2015/16 Residential Water and Wastewater Price Benchmarking Report

Large Queensland Service Providers



Outcomes Summary

AEC Group Pty Ltd (AEC) is an industry leader in the water and wastewater sector, having provided advice to a large number of service providers regarding their financial and pricing strategies over the past two decades. If you require assistance regarding cost recovery and/or charging structures, please don't hesitate to contact Gavin O'Donovan, Director and Principal Consultant, on (07) 3831 0577 or via gavin.odonovan@aecgroupltd.com.

Water Pricing

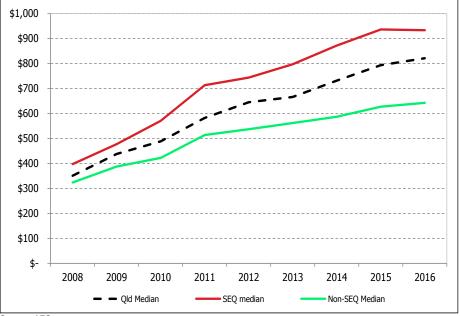
The Queensland industry median water charge for residential customers serviced by large local government utilities was calculated as:

- \$821.03 for a household consuming 200kL per annum (an increase of 3.5% on the prior year median of \$793.28); and
- \$1,423.33 for a household consuming 400kL per annum (an increase of 2.0% on the prior year median of \$1,395.42).

The South-East Queensland (SEQ) median charge decreased by 0.3% at 200kL consumption and increased by 1.1% at 400kL consumption, while the non-SEQ median charge increased by 2.5% at 200kL consumption and by 4.3% at 400kL consumption.

The following graph shows that the SEQ median charge at 200kL consumption has increased at a greater rate than the non-SEQ median charge in recent years, to the extent that the gap between the SEQ and non-SEQ median charges has increased from \$74 in 2007/08 to \$291 in 2015/16. However, the gap actually narrowed in 2015/16 as a result of a downward review in the State Government Water Grid bulk water price and some distribution/retail price freezes in a number of SEQ service areas.

Median Residential Water Bill over Time for a Property Consuming 200kL, 2007/08-2015/16



Source: AEC

Looking forward:

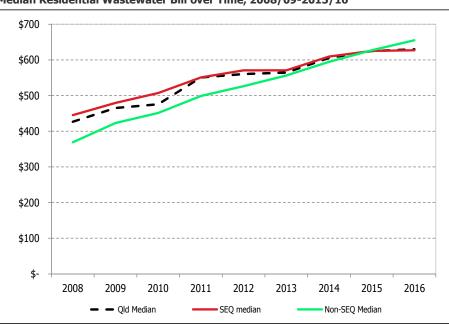
- Water price increases might continue to moderate in SEQ on average as a number of service areas have already reached the end of the bulk water price path.
- Water price increases in non-SEQ might increase at a greater rate than in SEQ as a result of some significant bulk water price increases being proposed for selected service areas.



Wastewater Pricing

The Queensland industry median wastewater charge for residential customers serviced by large local government utilities was calculated as \$629.67, an increase of 0.7% on the prior year median of \$625.00. The SEQ median charge increased by 0.3%, while the non-SEQ median charge increased by 4.5%.

The following graph shows that annual increases in non-SEQ median charges have generally been greater than those in SEQ, resulting in the non-SEQ median overtaking the SEQ median in 2014/15 and being presently \$28 higher than the SEQ median.





Source: AEC

Looking forward, wastewater price increases are anticipated to continue to be relatively higher in non-SEQ regions with costs being spread over a smaller customer base.



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1. Water Pricing Levels

Base

Water Price Benchmarking for Large Service Providers in Queensland, 2015/16

Consumption

The following table provides detailed information on the prices charged for a water service in 2015/16 by selected large service providers in Queensland on a residential property.

Discount Notes



Provider & Location



SOUTH-EAST QUE	ENSLAND (SEQ) WATER GRID		
QLD Urban Utilities Brisbane	\$187.20	State Bulk = \$2.658/kL 0-252kL = \$0.747261/kL	0%	 In each region with consumption tiers, the tiers are annual equivalents, with the actual consumption tier applied each quarter calculated on a litres per day equivalent (i.e. dividing the relevant tier threshold by 27 for the per day the per the per
Ipswich	\$313.68	252-304kL = \$0.793247/kL >304kL = \$1.414047/kL State Bulk = \$2.594/kL 0-316kL = \$0.908210/kL 317-472kL = \$1.448537/kL >472kL = \$1.839411/kL	0%	 365 days and then multiplying by the actual number of days between meter reads) In the Brisbane region, non-residential customers are levied different consumption charges (\$0.896724/kL, \$1.024828/kL and \$1.502305/kL) and feature different first and second consumption tiers (196kL and 296kL)
Lockyer Valley	\$313.68	State Bulk = \$2.681/kL 0-296kL = \$0.252919/kL >296kL = \$1.218610/kL	0%	 In the Ipswich region, non-residential use is subject to a two-tier charging system using the first tier residential threshold as the applicable tier threshold (slightly different consumption charges to the first
Scenic Rim	\$313.68	State Bulk = \$2.681/kL >0kL = \$0.931201/kL	0%	and third residential tiers are adopted: \$0.920016 and \$1.863325, with the bulk water charge also applicable)
Somerset	\$313.68	State Bulk = \$2.681/kL 0-296kL = \$0.264415/kL >296kL = \$0.609304/kL	0%	• In the Ipswich region, connected properties that are not metered are subject to an annual charge of \$1,130.04
Unitywater Moreton Bay	\$304.51	State Bulk = \$2.681/kL 0-300kL = \$0.667/kL >300kL = \$1.333/kL	0%	• The first tier threshold is an annual equivalent, with the actual consumption charge levied quarterly on a first tier threshold of 822 litres per day times the number of days between meter reads
Sunshine Coast, Noosa	\$240.46	State Bulk = \$2.272/kL 0-300kL = \$0.667/kL >300kL = \$1.333/kL	0%	
Gold Coast	\$212.08	State Bulk = \$2.68/kL >0kL = \$1.09/kL	0%	 The base charge for 20mm non-residential connections is higher than that for residential properties at \$377.76 Class A+ recycled water is available in the Pimpama Coomera Dual Reticulation Area at \$1.76/kL
Logan	\$294.20	State Bulk = \$2.6810/kL >0kL = \$1.0053/kL	0%	
Redland	\$263.60	State Bulk = \$2.161/kL >0kL = \$0.59/kL	0%	The consumption charge for non-residential connections is a single tier charge set at \$1.35/kL (excluding the State bulk water charge of \$2.161/kL which also applies)
OTHER QUEENSL	AND			
Bundaberg				The tier thresholds are annual equivalents, with the actual consumption charge levied six-monthly on a
Potable	\$408.00	0-300kL = \$1.12/kL >300kL = \$1.84/kL	0%	first tier threshold of 150kL per six months
Non-potable	\$326.00	0-300kL = \$0.90/kL >300kL = \$1.47/kL	0%	
Cairns	\$252.30	\$1.13/kL	0%	 Commercial water consumption charges are higher than residential charges at \$1.20/kL (excluding rural productive properties which are charged at \$1.13/kL) Water supplied to Far North Queensland Ports Group Ltd for shipping is charged at \$1.66/kL Where recycled water is available, an access charge of \$61.16 is applicable in addition to a consumption charge of \$0.56/kL
Fraser Coast	\$485.00	\$1.71/kL	7.5%	The new water consumption charge applies from 1 November through to 31 October the following year



Outcome Driven

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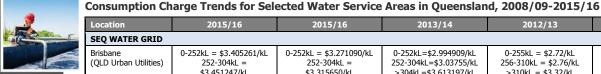
Provider & Location	Base	Consumption	Discount	Notes
Gladstone Lake Awoonga Scheme	\$461.00	\$1.65/kL	10% (base)	• Bulk water from the Lake Awoonga Scheme is supplied by the Gladstone Area Water Board (GAWB), which is subject to formal pricing reviews by the Queensland Competition Authority
Miriam Vale/Bororen	\$518.00	\$3.69/kL	10% (base)	
Agnes Water/1770	\$518.00	\$3.74/kL	10% (base)	
Beecher/Burua, Tuckers Road	\$461.00	\$1.83/kL	10% (base)	
Gympie	\$380.92	0-250kL = \$1.06/kL >250kL = \$1.90/kL	5% Jul-Dec 10% Jan-Jun	• Discount is set at 5% for July to December 2015 and 10% January to June 2016.
Livingstone Capricorn Coast Caves/Marlborough Nerimbera Ogmore	\$575.60 \$397.30 \$378.90 \$333.30	0-300kL = \$0.770/kL 301-600kL = \$1.180/kL >600kL = \$2.380/kL	10% (base)	 The application of the consumption tiers is on a cumulative basis, such that the second and third tiers are only levied when they are reached through the year rather than being apportioned to each quarterly meter read Non-residential properties are only levied a single tier water consumption charge of \$1.760/kL
Mackay	\$348.35	0-300kL = \$1.70/kL >300kL = \$2.55/kL	10% (base)	• The first tier threshold is an annual equivalent, with the actual consumption charge levied six-monthly on a first tier threshold of 150kL per six months
Rockhampton Rockhampton Gracemere Mount Morgan	\$352.30 \$375.20 \$386.70	0-300kL = \$0.71/kL 301-600kL = \$1.11/kL >600kL = \$2.21/kL	10% (base)	 The application of the consumption tiers is on a cumulative basis, such that the second and third tiers are only levied when they are reached through the year rather than being apportioned to each quarterly meter read Non-residential properties are only levied a single tier water consumption charge of \$1.65/kL
Toowoomba District Connections to Non-Toowoomba Bulk Water Supply District Connections to Toowoomba Bulk Water Supply	\$430.00 \$590.00	0-250kL = \$1.08/kL >250kL = \$1.89/kL 0-200kL = \$2.20/kL >200kL = \$3.47/kL	10% 10%	 The tiers are annual equivalents, with the actual consumption charge levied six-monthly on first and second tier thresholds of 50% of these annual equivalents per six months The consumption tier thresholds applied to a property increase with the size of the water connection
District Connections to Low Flow Supply	\$295.00	0-200kL = \$2.20/kL >200kL = \$3.47/kL	10%	
District Connections to Non-Potable Supply	\$215.00	0-250kL = \$0.54/kL >250kL = \$0.95/kL	10%	
Townsville Standard Plan	\$739.00	772kL allocation >772kL = \$2.83/kL	0%	 The non-residential base charges is set higher than the residential base charge at \$351.00 The non-residential consumption charge is set higher than the water watchers residential charge at \$2.76/kL
Water Watchers Plan	\$337.00	\$1.35/kL	0%	φ2.7 U/KL

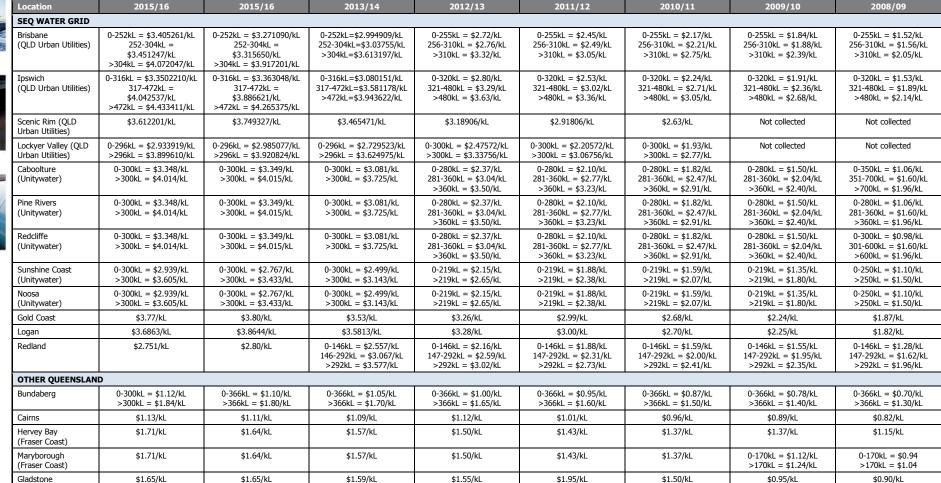
Source: AEC, assorted service providers



Water Consumption Charge Trends 2.

The following table outlines the gross consumption charges adopted by selected water service providers in Queensland since 2007/08.







2015/16 Residential Water and Wastewater Price Benchmarking – Large Queensland Service Providers

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Location	2015/16	2015/16	2013/14	2012/13	2011/12	2010/11	2009/10	2008/09
Gympie	0-250kL = \$1.06/kL >250kL = \$1.90/kL	0-250kL = \$1.03/kL >250kL = \$1.85/kL	0-250kL = \$1.00/kL >250kL = \$1.80/kL	0-250kL = \$0.95/kL >250kL = \$1.64/kL	0-250kL = \$0.90/kL >250kL = \$1.50/kL	0-250kL = \$0.80/kL >250kL = \$1.50/kL	0-250kL = \$0.70/kL >250kL = \$1.50/kL	0-250kL = \$0.60/kL >250kL = \$1.50/kL
Yeppoon (Livingstone)	0-300kL = \$0.77/kL 301-600kL = \$1.18/kL >600kL = \$2.38/kL	0-300kL = \$0.73/kL 301-600kL = \$1.12/kL >600kL = \$2.26/kL	0-300kL = \$0.66/kL 301-600kL = \$1.01/kL >600kL = \$2.04/kL	0-300kL = \$0.62/kL 301-600kL = \$0.96/kL >600kL = \$1.93/kL	0-300kL = \$0.61/kL 301-600kL = \$0.95/kL >600kL = \$1.83/kL	0-300kL = \$0.59/kL 301-600kL = \$0.92/kL >600kL =\$1.77/kL	0-300kL = \$0.55/kL 301-600kL = \$0.86/kL >600kL =\$1.66/kL	0-400kL = \$0.35/kL >400kL = \$1.20/kL
Mackay	0-300kL = \$1.70/kL >300kL = \$2.55/kL	0-300kL = \$1.70/kL >300kL = \$2.55/kL	0-300kL = \$1.60/kL >300kL = \$2.40/kL	0-300kL = \$1.49/kL >300kL = \$2.25/kL	0-300kL = \$1.40/kL >300kL = \$2.11/kL	0-300kL = \$1.33/kL >300kL = \$2.01/kL	0-300kL = \$1.13/kL >300kL = \$1.70/kL	0-300kL = \$1.00/kL >300kL = \$1.50/kL
Rockhampton	0-300kL = \$0.71/kL 301-600kL = \$1.11/kL >600kL = \$2.21/kL	0-300kL = \$0.69/kL 301-600kL = \$1.08/kL >600kL = \$2.16/kL	0-300kL = \$0.67/kL 301-600kL = \$1.04/kL >600kL = \$2.09/kL	0-300kL = \$0.62/kL 301-600kL = \$0.96/kL >600kL = \$1.93/kL	0-300kL = \$0.59/kL 301-600kL = \$0.91/kL >600kL = \$1.83/kL	0-300kL = \$0.57/kL 301-600kL = \$0.88/kL >600kL = \$1.77/kL	0-300kL = \$0.53/kL 301-600kL = \$0.83/kL >600kL = \$1.66/kL	0-300kL = \$0.48/kL 301-600kL = \$0.75/k >600kL = \$1.50/kL
Toowoomba	0-200kL = \$2.20/kL >200kL = \$3.47/kL	0-200kL = \$2.20/kL >200kL = \$3.47/kL	0-200kL = \$2.20/kL >200kL = \$3.47/kL	0-200kL = \$2.10/kL >200kL = \$3.30/kL	0-200kL = \$2.10/kL >200kL = \$3.30/kL	0-200kL = \$1.50/kL >200kL = \$2.80/kL	0-200kL = \$1.50/kL >200kL = \$2.80/kL	0-200kL = \$0.80/kL 201-500kL = \$1.50/k >500kL = \$3.00/kL
Townsville	772kL allocation >772kL = \$2.83/kL* <i>OR</i> \$1.35/kL**	772kL allocation >772kL = \$2.79/kL* <i>OR</i> \$1.33/kL**	772kL allocation >772kL = \$2.74/kL* <i>OR</i> \$1.30/kL**	772kL allocation* >772kL = \$2.61/kL* <i>OR</i> \$1.24/kL**	772kL allocation* >772kL = \$2.49/kL* <i>OR</i> \$1.18/kL**	\$0.65/kL	0-772kL = \$0.69/kL >772kL = \$2.12/kL	772kL allocation >772kL = \$2.12/kL
Thuringowa (Townsville)	772kL allocation >772kL = \$2.83/kL* <i>OR</i> \$1.35/kL**	772kL allocation >772kL = \$2.79/kL* <i>OR</i> \$1.33/kL**	772kL allocation >772kL = \$2.74/kL* <i>OR</i> \$1.30/kL**	772kL allocation* >772kL = \$2.61/kL* <i>OR</i> \$1.24/kL**	772kL allocation* >772kL = \$2.49/kL* <i>OR</i> \$1.18/kL**	\$0.65/kL	0-772kL = \$0.69/kL >772kL = \$2.12/kL	0-882kL = \$0.60/kl >882kL = \$2.12/kL

Source: AEC, assorted service providers Notes: *Standard Plan, **Water Watchers Plan

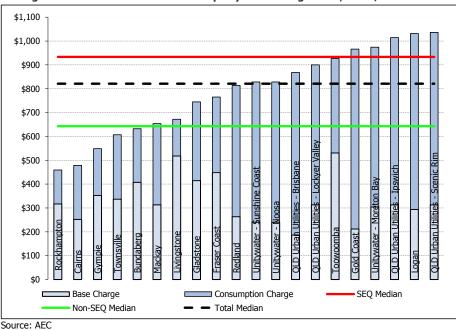






3. Comparison of Water Charges

The graph below compares a residential water bill at 200kL consumption (net of discount), selecting the main area/s of supply within each region. The median charge is \$821.03, 3.5% higher than the prior year (\$793.28). The SEQ median charge is \$933.27 (0.3% lower than the prior year of \$936.53), which is 45% higher than the non-SEQ median charge of \$642.76 (2.5% higher than the prior year of \$626.97).

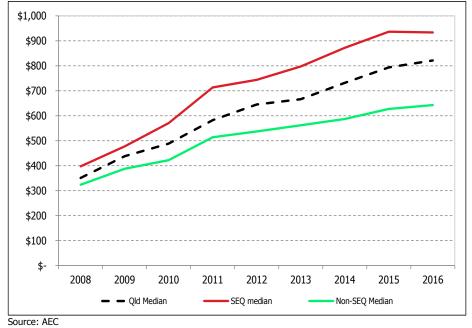


Average Residential Water Bill for a Property Consuming 200kL, 2015/16

Notes: Water Watchers Plan used for Townsville residential bill calculation.

The graph below maps SEQ and non-SEQ median charges for a property consuming 200kL per annum over time. The SEQ median charge has increased at a greater rate than the non-SEQ median charge, to the extent that the gap between the two has increased from \$74 in 2007/08 to \$291 in 2015/16. The gap actually narrowed in 2015/16 by \$19 as a result of a downward review in the State Government SEQ Water Grid bulk water price and some distribution/retail price freezes in a number of SEQ service areas.

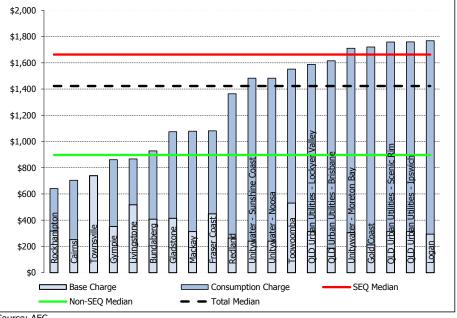
Median Residential Water Bill over Time for a Property Consuming 200kL, 2007/08-2015/16





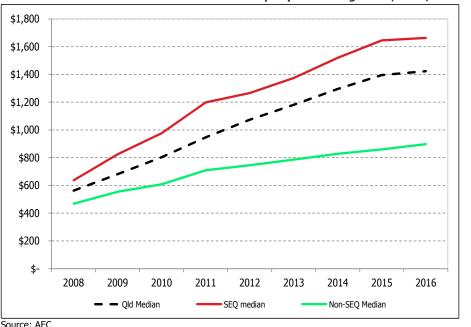
Outcome Driven

The graph below compares a residential water bill at consumption of 400kL (net of discount), selecting the main area/s of supply within each region. The median charge is \$1,423.33, 2.0% higher than the prior year (\$1,395.42). The SEQ median charge is \$1,663.01 (1.1% higher than the prior year of \$1,645.60), which is 85% higher than the non-SEQ median charge of \$897.52 (4.3% higher than the prior year of \$860.16).



Average Residential Water Bill for a Property Consuming 400kL, 2015/16

The graph below maps SEQ and non-SEQ median residential charges for a property consuming 400kL per annum over time. The SEQ median charge has increased at a greater rate than the non-SEQ median charge, to the extent that the gap between the two has increased from \$169 in 2007/08 to \$765 in 2015/16. The gap actually narrowed in 2015/16 by \$20 as a result of a downward review in the State Government SEQ Water Grid bulk water price and some distribution/retail price freezes in a number of SEQ service areas.



Median Residential Water Bill over Time for a Property Consuming 400kL, 2007/08-2015/16



Source: AEC

Notes: Standard Plan used for Townsville residential bill calculation.

Wastewater Pricing Levels 4.

The following table provides information on the prices charged for a wastewater (or sewerage) service in 2015/16 by selected large service providers in Queensland on a residential property.

Wastewater Price Benchmarking for Large Service Providers in Queensland, 2015/16

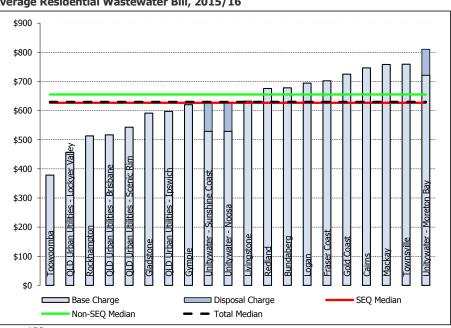
Provider & Location	Charge	Discount	Comments
SEQ ^(a)	onargo	Bibcount	
OLD Urban Utilities			• In the Brisbane region, a "Reduced Access" sewerage charge
Brisbane	\$516.72	0%	of \$192.36 is levied on properties if they are an allotment which is a paved road used to access a number of adjoining
Ipswich	\$597.12	0%	properties and is exclusively for vehicle and pedestrian access, or a lot on a community titles scheme and used for a car parking space, storage cupboard, storage unit, advertising
Lockyer Valley	\$456.96	0%	 hoarding or purposed of a like nature In the Lockyer Valley region, additional pedestal charges apply
Scenic Rim	\$542.88	0%	to residential premises at \$345.36 per pedestal and vacant land charges are generally set at \$250.80 per annum
Somerset – Lowood, Fernvale, Esk, Toogoolawah	\$542.88	0%	 In Scenic Rim, vacant land is levied a reduced charge of \$308.16 In the Somerset region, vacant land charges are \$381.96 in
Somerset – Kilcoy	\$432.48	0%	the Kilcoy service area and \$298.80 in all other service areas
Unitywater Moreton Bay Region	\$721.39 + 0-270kL = \$0.667/kL	0%	 Sewage discharges are determined by applying a discharge factor of 90% to measured water consumption, and are capped at 270kL per residence
Sunshine Coast and Noosa	\$528.87 + 0-270kL = \$0.667/kL	0%	
Gold Coast	\$725.12	0%	
Logan	\$694.40	0%	 Properties connected to a Common Effluent Disposal scheme are levied a charge of \$555.52
Redland	\$675.75	0%	 Developed residential and vacant residential properties are charged for 25 sewer units with the unit charge being \$27.03
OTHER QUEENSLAND			
Bundaberg	\$678.00	0%	
Cairns	\$746.60	0%	 Vacant lots are levied a reduced charge of \$594.40 Standard commercial charges per pedestal are applied for connections servicing common property (e.g. toilet servicing swimming pool area or foyer)
Fraser Coast	\$759.00	7.5%	
Gladstone			
Gladstone	\$657.00	10%	
Boyne Island, Tannum Sands, Calliope	\$734.00	10%	
Agnes Water/1770	\$874.00	10%	
Gympie	\$670.40	5% Jul-Dec 10% Jan-Jun	 Discount is set at 5% for July to December 2015 and 10% January to June 2016.
Livingstone	\$702.80	10%	Vacant land is levied a reduced charge of \$667.60
Mackay	\$842.45	10%	 Properties connected to the North Eton Biocycle system are levied a charge of \$717.00
Rockhampton			• Vacant land within each district is levied a reduced charge as
Rockhampton	\$570.20	10%	follows: Rockhampton \$541.80, Gracemere \$708.00 and Mount Morgan \$653.70
Gracemere	\$745.30	10%	
Mount Morgan	\$688.10	10%	
Toowoomba	\$420.40	10%	 Additional charges are levied on properties with greater than four pedestals at a rate of \$210.20 per additional pedestal Residential properties connected to a common effluent drainage sewerage system are levied a charge of \$210.20, plus \$105.10 for each pedestal in excess of four Vacant land is levied a reduced charge of \$210.20
Townsville	\$759.00	0%	Vacant land is levied a reduced charge of \$683.00

Source: AEC, assorted service providers Notes: (a) The same classifications as that adopted for water (i.e. SEQ Water Grid versus Other Queensland) are retained for wastewater charging for consistency.



Comparison of Wastewater Charges 5.

The graph below compares a residential wastewater bill (net of discount), selecting the main area/s of supply within each region. The median charge is \$629.67, 0.7% higher than the prior year (\$625.00). The SEQ median charge is \$626.82 (0.3% higher than the prior year of \$625.00), which is 4% lower than the non-SEQ median charge of \$655.26 (4.5% higher than the prior year of \$627.00).



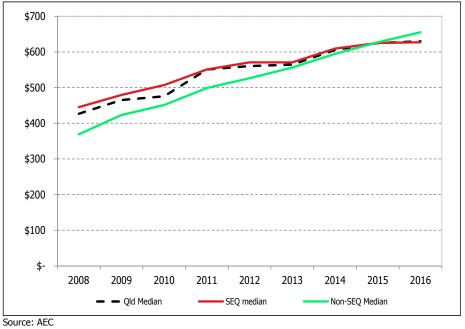
Average Residential Wastewater Bill, 2015/16

Source: AEC

Notes: * Average residential discharge levels of 133kL and 147kL are assumed for Moreton Bay and Sunshine Coast/Noosa, respectively, based on the average of monthly observations from SEQWater published water consumption data multiplied by the applicable residential property discharge factor of 90%.

The graph below maps SEQ and non-SEQ median charges for a residential property over time. The non-SEQ median charge has generally increased at a greater rate than the SEQ median charge, resulting in the non-SEQ median overtaking the SED median in 2014/15 and being presently \$28 higher than the SEQ median.

Median Residential Wastewater Bill over Time, 2008/09-2015/16





2015/16 Residential Water and Wastewater Price Benchmarking – Large Queensland Service Providers

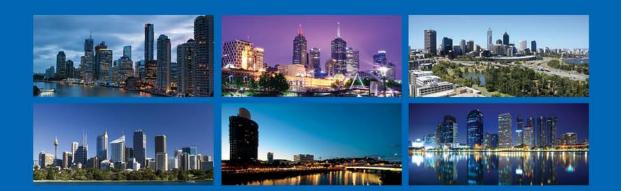






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