APPENDIX 10: SEWERAGE CHARGING – OTHER OPTIONS

Final Inquiry Report: Inquiry into Reform Options for SA Water's Drinking Water and Sewerage Prices

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GLOSSARY OF TERMS

Commission	Essential Services Commission of South Australia
ESCV	Essential Services Commission of Victoria
Inquiry	Inquiry into Drinking Water and Sewerage Retail Services Pricing Reform, 2014
SCCA	Shopping Centre Council of Australia
Uniting Communities	A social justice agency of the Uniting Church

1. OTHER OPTIONS FOR PRICING SEWERAGE SERVICES

In arriving at its conclusions, the Inquiry examined a number of options for pricing drinking water and sewerage services.

This report presents a summary of those options not recommended in the Inquiry.

1.1 Retain the current property-value based arrangements (status quo)

The current approach sets sewerage charges based on property values.

1.1.1 Consideration

A number of submissions from stakeholders provided feedback on the continuation of this approach.

SA Water stated that the sewerage system benefits the community as a whole in terms of environmental and public health benefits, and that the costs should be shared across the community in a manner that is affordable. It therefore considered that property-based charging was a valid basis for applying charges that take account of the ability to pay.

Uniting Communities stated that it believes sewerage charges based on property values remain the best of the proposed options because property value remains a good proxy for capacity to pay.[1]

The equity argument as a basis for continuing with the current approach is noted. However, while these issues are critical in considering the implementation of any changes arising from the Inquiry, they do not drive the findings and recommendations themselves. Social equity matters, to the extent that they are separate from economic matters, are best managed by Government.

An opposing view was presented in the submission from Woolworths Limited, which stated that linking charges to the improved capital value of property discourages investment within the State. Its belief is that charges should be based on the recovery of efficient costs, rather than the value of buildings and commercial operations.[2]

The Inquiry recognises that the current approach has the benefits of acceptance and familiarity in the community, and that continuing with it would avoid any costs associated with change (e.g. to information systems).

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1 Uniting Communities submission, p.7, available at: http://www.escosa.sa.gov.au/library/140107-WaterPricingInquiry-IssuesPaperSubmission-UnitingCommunities.pdf.

2 Woolworths submission to the Commission's Inquiry into SA Water's drinking water and sewerage services, p.2, available at: http://www.escosa.sa.gov.au/library/131118-WaterPricingInquiry-IssuesPaperSubmission-WoolworthsLimited.pdf.

However, the Inquiry was asked to consider ways to improving economic efficiency, which occurs when prices are based on the costs of the services provided. Under the current approach, the prices charged are likely to bear little relation to the actual cost of providing sewerage services to a property.

As a result, property-based charges may not be efficient or reflect true costs, and may be discouraging investment and stifling competition.[3]

The Inquiry has also recommended, that end users of water/sewerage services, rather than the owner of the land/premises (as currently occurs), should become SA Water's customer for those retail services.[4] This reform, which breaks the link of sewerage costs being considered as a land-holding cost, further weakens the case for continuing with property-based charging.

As discussed in the Inquiry report, property-based costs may also distort decisions on where to live and the level of capital improvement to undertake on a property.

For the above reasons, the Inquiry does not support retention of the current property-based pricing arrangements at this time.

1.2 Price according to a fixed charge (flat rate)

This option proposed that either all customers would pay the same fixed charge, or a group of different fixed rates would be set between groups of residential and commercial customers.

1.2.1 Consideration

Two of the submissions from stakeholders provided feedback on this approach.

SA Water stated that, based on preliminary analysis, it would see prices rise for around 80 per cent of customers, and queried how such a change would improve economic efficiency.[5]

Uniting Communities stated that it was strongly against fixed charge pricing, describing such an approach as *'highly regressive'*[6].

The Inquiry notes that in New South Wales, both Sydney Water and Hunter Water residential customers pay a single fixed sewerage charge, whilst non-residential customers pay a sewerage service charge which varies with the size of connection, and a further sewerage usage charge.

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3 For example, refer to: http://tigger.uic.edu/cuppa/gci/publications/workingpaperseries/pdfs/Property%20Taxes.pdf.

4 Woolworths Limited, *Submission to the 2013 Inquiry into Drinking Water and Sewerage Retail Services Pricing Reform*, 6 November 2013, p.2, available at: http://www.escosa.sa.gov.au/projects/189/inquiry-into-drinking-water-and-sewerage-retail-services-pricing-reform.aspx.

5 SA Water submission, p.18, available at: http://www.escosa.sa.gov.au/library/131118-WaterPricingInquiry-IssuesPaperSubmission-SAWater.pdf.

6 Uniting Communities submission, p.7.

The Inquiry received sewerage costing information from SA Water which identified that, in the short run, costs were approximately 97 per cent fixed, with only 3 per cent of costs variable with volumes of sewage. Further, approximately two- thirds of the variable costs are attributable to infiltration and stormwater, rather than directly linked to volumes of customer-produced sewage.

A flat rate fixed charge for all customers would, therefore, be broadly cost-reflective, and consistent with the principles of maximising economic efficiency.

Additionally, the Inquiry notes that a fixed charge has the advantages of being cheap and easy to administer. However, a single fixed charge does not take account of the differing levels of potential load, and hence capacity requirements, that are required at sewerage treatment plants to serve different customer loads.

While there is merit in this option, the Inquiry's preferred option is more cost-reflective, and economically efficient, as it takes account of potential capacity requirements on the sewerage network.

1.3 Price according to an estimated amount of sewerage discharged into the network (consumption-based charge)

This option proposed that variable charges be levied based on estimated discharge volumes into the sewerage network. As metering of discharges into the sewerage system is impractical for small customers, it was proposed that volume of water supplied be used as a proxy for the volume of water discharged.

1.3.1 Consideration

A number of submissions from stakeholders provided feedback on this approach.

The District Council of Ceduna commented that consumption-based charging would encourage conservation and investment in water catchment and reuse[7].

The Hon. Sandra Kanck MP favoured moving to a consumption-based sewerage charge, stating that the use of water provides a good indication of the use of the sewerage system. She suggested that customers would respond to the introduction of a financial incentive to be less profligate in their use of water, thus improving water security[8].

Alano Water considered this option by comparing it to a similar charging mechanism operating in Victoria. It noted that there are potential equity issues for lower value property

[7] District Council of Ceduna submission, p.4, available at: http://www.escosa.sa.gov.au/library/131118-WaterPricingInquiry-IssuesPaperSubmission-CedunaCouncil.pdf.

[8] Submission to the Inquiry into SA Water's drinking water and sewerage services by Hon. Sandra Kanck, p.2, available at: http://www.escosa.sa.gov.au/library/131118-WaterPricingInquiry-IssuesPaperSubmission-HonSandraKanck.pdf.

owners in moving to this approach, and stated that the Victorian system seems unnecessarily complicated[9].

The Conservation Council favoured this option, stating that it provides an extension to the impact of water pricing to conserve water and would help make water conservation, stormwater recovery and recycling projects viable[10].

The Shopping Centre Council of Australia (**SCCA**)[11] and two internet respondents also favoured moving to a variable charging approach.

The Inquiry recognises that, on principle, this option has strong merit, as it appears to be consistent with user pays pricing principles. Pricing based on level of use aligns well with the pricing of water supplied, and with the pricing of other utilities, such as electricity and gas.

However, for reasons of cost, it is impractical to meter sewerage discharge volumes, other than for a very limited number of large industrial users.[12] The only practical option, therefore, would be to use a proxy to estimate discharge levels.

A proxy system, using the volume of water supplied to a property, is currently used by some Victorian water providers. However, the volume of water supplied is not always a good indicator of the volume of sewage produced. As noted by SA Water, there are issues with customers that have high levels of water supplied but little discharge (e.g. garden centres and sports fields) and, conversely, customers with little water supplied but comparatively high sewage discharge (e.g. customers with rainwater tanks or bore water). These inequities are addressed in Victoria by using a series of discharge factors, together with a seasonal component, to more accurately estimate the volume of sewerage produced. This is also complemented by a process for reviewing discharge factors on a case-by-case basis, where a customer lodges an objection, or proposes a review.

The Essential Services Commission of Victoria (**ESCV**) has stated its preference for moving away from this methodology to a single fixed charge, citing the difficulties in measuring sewage volumes and noting that such a charge would be less distortionary.[13] To date, however, this change has not been effected.

Further, given that the costs of dealing with sewage discharges are 97 per cent fixed, and only 3 per cent variable with volume, this option would not result in cost-reflective charges for many customers. This is inconsistent with the Inquiry's aim of improving economic

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9 Alano Water submission, p.2, available at: http://www.escosa.sa.gov.au/library/131118-WaterPricingInquiry-IssuesPaperSubmission-AlanoWater.pdf.

10 Conservation Council of SA submission, p.5, available at: http://www.escosa.sa.gov.au/library/131118-WaterPricingInquiry-IssuesPaperSubmission-ConservationCouncilSA.pdf

11 Shopping Centre Council of Australia submission, p.1, available at: http://www.escosa.sa.gov.au/library/131118-WaterPricingInquiry-IssuesPaperSubmission-ShoppingCentreCouncilAust.pdf.

12 See, for example, the Productivity Commission at http://pc.gov.au/projects/inquiry/urban-water, p.142 and the Essential Services Commission of SA at http://www.escosa.sa.gov.au/library/101031-PotableWaterSeweragePricingProcessesInquiry_2010-11-FinalReport.pdf, p.59.

13 ESCV, personal communication 11 Dec 2013.

efficiency. In its submission, SA Water highlighted[14] a number of inequities that may be introduced with such a pricing methodology, citing examples of customers who use large quantities of supplied water outdoors and, conversely, customers with bores or rainwater tanks, where the volume of water supplied may not be a reasonable proxy for the amount of water discharged.

The Inquiry agrees that volume of water supplied is not always a good indicator of the volume of sewage produced. It also notes the attempt to correct for this through discharge factors and a review/exemption regime. However, it is of the view that this is administratively complex, due to the requirement for ongoing reviews (to ensure discharge factors remain accurate overall, or where a customer lodges an objection), and potentially confusing for customers.[15]

For these reasons, the Inquiry does not support this option at this time.

1.4 Price according to a combination of consumption-based (variable) and fixed charging

Under this option, customers would be charged both a fixed charge and a volumetric charge, based on the volume of water supplied.

1.4.1 Consideration

Only SA Water provided feedback on this approach, querying whether it would provide appropriate incentives to customers to reduce overall costs.[16]

The Inquiry notes that this option aligns with the way charges are levied for water supplied and with the pricing structure of other utilities, such as electricity and gas.

However, as it would be partly based on a variable charge linked to discharge volumes, this option attracts all of the same issues as described in 1.3.

Further, as sewerage costs are 97 per cent fixed, a cost reflective sewage discharge based bill would have a 97 per cent fixed charge, with only the remaining 3 per cent of the bill (estimated at approximately $16 per annum) varying with discharge volumes.

The Inquiry considers it very unlikely that this small variable cost element would, in any way, drive customer behaviour. As previously noted, experience interstate where a usage component for sewerage has been introduced suggests that customers have very little ability to control their behaviour in relation to sewage discharge volumes. Therefore, the costs of setting up a volume proxy system and providing a split fixed/variable sewerage bill would almost certainly outweigh any benefits.

For these reasons, the Inquiry does not support this option at this time.

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[14] SA Water submission, p.16.
[15] ESCV, personal communication 11 Dec 2013.
[16] SA Water submission, p.18.

1.5 Price according to some other method

Under this option, sewerage charges could be levied 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.

1.5.1 Consideration

A number of submissions from stakeholders provided feedback on this approach.

SA Water stated that no database of occupancy or number of appliances currently exists, and that maintenance of such a database would introduce a number of administrative complexities[17].

The Inquiry notes that, for domestic premises, both the level of occupancy, or for example, the number of bathrooms/pedestals, could provide a reasonable proxy for the volume of sewage discharged. However, as identified by SA Water, no database of such information exists, and the establishment and ongoing maintenance of such a database has the potential to be both expensive and administratively complex. It would also be open to the potential for 'gaming', with customers incentivised to under-declare the number of occupants or bathrooms/pedestals on their property to minimise their sewerage bill. Such gaming occurred in the UK from 1696 to 1850 in response to the window tax, where building owners boarded up windows in order to avoid the tax.[18]

Further, given that the costs of dealing with sewage discharges are 97 per cent fixed, and only 3 per cent variable with volume, this option would not result in cost-reflective charges for many customers.

For these reasons, the Inquiry does not support this option at this time.

[17] SA Water submission, p.19.

[18] See Parliament UK, http://www.parliament.uk/about/living-heritage/transformingsociety/towncountry/towns/tyne-and-wear-case-study/about-the-group/housing/window-tax/.

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