bill	-/CS48
C18: Restrictions applied for non-payment of water bill per 1000 connections	-/CS18
IC19: Number customers which legal action applied for non-payment of water bill	-/CS49
C19: Customers to which legal actions applied for non-payment of water bill per 1000 connections	-/CS19
IC9: Number water complaints: water quality	-CS20
IE1: Volume sewage treated: maximum primary level only	-/EN18
E1: Per cent sewage treated: maximum primary level only	-/EN1
IE2: Volume sewage treated: maximum secondary level only	-/EN19
E2: Per cent sewage treated: maximum secondary level only	-/EN2
E3: Per cent sewage treated: tertiary level	-/EN3
IE3: Volume sewage treated: tertiary level	-/EN20
E8: Per cent bio solids reused	-/EN8
IE9: Greenhouse gas emissions: water	/EN14
E9: Greenhouse gas emissions: water per 1000 connections	-/EN9
IE10: Greenhouse gas emissions: sewage	-/EN15
E10: Greenhouse gas emissions: sewage per 1000 connections	-/EN10
IE11: Greenhouse gas emissions: other	-/EN16
E11: Greenhouse gas emissions: other per 1000 connections	-/EN11
IE12: Greenhouse gas emissions: all	-/EN17
E12: Greenhouse gas emissions: all per 1000 water connections	-/E12
H1: water quality compliance guidelines used	-/HL1
H3: Per cent population where microbiological compliance achieved	-/HL3
H4: Number zones chemical compliance achieved	-/HL8

National Performance Reporting Indicator Code and Title	QG KPI/SWIM Code
H4a: Number chemical compliance zones tested	-/HL9
H5: Risk based drinking water management plan assessed externally	-/HL5
P1: Water pricing tariff structure: text	-/PR1
P1.12: Special levies: water value	-/PR23
P1.13: Revenue from water special levies retained by utility	-/PR25
P1.2: Fixed charge: water value	QG 4.1/PR3
P1.3: Usage charge 1 st step: value	-/PR6
P1.3a: Usage upper bound of 1 st step: KL	-/PR49
P1.4: Usage charge 2 nd step: value	-/PR8
P1.4a: Usage upper bound of 2nd step: KL	-/PR50
P1.5: Usage charge 3 rd step value	-/PR10
P1.5a: Usage upper bound of 3rd step: KL	-/PR51
P1.6: Usage charge 4 th step value	-/PR12
P1.6a: Usage upper bound of 4th step: KL	-/PR52
P1.7: Usage charge 5 th step value	-/PR14
P1.7a: Usage upper bound of 5 th step: KL	-/PR53
P1.8: Usage charge 6 th step value	-/PR16
P1.8a: Usage upper bound of 6 th step: KL	-/PR54
P2: Annual bill based on 200kL/a: water	-/PR43
P3: Typical residential bill: water	-/PR44
P4: Sewerage pricing tariff structure	-/PR4
P4.1: Fixed charge: sewerage value	QG 4.2/PR31
P4.2: Usage charge: sewerage value	-/PR32
P4.3: Special levies: sewerage value	-/PR33
P4.4: Revenue from sewerage special levies retained by utility	-/PR34
P5: Annual bill based on 200 kL/a: sewerage	-/PR45
P6: Typical residential bill: sewerage	-/PR46

National Performance Reporting Indicator Code and Title	QG KPI/SWIM Code
P7: Annual bill based on 200 kL/a water + sewerage	QG 4.3/PR47
P8: Typical residential bill: water + sewerage	QG 4.4/PR48
F1: Revenue: all water	QG 3.9/FN1
F2: Revenue: all sewerage	QG 3.10/FN2
F3: Revenue: whole of utility	-/FN3
F4: Per cent residential revenue from water usage charges	-/FN4
F5: Revenue: water supply per connection	Used in QG 6.1; QG 6.3/FN5
F6: Revenue: sewerage services per connections	Used in QG 6.1; QG 6.3/FN6
F7: Revenue: whole of utility per connection	-/FN7
F8: Community service obligation ratio	-/FN8
F9: Nominal written-down replacement costs: fixed water assets	QG 3.5/FN9
F10: Nominal written-down replacement costs: fixed sewerage assets	QG 3.6/FN10
IF11: Costs: operating water	-/FN32
F11: Costs: operating water per connection	QG 3.11/FN11
IF12: Costs: operating sewerage	-/FN33
F12: Costs: operating sewerage per connection	QG 3.12/FN12
F13: Costs: operating water + sewerage per connection	-/FN13
F14: Capital expenditure: water supply	QG 3.1/FN14
F15: Capital expenditure: sewerage	QG 3.2/FN15
F16: Capital expenditure: water and sewerage	-/FN16
F17: Economic real rate of return: water	-/FN17
F18: Economic real rate of return: sewerage	-/FN18
F19: Economic real rate of return: water and sewerage	-/FN19
F20: Dividend	-/FN20
F21: Dividend payout ratio	-/FN21
F22: Net debt to equity	-/FN22-
F23: Interest cover ratio	-/FN23

National Performance Reporting Indicator Code and Title	QG KPI/SWIM Code
F24: Net profit after tax (NPAT)	-/FN24
F30: Net profit after tax Ratio	-/FN36
F25: Community service obligations	-/FN25
F26: Capital works grants: water	QG 3.3/FN26
F27: Capital works grants: sewerage	QG 3.4/FN27
F28: Capital expenditure: water per connection	-/FN34
F29: Capital expenditure: sewerage per connection	-/FN35