

SEWERAGE, TRADE WASTE & PROPERTY-BASED CHARGING

Issues Paper No. 3

Inquiry into the reform of SA Water's drinking water and sewerage prices

August 2013



REQUEST FOR SUBMISSIONS

The Essential Services Commission of SA (**the Commission**) invites written submissions from all members of the community in relation to the issues raised in this Issues Paper. Written comments should be provided by **5.00 p.m., Friday 8 November 2013**. It is highly desirable for an electronic copy of the submission to accompany any written submission.

It is Commission's policy to make all submissions publicly available via its website (www.escosa.sa.gov.au), except where a submission either wholly or partly contains confidential or commercially sensitive information provided on a confidential basis and appropriate prior notice has been given.

The Commission may also exercise its discretion not to exhibit any submission based on their length or content (for example containing material that is defamatory, offensive or in breach of any law).

Responses to this paper should be directed to:

Sewerage, Trade Waste & Property-based Charging - Inquiry into the reform of SA Water's drinking water and sewerage prices

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The Essential Services Commission of South Australia is the independent economic regulator of the electricity, gas, ports, rail and water industries in South Australia. The Commission's primary objective is the *protection of the long-term interests of South Australian consumers with respect to the price, quality and reliability of essential services*. For more information, please visit www.escosa.sa.gov.au.

THE ISSUE

SA Water provides sewerage services¹ to approximately 1.24 million² people in South Australia. It provides these services to both residential (household) and non-residential (industrial and commercial) customers (see Table 1), and has a different pricing methodology for each category.

In 2011-12, approximately 55 per cent³ of an average residential customer's bill was for the provision of a sewerage service. Unlike the water network, the sewerage system is not typically metered, so charging customers according to their 'usage' of the service can be complicated.

As part of its inquiry into the reform of SA Water's drinking water and sewerage prices, the Essential Services Commission of South Australia (**Commission**) is reviewing sewerage pricing arrangements to see whether there is a more efficient way of charging customers for sewerage services.

Promoting greater economic efficiency is considered by the Commission to be consistent with the long term interests of consumers.

People are strongly encouraged to read Issues Paper 1 which describes the context and objectives of this inquiry [here](#).

¹ For the purpose of this Inquiry, the Commission has adopted the term 'sewerage services' to mean that as defined under the *Water Industry Act 2012*. This includes 'a service constituted by the collection, storage, treatment or conveyance of sewage through the use of a reticulated system', where sewage is defined as 'any form waste that may be appropriately removed or dealt with through the use of a sewerage system.'

² SA Water, *Regulatory Business Proposal 2013*, Page 11, available at:

http://www.escosa.sa.gov.au/library/121012-SAWaterRegulatoryBusinessProposal_2013.pdf

³ Based on data from the National Water Commission National Performance Report 2011–12: urban water utilities.

Table 1: SA Water Sewerage Service Customers 2012-13

TYPE OF SEWERAGE CUSTOMER	NO. OF CUSTOMERS
Residential	540,474
Non-Residential	30,684
Total	571,158

CURRENT PRICING OF SEWERAGE SERVICES

Residential and commercial

Charges for standard domestic sewerage services are currently based on the capital value of an SA Water customer's property. Valuations are determined by the Valuer-General each year.

SA Water calculates a sewerage charge (quarterly) based on the greater of:

- ▲ a minimum quarterly charge (for 2013-14, this is \$85.35 per quarter⁴); and
- ▲ a charge based on a percentage of the capital value of the property (referred to as the 'rate in the dollar').

The rate in the dollar differs for properties in metropolitan and non-metropolitan ('country') locations, and for residential and non-residential customers (see Table 2).

Table 2: SA Water Sewerage Service Rates – 2013-14 (Cents per \$1,000 per quarter)

TYPE OF SEWERAGE CUSTOMER (TRADITIONAL)	RATE IN THE DOLLAR (METROPOLITAN)	RATE IN THE DOLLAR (COUNTRY)
Residential	31.525 cents per \$1,000 of property value	41.525 cents per \$1,000 of property value
Non-residential	34.8 cents per \$1,000 of property value	48.425 cents per \$1,000 of property value

These charges recover the costs of operating, maintaining and improving the sewerage

⁴ Or \$21.34 for strata/community titled parking spaces.

network, and the treatment of wastewater, including recycling.⁵

The value of a property is used as a measurement of a customer's capacity to pay, and is therefore considered to be 'fair'.

One argument that has been used for charging based on property values, is that this is the most practical and equitable way of sharing the cost of providing this service across the community and that it is not practical to measure the volume and pollution load of influent from residential customers.⁶

Trade waste

SA Water also collects and treats 'trade waste' through the sewerage system. It classifies this as 'sewage, and substances contained within it, arising from any industrial, business, trade or manufacturing activity, which is discharged from a property's internal sewer to SA Water's sewerage system.'⁷

Trade waste, by its nature (quality or quantity), typically poses a number of potential risks to the sewerage system. Charges for removing it are calculated according to:

- ▲ a property-based fixed charge;
- ▲ audit and related fees; and
- ▲ for customers with load above a certain threshold, a fee based on the metered volume and type of pollutants discharged by the customer into the sewerage network. These pollutants include nitrogen, biological oxygen demand, phosphorus, suspended solids and total dissolved solids.

A schedule of all trade waste fees and charges can be found in Appendix 1.

⁵ SA Water (2013) 2013-14 Sewerage (Wastewater) Pricing: Fact Sheet, available at: <http://www.sawater.com.au/NR/rdonlyres/4EB68860-35F2-452D-8833-83C0E5C30237/0/NewSeweragePrices.pdf>

⁶ SA Water (2013) *In Detail: 2013-14 Water and Sewerage Pricing Questions and Answers*, available at: http://www.sawater.com.au/nr/rdonlyres/cdace7f4-cec3-41a5-b9f7-5c723050bec7/0/pricing_faq_2013.pdf.

⁷ SA Water (2013) *In Detail: 2013-14 Water and Sewerage Pricing Questions and Answers*.

Charging for non-connected properties (rating on abuttal)

SA Water also imposes a charge on property owners if a sewerage network runs past their property, even if the service is not connected or used.⁸ This practice is referred to as 'rating on abuttal'.

SA Water's view is that these sewerage services are still available to customers should they, or future owners, ever choose to connect. It contends that the availability of this service contributes to the value of both vacant and developed properties.⁹

POSSIBLE APPROACHES AND OPPORTUNITIES FOR CHANGE

Residential and commercial

The value of a person's property bears little relationship to the actual cost of providing the sewerage service to that property. As a result, property-based charges may not be efficient or reflect true costs.

The Commission has previously noted that, in recent years, the vast majority of urban water businesses in Australia have moved away from charging based on property values. The reasons for this include cost, equity and consumer confusion about tariffs.¹⁰

More recently, the Productivity Commission¹¹ and the Western Australian Economic Regulation

⁸ SA Water charges 100% of the rate in Table 2 for the 'rating on abuttal' properties.

⁹ SA Water (2013) *In Detail: 2013-14 Water and Sewerage Pricing Questions and Answers*, available at: http://www.sawater.com.au/nr/rdonlyres/cdace7f4-cec3-41a5-b9f7-5c723050bec7/0/pricing_faq_2013.pdf.

¹⁰ Essential Services Commission of South Australia (ESCOSA)(2010), *Final Report: Inquiry into the 2010-11 Metropolitan and Regional Potable Water and Sewerage Pricing Process*, p.59, available at: http://www.treasury.sa.gov.au/_data/assets/pdf_file/0016/1195/inquiry-into-the-201011-water-and-sewerage-pricing-process-final-report-part-b.pdf.

¹¹ Productivity Commission (2011) *Australia's Urban Water Sector: Productivity Inquiry Report Volume 1, No. 55, 31 August 2011*, p.131

Authority (ERA)¹² have recommended moving to alternative pricing approaches for economic efficiency. Appendix 2 summarises the current sewerage pricing practices across Australia.

The Commission has also raised concerns about what it costs SA Water customers – indirectly – to acquire the valuation information necessary to administer property-based charging.¹³

A number of alternative charging methodologies can be used.

Option 1: Retain the current property-value based arrangements (status quo)

One benefit of retaining the current approach is that it avoids any new costs for customers that might arise if SA Water moved to a new sewerage pricing methodology. However, prices for sewerage services would continue to bear little relation to actual costs.

Option 2: Charge according to an estimated amount of sewerage discharged into the network (consumption-based charge)

As the sewerage system is not typically metered, SA Water could estimate discharge volumes based on the volume of water supplied to customers. This approach may be a better indicator of the actual impact on the sewerage system than the current arrangements and, therefore, be more reflective of cost. It may also allow customers to better control their costs. However, there may be some initial costs to moving to this approach, and some ongoing costs in administering it.

Option 3: Price according to a fixed charge (flat rate)

Such an approach could either include all customers paying the same fixed charge regardless of the value of their property, or include different fixed rates between groups of residential and commercial customers.

A flat rate approach would be easier (and relatively inexpensive) to administer, and may result in customers' sewerage bills better

reflecting the actual costs of the service. However, the cost of treating sewerage varies according to the volume of waste discharged into the network, and a fixed charge would not reflect this.

Option 4: A combination of consumption-based and fixed charging

Customers would be charged both a fixed charge and a volumetric charge, based on the volume of water supplied. This is an approach used by some Victorian water service providers.¹⁴

It may be the most cost-reflective approach, as it takes into account the fixed and volumetric costs of providing the sewerage service to a customer. However, the costs to administer this are likely to be higher than some other options.

Option 5: Price according to some other method

SA Water could charge customers according to the number of people in a household or business, or according to the number of toilets or other appliances that have an impact on the sewerage system. It currently provides a community concession for sewerage rates for some customers (e.g. charities and churches) based on the number of toilets on the property. However, there may be some additional costs to administer this, depending on the information required.

Trade waste

Trade waste charging is calculated on a case-by-case basis, according to the estimated impact on the sewerage network (i.e. load-based charging). In this respect, it is more reflective of costs – and therefore more efficient – than property-based charging. The Productivity Commission has recently drawn a similar conclusion.¹⁵

Options for change include moving towards a flat rate, or charging by different types of business activity.

¹² Western Australian Economic Regulation Authority (2012) *Report on Inquiry into Efficient Costs and Tariffs*, p.72

¹³ Essential Services Commission of South Australia (2013) *SA Water's water and sewerage revenues 2013/14 -2015/16*, p.101.

¹⁴ For example, see South East Water <http://www.sewl.com.au/SiteCollectionDocuments/AboutUs/Picelistandcharges.pdf>.

¹⁵ Productivity Commission (2011) *Australia's Urban Water Sector: Productivity Inquiry Report Volume 1*, No. 55, 31 August 2011, p.143.

Non-connected properties (rating on abuttal)

The practice of rating on abuttal may not be reflective of costs, and therefore may not be efficient. It is used by some other water service providers outside of South Australia,¹⁶ but not in other regulated essential service industries, such as gas or electricity.

The alternatives to the current arrangement are:

Option 1: Do not charge a customer unless they actually connect to the sewerage network

This is a more cost-reflective and efficient pricing approach, as customers would only be charged based on their actual connection to the sewerage service. It is also the current practice of other utilities (e.g. electricity and gas) and in other states and territories.

However, moving to this approach would mean that the current charges paid by rating on abuttal customers would need to be transferred to SA Water's remaining sewerage service customers.

Option 2: Decrease the proportion that rating on abuttal customers pay compared with directly connected sewerage customers (currently this is set at 100%)

The rating on abuttal approach would continue, however these customers would pay a lower proportion. The advantage is that it would be moving towards a better reflection of costs. However, some charges (depending on the proportion chosen) would need to be transferred to SA Water's remaining sewerage service customers.

QUESTIONS

The Commission seeks the views of interested stakeholders on the issues raised above and, in particular, in relation to the following:

Residential and commercial

Q: What are the benefits and shortcomings of the way SA Water currently charges for sewerage

services for residential and commercial customers?

Q: What are the benefits and shortcomings of moving to a consumption-based charge, measured according to a customer's water use?

Q: What are the benefits and shortcomings of moving to a fixed charge (i.e. a flat rate) where all customers pay the same price for the sewerage service. Should there be different fixed rates between commercial customers and residential customers?

Q: What are the benefits and shortcomings of moving to a combination of fixed and volumetric charging?

Q: Are there alternative charging approaches the Commission has not considered that may better promote economic efficiency?

Q: What is an appropriate timeframe to allow for transitioning to a new sewerage service pricing arrangement?

Trade waste

Q: What are the benefits and shortcomings of the way SA Water currently charges for trade waste services?

Q: Are there better methods? If so, what are they and what is an appropriate timeframe to allow for transitioning to a new trade waste pricing arrangement?

Charging for non-connected properties (rating on abuttal)

Q: What are the benefits and shortcomings of the way SA Water currently charges non-connected properties for sewerage services? Are there any better methods?

Q: Are there other matters that the Commission should consider relating to any of the issues raised in this paper regarding sewerage, trade waste and property-based charging?

¹⁶ The rating on abuttal practice is also used by some South Australian Local Government sewerage service providers.

FURTHER INFORMATION

Any queries relating to this consultation should be directed to:

▲ Stuart Peavor, Manager, Pricing & Access

If you would like to keep up to date with the Commission's activities and the release of papers for consultation, subscribe at

<http://www.escosa.sa.gov.au/subscribe.aspx>.

APPENDIX 1 – SCHEDULE OF TRADE WASTE FEES AND CHARGES

SA Water's Trade Waste Fees and Charges, 2013-2014

TRADE WASTE DISCHARGE APPLICATION

Non-Complex (eg retail food business)	\$ 197.00
Complex	\$ 556.00

COMPLIANCE AUDIT

Non complex - per inspection	\$ 116.00
Complex - per inspection	\$ 262.00

LIQUID HAULED WASTE

Non-domestic hauled waste	
Volume (per kL)	\$ 1.370
Biologica Oxygen Demand (BOD, per kg)	\$ 0.850
Suspended Solids (per kg)	\$ 1.250
Total Dissolved Solids (TDS) for component of load above 650mg/L (per kg)	\$ 1.890
Total Kjeldahl Nitrogen (per kg)	\$ 0.340
Total Phosphorous (per kg)	\$ 1.700

DOMESTIC HAULED WASTE

Septic tank sludge (per kL)	\$ 36.72
Septic tank effluent/portable toilet contents (per kL)	\$ 6.90

TRADE WASTE VOLUME AND LOAD BASED CHARGES

All volume (per kL)	\$ 0.151
Biological Oxygen Demand (BOD, per kg), up to 1000mg/L	\$ 0.251
BOD for component of load above 1000mg/L	\$ 0.378
Suspended Solids (per kg), up to 500mg/L	\$ 0.218
Suspended Solids (per kg), for component of load above 500mg/L	\$ 0.315
Total Dissolved Solids (TDS) for component of load above 650mg/L (per kg)	\$ 0.126
Total Kjeldahl Nitrogen (per kg), all concentrations	\$ 0.392
Total Phosphorous (per kg)	\$ 1.908

STORMWATER TO SEWER

Annual fee - per square metre	\$ 10.00
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MACERATOR DISCHARGE

Annual fee - per macerator	\$ 810.00
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Source: SA Water, Fact Sheet: *SA Water's Trade Waste Fees and Charges 2013-2014*, available at: <http://www.sawater.com.au/NR/rdonlyres/0B7BB80D-2DC7-47BA-8983-7178DAE0E135/0/TWFees.pdf>

APPENDIX 2 – SEWERAGE RATING METHODOLOGY IN OTHER JURISDICTIONS

STATE	METROPOLITAN UTILITY	SEWERAGE PRICING MECHANISM	
South Australia	SA Water	Property Value	
Victoria	City West Water	Fixed + Variable	
	South East Water	Fixed + Variable	
	Yarra Valley Water	Fixed + Variable	
	Western Water	Fixed	
New South Wales	Sydney Water	Residential	Fixed
	Hunter Water		
	Gosford City Council	Non-residential	Fixed + Variable
	Wyong Shire Council		
Western Australia	Water Corporation	Residential	Gross Rental Value
		Non-residential	Fixed + Variable
Queensland	Queensland Urban Utilities	Fixed	
	Unity Water [^]	Fixed + Variable	
ACT	ACTEW [*]	Fixed	
Tasmania	TasWater	Fixed	
Northern Territory	Power and Water Corp [#]	Fixed	

[^]Variable prices introduced for residential in 2013, other customers by 2014/15.

^{*}Residential customers are fixed, business customers include additional fee for each flushing cistern in excess of two.

[#]Residential customers use one fixed rate, whereas non-domestic customers are charged additional fixed charges dependent on the number of sanitary fittings in the property.



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