Mr David Jones
General Manager, Adjudication
Merger and Authorisation Review Division
Australian Competition and Consumer Commission
24 August 2018
RE: Draft Determination and Interim Authorisation AA1000414
Dear Mr Jones
I write on behalf of the Waste and Recycling Association of South Australia (WRASA) in response to the Draft Determination of 20 July 2018 for the Application from Council Solutions and Ors (AA1000414) for kerbside waste collection services.

This submission responds to each of the points made by the ACCC in its Draft Determination.
WRASA believes that the Application will result in a substantial lessening of competition in the market being addressed by the Council Solutions (CS) proposals. It will likely provide a net public detriment and a lessening in competition and will result in the long term increase in prices above the market price and decreased service quality to customers.

This submission provides new and comprehensive evidence to demonstrate that the Final Determination should find that the Application will result in net public detriment and a lessening of competition.

## 1. The Proposed Conduct

- Council Solutions, on behalf of the Participating Councils (Adelaide City, City of Charles Sturt, City of Marion and City of Port Adelaide Enfield Councils) propose to manage a collaborative tender process for waste collection services, to evaluate the responses in consultation with the Participating Councils, and negotiate the final single joint contract on behalf of all four Participating Councils;
- The Participating Councils to enter into a single joint contract with one contractor
- Council Solutions propose to manage the contract requirements in collaboration with the four Participating Councils during the 10 year term

Waste Collection Services include:

- domestic waste, recyclables and organics collection
- supply and maintenance of the bins
- 2 "centroid" locations because the final destinations for disposal and processing will not be known, plus an additional "out of centroid" area to be priced
- all four council services to commence on May 2020 or May 2021 with a maximum 10 year operating term (authorisation is applicable to June 30, 2031).


## 2. Relevant areas of competition

The approximate number of Rateable Properties are City of Adelaide 22,000, Charles Sturt 56,000, Marion 41,000 and Port Adelaide Enfield 61,000. The total households is approximately 180,000. This represents $32.7 \%$ of households in the Adelaide Metropolitan Region.

It is WRASA's view that this is too large a contract and market share to be subject to a winner takes all outcome. Given that already approximately $40 \%$ of the market share is uncontestable with other Regional Subsidiaries in Adelaide, NAWMA (8-9 years) and East Waste (indefinitely).

WRASA agree with the AOCC's market definition in paragraph 58 of the Draft Determination as being the Adelaide Metropolitan Region area. The Adelaide Metropolitan Region is the applicable and official region used by state government departments, LGA SA, GISA and the EPA. Council Solutions, when analysing market share, have excluded seven (7) East Waste Adelaide Metropolitan Councils and al so the in house garbage service provided by Onkaparinga Council. In attachment 2 of their 17/5/2018 submission, for which East Waste and in house services have been omitted, the Council Solutions graphs misrepresent the Adelaide Metropolitan Region market.

Contradicting this is their page 6 statement referring to their use of the Greater Adelaide region; "Whilst some of this market share may not currentiy be available to the private sector, that does not mean a) it is not part of the market and b) that it will remain unavailable for the duration of the Proposed Conduct." Yet in Attachment 2 of the same document they exclude those councils an incorrectly define the market. We provide as new evidencea chart summarising the current and potential future market shares with and without the proposed conduct using $2016 / 17 \mathrm{SA}$ Grants Commission data (see Table 2.1 below).

Table 2.1 - Councils Solutions market share versus actual Adelaide metr op olitan region market share


Figure 2.2 Maximum Competition - Longterm market shares without proposed conduct


As highlighted above, we believe the optimal outcome to maintain and maximise competition in the Adelaide Metropolitan Region market is to allow Councils to tender seperately and be open to tender to all contractors of all sizes. This will result in $78 \%$ of the market remaining open to tenderers of all sizes in the long term.

## 3. Future with and without

The ACCC determines that if the authorisation was not given, each council would procure the kerbside collection services individually and that the timing would be spread over extended periods and with contracts of varying lengths.

This maximises the number of competitive opportunities for suppliers in the market and provides maximum choice and value for Councils. It ensures that no one party obtains overwhelming competitive advantage through a single winner takes all tender (as proposed by the Applicant).

WRASA submits new evidence that has not been identified to date. That is, when comparing the future with Council Solutions and without Council Solutions, perhaps the most likely scenario in a future without Council Solutions is that Port Adelaide Enfield and Charles Sturt tender together without outsourcing the procurement and contract management functions. Also the most likely scenario with regards to the City of Marion is that it tenders with neighbours and current collaborators; West Torrens City and Holdfast Bay City. This means that the ACCC must compare, for example, the efficiency of the kerbside collection services using the proposed councils spread geographically against the efficiency of collections in just Charles Sturt and Port Adelaide, which would require only 1 centroid and 1 depot.


On page 1 of the Applicant's 17/5/2018 submission they state, "There is no evidence to suggest that any detriments in the future with the Proposed Conduct will be substantially different to any detriments in the future without the Proposed Conduct in AA1000414, noting: with the Proposed Conduct the only outcome where one provider would have a greater market share than the current market leader currently enjoys is if that market leader won the Waste Collection Services contract under the Proposed Contract, in which case their market share would grow by one Council."


In making their determination, the ACCC conclude on page 3, "Page 3 The ACCC has also considered whether the proposed conduct may, in the longer term, reduce competition to supply collection services
to the Participating Councils and other councils in Adelaide. However, the ACCC considers that there will be enough opportunities for those suppliers who do not win the contract with the Participating Councils to remain active in waste services in South Australia (SA) and elsewhere in Australia. Most also have municipal collection contracts in SA or elsewhere in Australia and barriers to expanding into new geographic areas for large, established operators, do not appear to be high."

We respectfully advise that this is not the case for small, medium and large contractors who will face significant competition and financial barriers to entry, which we expand upon in section 5 - Stimulation of Competition. For example, several large companies have tendered unsuccessfully in the Adelaide Metropolitan Region market. Some of Australia's largest waste companies have found it difficult to win tenders or establish a presence in other areas also due to various factors.

We also note that even if a collection service provider is able to find new work in another area, the net public detriment to the local market will remain along with the loss of company investment and likely concentration of the market.

## 4. Public benefit

Whilst not defined by the ACCC, the Australian Competition Tribunal states that the public benefit includes "anything of value to the community generally, any contribution of the aims pursued by society including as one of its principal elements the achievement of the economic goals of efficiency and progress".

The ACCC has addressed 5 areas in which Council Solutions claim there will be a net public benefit. WRASA have provided additional new evidence to demonstrate without question a net public detriment will result.

### 4.1 Transaction Cost Savings

The ACCC considers that the proposed conduct is likely to reduce some duplication in tender related tasks including documentation preparation, briefing and contract preparation. However, the ACCC also finds that these small savings are likely to be largely offest by additional efforts to coordinate internally within the respective Councils, other Participating Councils and Council Solutions.

WRASA dispute the Council Solutions claim and have provided the following evidence to illustrate that complications in the Application such as the geographic spread of councils, use of centroids, long lead time and other uncertainties, has resulted in thousands of possible pricing combinations that will generate incomparable submissions and unassessable tenderers.

New evidence submitted in the attached from Dr Frank Ashe of Quantitative Strategies shows that the final price schedule will have potentially 1188 price combination options for tenderers to complete to accommodate centroid, stream and council/tonnage bracket combinations. Further pricing possibilities including alternative tenders, and also tender combinations with contracts from the Ancillary Services and Processing / Disposal applications, will see pricing options increase exponentially. This was identified as major detriment in 2016, and it remains a major detriment in 2018 due to the complication of centroids, multiple waste streams and tonnage bracket requirements.

### 4.2 Improved Efficiencies through combined contract management

Council Solutions claims that there is likely to be a net public benefit resulting from efficiencies from combined contract management.

WRASA provides new evidence that there will be a net public detriment from uncertainty and complexity surrounding the additional work required to involve an intermediary (Council Solutions) on numerous administrative, operational and customer service tasks. WRASA are concerned about the quality of contract management that will be provided by Council Solutions when compared to a future without the Regional Subsidiary, given that they are already making a financial loss, have recently lost their CEO and primary Contracts Manager, and have officially set the management fee at $0 \%$ for the contract. We question how the current high service quality to residents will be funded and maintained.

The ACCC finds that due to a lack of data certainty the claim that centrally coordinated data analysis, policy and strategy development and monitoring of the services provides a material public benefit, cannot be determined or supported. WRASA supports this finding.

We provide additional evidence from Quantitative Strategies that details why the additional and unknown coordination between the five Applicants will result in increased contract risk, higher pricing and compromised quality of service. (Refer to the attached report by Quantitative Strategies)

### 4.3 Improved efficiencies in the supply of kerbside waste collection services

WRASA believes that the asserted efficiency gains associated with the Proposed Conduct will not eventuate.

WRASA provides evidence below that demonstrates that the so called efficiencies are non-existent, and changing collection routes and allowing vehicles to cross council boundaries in fact are likely to be net public detriments.

The idea that more efficient collection routes could be established across non-contiguous council areas is incorrect. Three Councils share some common borders but only Port Adelaide Enfield and Charles Sturt share a significant common border. Adelaide City Council shares less than $20 \%$ of its border with Charles Sturt. The City of Marion is completely non-contiguous.

The ability to service more than one Participating Council in any run is not realistic. It would result in major diseconomies by driving across non-participant Council areas. The argument also denies how truck runs are established. They are set up to concentrate collections and then to deliver to a processing facility or landfill. The absence of any defined facilities (Council Solutions is only specifying 78 km 2 centroids) obviates against the creation (and pricing in a tender) of efficient runs.

Put another way it is impossible for a tenderer to create efficient runs based on centroids. Therefore the tender cannot and will not achieve price efficiencies associated with "efficient runs" across multiple participating councils, especially when compared with a likely "future without" scenario involving only Charles Sturt and Port Adelaide Enfield tendering together, where a single depot and disposal location could be nominated.

To achieve such efficiencies tenderers must know the final destinations as part of the tender documents. To state otherwise (as done by Council Solutions) is further testimony to the lack of practical waste management experience in the Council Solutions team.

Furthermore, it is unclear how a run which covers two Council areas would be properly accounted for in terms of billing and invoicing. Even with scales it would be impossible to properly allocate disposal costs to the correct Council area when picked up by a truck servicing both areas. This appears to be another Council Solutions idea that is neither well thought through nor commercially feasible.

Each Council would need to agree how to technically subsidise the other for any waste collected, transported and disposed of by each truck working across boundaries and reconcile those payments with up to 5 disposal facilities monthly. This is not done any where else in Australia and would prove unfeasible to carry out.


Figure 4.31. Council waste costs per tenement: Regional subsidiary or individually tendered.


Similarly, Council data available publically on the Victorian knowyourcouncil website also demonstrates that the correlation between council size and collection charges is proportional with smaller councils on average having lower waste collection costs ( see Figure 4.32).

Figure 4.32. Victorian Council garbage and recycling collection costs per tenement per annum.


The evidence provided above in Figure 4.31 and 4.32 is supported by independent academic reseach conducted by Professor Brian Dollery (Professor of Economics, University of New England; Director of the Centre for Local Government, University of New England; Visiting Professor at the Faculty of Economics, Yokohama National University) who has recently analysed economies of scale in local governemt in NSW in 2015, Queensland in 2016 and South Australia in 2018. His findings are best summarised as follows

- Page 7: Amalgamation was partly founded on the assumption that increased economies of scale would generate savings,
- Page 8: They found evidence of 'U-shaped' cost curves. For the 2006/07 period, evidence of economies of scale was found for populations up to 98,000 and diseconomies of scale beyond this point
- Page 8: However, due to the effects of these forced amalgamations nearly a quarter of all councils (13 councils) were now found to exhibit diseconomies of scale
- Page 8: no scale economies were observed for either road or domestic waste collection and removal expenditure. It follows that the findings of Drew, Kortt and Dollery (2016) directly undermine the claims made by Council Solutions (2018) that cost savings would emerge from its proposal
- Page 11: Worthington and Dollery (2001) found that trafficcongestion to be a significant determinant of the costs of waste collection rather than scale. Since the Council Solutions (2018) proposal does nothing to ameliorate traffic congestion, this finding by Worthington and Dollery (2001) serves to bring into question the veracity of its empirical claim of cost savings through serving a larger population.

Further evidence supporting industry experience and the reasearch of Professor Dollery is highlighted in Figure 4.33 below showing that larger contracts attract increased union involvement resulting in

Figure 4.33. Enterprise Bargaining Agreements vs Waste Manangement Awards Rates


### 4.4 Improved environmental outcomes

Council Solutions argues broadly that "where contamination is managed, diversion will be increased and there will be less waste going to landfill. Combining educational materials will not only make this messaging more consistent but it will also be more strategic and more affordable through sharing costs."

Council Solutions submits SA landfill diversion data (18/5/2018 - source unknown) to refute WRASA's previous position of poorer diversion results for larger councils. However they erroneously included 8 councils from other LGA SA regions outside the Adelaide Metropolitan Region which distorts the figures and graphs due to lower average diversion rates, lower household numbers and higher transport costs. As new evidence, we have collated the available data for New South Wales, Victoria and South Australia which clearly shows that Council Solutions' assertion that combined, or larger education programs are more effective, is incorrect. In fact, as the evidence below confirms, there is an inverse relationship between council size and landfill diversion (see Figure 4.41, Figure 4.42, Figure 4.43). Simply put, the smaller the council, the greater the likelihood of increased landfill diversion for similar bin systems. Based on this evidence from councils in Victoria, South Australia and New South Wales, the proposed activity is likely to reduce landfill diversion resulting in an environmental and public detriment.

Figure 4.41. Victorian metropolitan council landfill diversion rates by council size.


Figure 4.42. South Australian metropolitan council landfill diversion rates by council size.
The source data for this graph has been taken from the Council Solutions' graph in their May 18 submission which erroneously included 8 councils from outside the Adelaide Metropolitan Region. We note that as per the Victorian graph above, CBD areas often record lower diversion rates. Even with that, the graph shows that smaller council contracts have better waste diversion results.


Figure 4.43. New South Wales RLA council landfill diversion rates by council size
Diversion Rate Vs Tenements NSW RLA


Ultimately the utility of an education program is a function of the per capita funding put to it. An education program typically involves bin tagging, education officers, public media campaigns and letters to residents. The more these activities are pursued, generally the greater the diversion from landfill. Most Councils provide these services directly.

Council Solutions provides no evidence that funding will be increased via the Proposed Conduct or that the Council Solutions team will be able to effectively implement and manage a waste education program.


To put it simply the case for improved environmental benefits under the proposed conduct is vague, as funding is uncertain, details of education intiatives are not provided and resourcing and waste education experience remain unconfirmed. The case for avoiding net public detriment is speculative at best, which is not sufficient to prove a net public benefit that can offset the lessening of competition.

Council Solutions provide a contradictory statement on page 2 of their $12 / 6 / 18$ by stating "education programs proposed in AA1000414 will be more targeted and consistent across participating councils". WRASA agrees that effective education programs are those that are targetted to the needs of a specific council, which contradicts that an education campaign can be both "targetted and consistent across participating councils".

The Applicant provides further information in their 17/5/18 application on page 5 stating environment benefits will be realised from driver intervention of contamination at the kerbside. However is appears Council Solutions are not aware this is standard practice that has been in place for $15-20$ years. WRASA can also advise that its members are now using cameras directed at the kerbside and into the hopper to identify contamination in bins in contracts of various sizes.

We submit that Council Solutions' education program will be compromised and poorly funded. Hence no additional environmental benefits will be realised and there will be net public detriment from environmental outcomes..

Council Solutions proposes a ten year contract for waste collection. That will see MRF contract updates twice during the collection term. Given the risks associated with the MRF business case due to China National Sword, that significantly increases the risk profile associated with the Proposed Conduct as the location, owner and requirements for the recyclables processing facility could possibly change twice during the contract term.

NSW Councils are now opting for 2 year MRF contracts to avoid significant movement in gate fees due to further falls in commodity prices. This is not possible with the proposed Council Solutions contract structure. In fact, Council Solutions are unable to release any information on the MRF contract until the collection tenders are completed and submitted by contractors. That will mean that the successful collector will be directed to a MRF or several MRFs during the ten year contract period, for which they are unaware of any details when submitting their prices. The concentration of kerbside product into a larger MRF supply arrangement also increases the risk of international
market exposure. This could result in unknowable price increases and/or limits placed on export arrangements.

WRASA stress that it is critical for reliable collection tender pricing that the collection contract tenderer is aware of the location and requirements of the disposal and processing facilities for their pricing. Aspects such as the precise location within the centroid radius, compaction ratio, wait times and access times can add unnecessary and significant risk and therefore truck hours, potentially up to (2) full time trucks across the contract.

Maximising the number of collectors servicing the maximum number of MRFs reduces these risks. To do otherwise risks the landfilling of these materials with significant negative environmental outcomes. This has not been addressed by Council Solutions in any form.

### 4.5 Stimulation of competition

Council Solutions submits that there are six potential suppliers in the market which have the capacity to provide the Waste Collection Services. This is disputed and WRASA provide new evidence to confirm the proposed conduct will not stimulate competition and is likely to lessen it.

Competition will be significantly diminished by the Proposed Conduct. This key point has been stated by industry waste service suppliers and industry associations, to the ACCC in respect of this application, on every possible occasion.

WRASA believes the greatest number of tender opportunities will be achieved without the proposed conduct as highlighted in Figure 4.51 below

Figure $\mathbf{4 . 5 1}$ Maximum Competition - Long term market shares without proposed conduct

76. Third party local government bodies:
76.1. If, at any time during the Term, Council Solutions so requests, the Contractor must negotiate in good faith with a third party local government body for that local government body to accede to this Agreement, and so become a Principal for the balance of the Term.

Furthermore, to explain why new entrants are unlikely, the incumbent providers have a significant competitive advantage in respect of subsequent tenders for later contestable contracts in the Region. In one of their submissions to the AOCC, MRAConsulting Group outlined the areas in which the incumbent has competitive advantage in future tenders:
"Such incumbency and scale advantages (regarding future tenders for processing and other collection and ancillary services) will include:

- Knowledge of Council priorities and strategic intent
- Knowledge of densities and weights of bins
- Knowledge of collection areas and household patterns
- Access to detailed auditing data on waste types, characterization and organic content
- Bin and truck productivity
- intimate knowledge of education success and failure
- Truck operating costs and maintenance
- Operation of depots
- Waste calorific values.

These are significant competitive advantages which while they exist in relation to each Council now, are exaggerated by the scale of the combined tender."

Many of these factors are not described in council tenders. The information remains confidential to the council (and the incumbent provider). As such the incumbent can rely on them for significant competitive advantage.

The capital costs of approximately across all services is prohibitive for many potential tenderers. This would form one of the largest waste collection tenders in Australia. Business SA, and many other parties, have raised these concerns with the $A C C C$.

> It is estimated that the capital cost for new bins would be $\square$ (assuming 3 waste streams / tenement), with vehicles costing up to $\square$ for approximately $\square$.

Obtaining access to $\$ 60 \mathrm{~m}$ to finance this contract would not be possible for many small and medium businesses, which is likely to prohibit many from the tendering process. However, as larger contractors can self finance they avoid being burdened with the financial risk premium, which removes the barrier to entry and provides them with a competitive pricing advantage.

In colloquial language, we believe the applicants proposal not only creates an unlevel playing field but also prevents small and medium players from getting to the starting line in the first place.

There is compelling evidence that the number of tender submissions for large council contracts is proportionally decreased.

As summarised below this represents a $\mathbf{5 0 \%}$ reduction in the participation rate for the joint tender versus the individual tenders, directly disproving the applicants unfounded claims.

Figure 4.52. Reduction in tenderers

|  |  |  | Total <br> Tenderers | Participating <br> Joint <br> Tender | Reduction in <br> Participation <br> Rate |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Winner |  | Y | Y |  |
|  | Y | Y | Y | Y |  |
|  | Y | Y | Y |  |  |
|  |  | Winner | Y |  |  |
| Count |  |  | 4 | 2 | $-50 \%$ |

This also highlight two key public detriments that are imbedded in the applicants proposed activity:

1. Only 2 collection contractors tendered for $\square$, when smaller tenders attract 6 or more tenderers (see Figure 4.54 below), and
2. Each Council selected a separate contractor based on their selection criteria. As the proposed conduct does not allow more than one contractor to be selected, individual councils cannot individually select a contractor that best meets the selection criteria and needs of their council.

Furthermore, Figure 4.53 shows work done by MRA Consulting Group on the number of tenderers submitting for Council waste collection services across Australia as a function of the size of the contract (as measured in rateable properties). It indicates that when the number of households exceeds about 110,000 households then the number of tenderers falls.

Figure 4.53. The relationship between contract size and the number of conforming tenders submitted.


Figure 4.53 clearly shows that the number of tenderers is inversely correlated to the size of the tender (measured in number of tenements). The highest number of complying tenders is actually received for the smallest tenders by size.

This argues strongly against the Council Solutions proposition that competition as measured by number of complying tenders will increase with increased scale.

The ACCC made an attempt to undertake this research but admitted that its sample size was very small. The data source for the data collected by MRA above is Australia wide and involves over 38 Council tenders including metropolitan areas


WRASA invites the ACCC to contact these companies to seek an opinion as to whether they are more likely to tender for a 40-70,000 household contract over one that is 180,000 . The answer will be that they strongly prefer the smaller contracts and will bid for them competitively because they have a) fewer capital and financing hurdles, b) are lower risk in terms of errors and c) involve simpler mobilisation and hence disruption to the existing business.

The reality is that 4 councils of this size and geographic spread tendering jointly might receive 2-3 tenders. 4 Councils tendering separately will attract at least 5-6 for each tender.

WRASA requests that the ACCC reconsider its draft consideration "that the proposed conduct is likely to result in some public benefit by stimulating additional competition to provide kerbside collection services". This is not supported by the industry body or industry participants, nor the above new evidence provided by WRASA.

## 5. Longer term reduction in competition for the supply of waste services

On the question of whether the Proposed Conduct will lessen competition by deterring or preventing some suppliers from tendering or bidding competitively the ACCC states "that this is unlikely in practice, as there are few businesses that have the necessary capabilities to win a contract to service one Council, but could not tender to service all four councils. Rather than lessening competition the net effect of the proposed conduct is likely to be to stimulate greater competition by leading to more tender participants than would otherwise be the case and/or tender participants bidding more keenly".

This is the nub of the issue and is disputed.
The experience is that potential tenderers self assess the likelihood of winning and the risks associated with such a large tender. The fact is that the number of tenderers decreases with the increase in the scale of the contract.

Many small waste collectors are unable to provide services to a 180,000 household contract. As stated in multiple submissions to the ACCC in relation to the first application, 180,000 households, representing over 400,000 households, constitutes one of the largest tenders in Australia.

The ACCC Determination found for the first application "with the likelihood that some potential tenderers will not participate in the RFP dues to its increased scope and complexity and the greater costs involved, leads the ACCC to conclude that there is a real chance that the proposed conduct will lead to fewer participants in the tender process than would be the case without the proposed conduct".

The effect of the scale of the collection tender remains virtually the same, $(180,012$ in the current application versus 258,087 households in the second). The difference is not significant, whilst the number of collection systems ( 3 bins) remains the same. This will discriminate against small service providers and significantly reduce competition. The only applicable remedy is to reduce the number of participating households or Councils.

The ACCC found previously that "fewer participants in the tender process would reduce the competitive tension between tenderers and therefore be likely to result in public detriment".

These issues run directly counter to the Draft Determination. It is not clear how or why the ACCC has altered its view on the effect on competition between the first application and this Draft Determination.

## 6. Competition for the supply of MGBs

The ACCC considers that the Proposed Conduct is unlikely to reduce competition for the supply of mobile garbage bins. WRASA submits that, subject to the final number of bins that Council Solutions would propose to constitute the initial bin rollout, the effect on the bin supply market would be the same as the effect that the prime contract has on the collection services market.

Council Solutions states that the contractor will enter into the supply arrangement for bins rather than Council Solutions or the individual councils. This further concentrates the buying power of one company for 540,000 bins. We note also that the bin manufacturer for the initial bin rollout is usually the company selected to supply bins throughout the contract term, in this case, over 10 years. Council Solutions suggests that collection tenderers will "seek to adopt arrangements for the supply. that maximise competition for the provision of the bins". Why would this be the case? The collection contractor will seek supply of bins from the single entity that guarantees to supply the bins at best value. There is no mechanism built into the contract proposed by Council Solutions that either requires or provides an incentive for collection tenderers to maximise the competitiveness of the market. To the contrary, the proposed conduct encourages lessening of competiton in the market.

## 7. Order of Tenders

When preparing collection services tenders, the standard and best practice is for councils to have tendered for, or know their disposal and processing facilities first, so that collection contractors can price transport distances, time and other associated costs with a high level of accuracy, thereby reducing the risk premium in the pricing. The higher uncertainty with regards to collection operations forces tenderers to submit prices that include contingency pricing for the worst case scenario.

Having 78 square kilometre centroids versus actual confirmed destinations cements risk into the tender process, guaranteeing inflated pricing for Councils and residents. Tenderers must calculate prices based on travel to the furthest point in the centroid circumference ( 5 km by air but more by actual road).

Also, it is suggested by Council Solutions that tender prices will be required to cover any disposal facility not located within the 10 km centroid circumferences,

As the cost of travelling to a facility that may be anywhere outside of the 2 centroids cannot be estimated accurately during the tender process due to unknown traffic conditions, travel times, and even the impact on truck numbers, this will inevitably be priced at a premium to mitigate risk. There is a high probability that theproposed tender pricing structure using the centroids will result in a public detriment.

To overcome this complexity issue tenderers face, they will often submit prices with alternative destinations, terms or tonnages that differ from each other,

It is a major flaw of the proposed conduct that will result in a significant public detriment that disposal and processing facilities have not been resolved prior to finalising the collection specification. The opportunity for Councils and the successful disposal/processing facilities to jointly develop contamination and compaction requirements necessary to maximise diversion will be lost.

## 8. Summary

The ACCC concluded in 2016:

1. The Transaction Cost savings are likely to be significantly offset by additional costs to coordinate internally within the group of Councils. WRASA agrees.
2. The larger the number of councils and service streams, the higher the coordination costs. WRASA agrees.
3. For the proposed conduct there was no likely environmental benefit in respect of waste collection and waste disposal. WRASA agrees.
4. It is not persuaded that the aggregation of volumes and contracts would be likely to result in a public benefit in the form of stimulation of competition. WRASA agrees and questions the change in logic from 2016 to 2018, especially given that no evidence is provided by the Applicant. .
5. The Proposed Conduct is likely to result in some public detriment constituted by a lessening of competition by deterring or preventing some suppliers from participating in the tender process or submitting competitive bids. WRASA agrees and questions the change in logic from 2016 to 2018, especially given that no evidence is provided by the Applicant.
6. It is not persuaded that the proposed conduct is likely to result in a net public benefit in the form of improved efficiences for the supply of waste collection services. WRASA agrees and questions the change in logic from 2016 to 2018, especially given that no evidence or incorrect evidence only is provided.

The material issues raised by the ACCC in 2016 have not been addressed by the Applicant in the new application. The restriction of the Proposed Conduct to waste collection only does not diminish the significant effect that the conduct will have on competition in Adelaide both in respect of collection now and downstream processing in the future, as all contracts will be tendered simultaneously and

Council Solutions state that they will be encouraging tenders that blend the 3 Applications in undefined ways.

The Application does not provide evidence that the Proposed Conduct can occur without significantly lessening competition and the new evidence provided by WRASA confirms that it will result in a significant net public detriment and lessening of competition and should therefore be rejected.

Yours sincerely,

WRASA

Appendix 1. Costs per household for regional vs individual tenders ( $\$ / \mathrm{hh} /$ year) Adelaide.


# An Assessment of the Public Benefit Claims 

# Advanced by Council Solutions (2018) in its 

## Council Solutions Application for

## Authorisation AA1000414

Includes Assessments of Economies of Scale in Local Councils:

- New South Wales 2015
- Queensland 2016
- South Australia 2018

This Report was prepared by Brian Dollery on behalf of New England Education and Research Proprietary Limited for Waste and Recycling Association of South Australia (WRASA). This Report was produced for WRASA as a strictly independent Report. The opinions expressed in the Report are thus exclusively the views of its author and do not necessarily coincide with the views of WRASA or any other body. The information provided in this Report may be reproduced in whole or in part for media review, quotation in literature, or non-commercial purposes, subject to the inclusion of acknowledgement of the source and provided no commercial use or sale of the material occurs.

# An Assessment of the Public Benefit Claims Advanced by Council Solutions (2018) in its Council Solutions Application for Authorisation AA1000414 

## 1. Introduction

In its Draft Determination on Council Solutions Application for Authorisation AA1000414 (Joint procurement, negotiation and contracting for kerbside waste collection services), the ACCC (2018) proposes to 'grant authorisation to Council Solutions, Adelaide City Council and the Cities of Charles Sturt, Marion and Port Adelaide Enfield (the Participating Councils) to jointly procure the collection of domestic waste, recyclables and organics through kerbside collection, including the supply and maintenance of mobile garbage bins'. In addition, the ACCC (2018) granted interim authorisation to Council Solutions to commence the requisite tender and negotiation process.

In its Application for authorisation for Waste Collection Services: Public Register Version, Council Solutions (2018, p.17) submits that its application will generate 'significant public benefits' through '(a) tender process cost savings and efficiencies by reducing the replication of work for both Participating Councils and potential suppliers through alignment of specifications and service standards and the administration of a single tender process'; '(b) environmental benefits from the increased diversion of waste from landfill'; '(c) lower costs for Participating Councils through improved purchasing power'; '(d) increased competition from the stimulation of the market'; and '(e) increased service efficiencies'. These purported sources of public benefit are placed in two different categories: benefits that are 'certain to arise' and benefits that are 'likely to occur'. The former category encompasses claimed efficiencies in the tender process and 'environmental benefits'. By contrast, the latter category covers reduced costs through 'improved purchasing power', greater competition and 'improved service efficiencies'. It is clear that both 'certain' public benefits as well as public benefits 'likely to occur' are implicitly premised on the assumption that scale economies exist
in waste collection and processing services. Although this is an empirical claim, no evidence is produced on whether significant scale economies in fact exist.

This short Report follows an earlier report by Dollery (2016) entitled An Assessment of Public Benefit Claims Derived from Scale Economies by Council Solutions in its Supporting Submission (2015) and its Subsequent Written Submission After Draft Determination (2016).In this report, Dollery (2016) considered the empirical evidence on scale economies in municipal waste in some detail, including a synoptic review of the international evidence and the generic problems which have afflicted the body of work. In addition, Dollery (2016) considered Australian research in the area in the form of Worthington and Dollery (2001), Carvalho, Marques and Dollery (2015) and Drew, Kortt and Dollery (2016). Dollery (2016, p.23) concluded that 'in sum, if we consider the most recent empirical research on scale economies in Australian waste management published in the peer-reviewed scholarly literature, it is clear that the claims advanced by Council Solutions $(2015 ; 2016)$ on public benefit derived from economies of scale in its Supporting Submission and it Written After Draft Submission are incorrect'.

In its determination published in December 2016, the ACCC denied authorisation to Council Solutions to procure waste management services on the basis that despite the existence of some probable public befits, these were outweighed by other factors, including costs from multiple waste streams, the likely attendant resultant increase in transactions costs, and a decrease in competition.

In its most recent application, Council Solutions (2018) has attempted to accommodate these previous concerns by making five changes to its earlier proposal. Thus, Council Solutions (2018) has subdivided its early process into three separate tender processes (i.e. collection, processing, ancillary services); it will operate a RFT for each process instead of the earlier RFP; it will establish a single kerbside collection supplier for all of the four Participating

Councils; the proposed contract period has been shortened to a maximum period of ten years; and its current proposal has four and not the previous five councils (with Tea Tree Gully now not included). It should be stressed that these minor changes make little substantive difference to the overall thrust of the Council Solutions (2018) proposal. Furthermore, a final determination by the ACCC must still hinge on overall public benefit exceeding public detriment and not simply by comparing the present Council Solutions proposal with its previous proposal.

This short Report will not rehearse the earlier synoptic account of the international empirical work on scale economies in local government services provided by Dollery (2016) in his An Assessment of Public Benefit Claims Derived from Scale Economies by Council Solutions in its Supporting Submission (2015) and its Subsequent Written Submission after Draft Determination (2016). Rather the Report will summarise the main findings of this report on scale economies and their implications for the Council Solutions (2018) revised proposal. In addition, it will briefly summarise recent Australian research on scale economies, including new work by Tran, Kortt and Dollery (2018) on South Australian local government service outlays published in Local Government Studies, and explore this implications of these studies for the amended Council Solutions (2018) proposal. Finally, the Report will consider the validity of specific claim made by Council Solutions (2018) that its proposal would increase service efficiency in the light of the available peer-reviewed empirical literature on scale economies in the Australian municipal waste sector.

## 2. International and Australian Evidence on Scale Economies in Local Government

As we have noted, in his An Assessment of Public Benefit Claims Derived from Scale Economies by Council Solutions in its Supporting Submission (2015) and its Subsequent Written Submission after Draft Determination (2016), Dollery (2016) provided a thorough survey of the international and Australian literature on scale economies in local government
functions and services. In Table 1, Dollery 2016, p.10/11) summarised the main body of international empirical work on scale economies and then offered an account of its shortcomings. Moreover, Dollery (2016, p.15) observed that 'the research documented in Table 1 does not have a direct bearing on whether there are substantial scale economies in Australian local government in general or in waste collection and disposal services in particular'. This is largely due to the fact that 'Australian local government authorities have a relatively narrow range of functions with an emphasis on "services to property" as opposed to most developed countries, such as Britain, Canada and the United States, where local authorities provide a much wider array of services'.

In Table 2 of his report, Dollery $(2016, \mathrm{p} .16)$ provided a 'representative sample' of the Australian empirical literature on scale economies in local government. This body of work had a number of shortcomings, including a near universal assumption that all other factors are co-linear with population (ignoring the possibility, for example, that income may rise as population increases), a general assumption that expenditure was homogeneous (thereby assuming away local exogenous influences) and almost all studies used one-year datasets. Moreover, empirical evidence for the existence of scale economies was 'mixed'. It could thus not be used to buttress claims for the ubiquity of scale economies in local government services, such as that made by Council Solutions (2018).

## 3. Recent Australian Empirical Work on Scale Economies in Waste

In his report, Dollery (2016, p.17) noted that 'only a comparatively limited number of attempts have been made to empirically investigate scale economies in Australian local government', with 'even less effort has been invested on the important question of scale in municipal waste services'. Indeed, only three empirical studies had been published in the peer-reviewed empirical literature: Worthington and Dollery (2001), Carvalho, Marques and Dollery (2015) and Drew, Kortt and Dollery (2016). We briefly summarize these studies and
their chief findings. In addition, we summarize a new paper by Tran, Kortt and Dollery (2018) - published in the British journal Local Government Studies - which deals directly with the question of scale economies in South Australian local government.

### 3.1 Worthington and Dollery (2001)

Worthington and Dollery (2001) used data envelopment analysis (DEA) to estimate the technical and scale efficiency of the domestic waste management function in 103 NSW local authorities. After allowance was made for nondiscretionary environmental factors that may affect the provision of these local public services, such as congestion and the inability to operate machinery effectively in densely populated urban areas, a comparison of efficiency across geographic/demographic criteria was drawn. Worthington and Dollery (2001) established that - on average - waste management inputs could be reduced to just over $65 \%$ of the current level based upon observable best practice, while productivity losses due to scale effects account for slightly over $15 \%$ of total inputs. Worthington and Dollery (2001) also found that inefficiency in urban developed councils is largely the result of congestion and other collection difficulties encountered in densely populated areas, while inefficiency in regional and rural councils derived from an inability to attain an optimal scale of operations. In terms of nondiscretionary inputs, Worthington and Dollery (2001) employed eight categories: the number of properties receiving 'Domestic Waste Management Functions' (DWMS); the occupancy rate (i.e. council population divided by the number of serviced properties); urban density (i.e. urban population divided by the urban residential area); population distribution (i.e. the sum of population centres greater than 200 residents multiplied by their distance from council headquarters divided by the number of urban properties); and an index of waste disposal costs (based on the standardized tonnage of garbage collected, the cartage distance to the receiving depot, and the receiving charge at that depot). These measures were identical to those employed by the NSW Local Government

Grants Commission (LGGC) to calculate expenditure disability factors in DWMS (NSW Local Government Grants Commission, 1994). The occupancy measure recognizes the variation in DWMS expenditures required for households with a higher than average occupancy rate, the urban density measure indicates the constraints placed on operating machinery in densely populated areas, while the measure of population distribution indicates costs associated with travel and duplication of services in local government areas (LGAs) where population is widely dispersed. In sum, Worthington and Dollery (2001) found that - in urban areas like the Adelaide area in Councils Solutions (2016) and Council Solutions (2018) - the major source of inefficiency lay in congestion and not in scale. Council Solutions (2018) claim that scale economies underpin service cost reductions is thus contradicted.

### 3.2 Carvalho, Marques and Dollery (2015)

Carvalho, Marques and Dollery (2015) empirically investigated economies of scale and economies of output density in the waste collection sector in the NSW local government system in an effort to identify the optimal size of provider entities from the perspective of cost efficiency. Carvalho, Marques and Dollery (2015) found that NSW municipal waste services are not efficient in terms of costs, thereby demonstrating that 'bigger is not better' in the municipal waste services sector.

With respect to sampling and methodology, Carvalho, Marques and Dollery (2015) employed sample data on the waste collection service in 184 local utilities in NSW (where there are councils with more than one utility). The data sample was observed over a period of six years - between 2000/01 and 2005/06 - and was collected from the (then) NSW Division of Local Government.

Carvalho, Marques and Dollery (2015) estimated five different models for the cost function. In the first model, the structure of panel data was not considered (Model I - Pooled model) and it was assumed that the observations are all independent of each other, ignoring the fact
that some observations correspond to the same entity, but were observed at different points in time (i.e. different years). Two models where the structure of panel data and the inefficiency of the utilities are constant throughout the study period were assumed (Time-invariant inefficiency models): Model II (Fixed-effects) and Model III (Random-effects). Finally, two other models were employed, where - in addition to considering panel data - it was also assumed that the inefficiency of the utilities underwent variation throughout the study period (Time-varying inefficiency models): Model IV (True fixed-effects) and Model V (True random-effects). Detailed statistical findings can be found in Carvalho, Marques and Dollery (2015).

Carvalho, Marques and Dollery (2015) drew several conclusions from their empirical analysis. It is important to note in the context of this Report, they observed that 'bigger is not better' in waste collection. Put differently, it is not efficient in terms of costs that the waste collection utilities increase their size in NSW local government. Indeed, the optimal size of these utilities was estimated by Carvalho, Marques and Dollery (2015) to be roughly the median size of the existing utilities in the sector. The median size in the sample above is significantly less than the population in the proposal presented by Council Solutions (2018).

### 3.3 Drew, Kortt and Dollery (2016)

In 2007, the Queensland Government imposed forced amalgamation on Queensland local authorities with the number of local authorities falling from 157 to just 73 councils. Amalgamation was partly founded on the assumption that increased economies of scale would generate savings. Drew, Kortt and Dollery (2016) empirically examined Queensland local government expenditure pre- and post-amalgamation (2006/07 and 2009/10) for scale economies. For the 2006/07 data, Drew, Kortt and Dollery (2016) found evidence of economies of scale for councils with populations up to 98,000 and thereafter diseconomies of
scale. Moreover, eight percent of councils in 2006/07 (or ten councils) - representing $64 \%$ of the Queensland population - exhibited diseconomies of scale. For the 2009/10 data, the average cost curve remained almost stationary at 99,000 residents per council, but almost $25 \%$ of all councils (or thirteen councils) were now found to exhibit diseconomies of scale. The compulsory merger program thus increased the proportion of Queensland residents in councils operating with diseconomies of scale to $84 \%$.

With respect to scale economies, data constraints meant that Drew, Kortt and Dollery (2016) specifically investigated four categories of council expenditure in 2006/07 and 2009/10: capital expenditure, outlays on roads and related infrastructure, expenditure on parks and gardens, and outlays on domestic waste collection and disposal. They found evidence of ' U shaped' cost curves. For the 2006/07 period, evidence of economies of scale was found for populations up to 98,000 and diseconomies of scale beyond this point. Eight per cent of councils in 2006/07 (10 councils) - representing 64\% of the Queensland population - were found to reside in the segment of the cost curve exhibiting diseconomies of scale. For the 2009/10 data - the most recent set of post-amalgamation data available - the turning point of the cost curve remained almost stationary at 99,000 residents. However, due to the effects of these forced amalgamations nearly a quarter of all councils ( 13 councils) were now found to exhibit diseconomies of scale. The proportion of Queensland residents represented by local governments operating in the diseconomies of scale segment of the cost curve in 2009/10 had thus increased to $84 \%$.

However, in the disaggregated analysis performed by Drew, Kortt and Dollery (2016) economies of scale were only observed for expenditure on parks and gardens, which constitute around $5 \%$ of ongoing Queensland council expenditure. On the other hand, no scale economies were observed for either road or domestic waste collection and removal expenditure. It follows that the findings of Drew, Kortt and Dollery (2016) directly
undermine the claims made by Council Solutions (2018) that cost savings would emerge from its proposal.

### 3.4 Tran, Kortt and Dollery (2018)

A substantial empirical literature has focused on the question of scale economies in local government (see, for instance, Callanan, Murphy, and Quinlivan (2014)). Some of this work has embodied new empirical insights into the analysis of scale economies, particularly on the thorny question of the relationships between population density and scale economies, such as Drew, Kortt, and Dollery (2014). Tran, Kortt and Dollery (2018) extend this line of inquiry by empirically investigating in the South Australian (SA) local government context whether scale economies exist in municipal outlays after the effects of population density and/or population size have been taken into consideration.

Tran, Kortt and Dollery (2018) note that - on initial inspection - it appeared that SA municipal expenditure is characterised by economies of scales. However, they argue that since there is a correlation between population size and population density, it is important to unravel whether the influence of population size on expenditure may be due variations in population density.

Tran, Kortt and Dollery (2018) employed the 2015/2016 database report on SA Local Government Councils, which contains data on the 68 SA local councils, including details on expenditure, population size, population density, population growth (over the last 5 years), and the percentage of the population identified as Aboriginal and Torres Strait Islander. Additional data on the employee wage, unemployment, single parents and aged pensioners was obtained from the Australian Bureau of Statistics (ABS 2017).

In respect of their results, Tran, Kortt and Dollery (2018, p.17) note that 'our findings which are broadly consistent with those of Ladd (1992), Holcombe and Williams (2009), and Drew, Kortt, and Dollery (2014) - indicate that, at first blush, it appears that SA local
government expenditure is characterised by economies of scale'. However, they immediately qualify this by stressing that given 'there is evidence that population size and density are correlated, we separated out these effects by dividing the 68 SA local government areas into four population density groups so that local government areas are compared to other areas with similar population densities'. The net result was 'once our analysis is stratified by population density the evidence for scale economies largely disappears'.

This finding has obvious implications for the Council Solutions (2018) proposal since it is premised on the existence of significant cost savings derived in part from increasing the scale of waste collection and management.

## 4. Veracity of Specific Empirical Claims in Council Solutions (2018)

Council Solutions (2018) makes a number of specific empirical claims for which it offers no supporting evidence. This Report assesses the veracity of the claim that improved efficiency will flow from the Council Solutions (2018) proposal against the existing peer reviewed scholarly literature on the Australian waste sector considered in section 3 of this Report.

### 4.1 Improved efficiencies in the supply of kerbside waste collection services

Council Solutions (2018) makes the following empirical claim regarding efficiency improvements (ACCC, 2018, pp.15/18):
'Council Solutions submits that the Proposed Conduct is likely to result in increased service efficiencies, particularly in allowing collection vehicles to service more than one Participating Council in any run. In particular:

- The successful tenderer will be able to optimise collection routes without regard to council borders.
- In response to a missed service, a vehicle currently serving another council will be able to be re-tasked rather than sending out a new vehicle.
- All spare vehicles will similarly have freedom of movement, reducing the overall number of trucks required.
- The successful tenderer will be able maximise utilisation of vehicles through optimisation of collection routes'.

Council Solutions (2018) offers no independent empirical evidence on this claim. However, as we have seen in section 3 of this Report, Australian empirical work on the waste collection industry can shed light on the veracity of this claim. For example, in their study of waste collection and management in NSW local government, Carvalho, Marques and Dollery (2015) found that the cost of municipal waste collection services to be minimised when the population fell in the range of the median size of the existing utilities in the sector. This finding calls into question the claim by Council Solutions (2018). It also points to the aligned findings of Drew, Kortt and Dollery (2016) in their study of scale in post-amalgamation Queensland local government, which underlined the dangers of diseconomies of scale contingent upon increasing population size served through waste collection. In an analogous vein, Worthington and Dollery (2001) found that congestion to be a significant determinant of the costs of waste collection rather than scale. Since the Council Solutions (2018) proposal does nothing to ameliorate congestion, this finding by Worthington and Dollery (2001) serves to bring into question the veracity of its empirical claim on cost savings through serving a larger population. Furthermore, in their analysis of the impact of population size and population density on the cost of local government service provision in SA local government, Tran, Kortt and Dollery (2018) find that population density is a key determinant of costs. Since the Council Solutions (2018) proposal entirely ignores the impact of density, as well as induces no change in population density in the served area, the Tran, Kortt and Dollery (2018) findings undermines the confidence that can be placed in the Council Solutions (2018) empirical claim on service efficiency improvements.

In sum, all available peer-reviewed empirical evidence on the Australian waste collection and management sector casts doubt on the claim by Council Solutions (2018) that its proposal will generate 'increased service efficiencies'.

## B. sullen

## Brian Dollery PhD 16 August 2018

## References

Australian Competition and Consumer Commission (ACCC), Draft Determination on Council Solutions Application for Authorisation AAl000414 (Joint procurement, negotiation and contracting for kerbside waste collection services), ACCC, Adel aide.

Carvalho, P , Marques. R. and Dollery B. E. (2015), 'Bigger Better? An Empirical Analysis of Waste Management in New South Wales', Waste Management, 39, 277-286.

Council Solutions (2015), Supporting Submission, Council Solutions, Adelaide.
Council Solutions (2016), Written Submission after Draft Determination, Council Solutions, Adelaide.

Council Solutions (2018), Application for authorisation for Waste Collection Services: Public Register Version, Council Solutions, Adelaide Drew, L., Mort, M. and Dollery, B. E. (2016), 'Did the Big Stick Work? An Empirical Assessment of Scale Economies and the Queensland Forced Amalgamation Program', Local Government Studies, 42(1), 1-14.

Tran, C., Wort, M. A. and Dollery, B. E. (2018), 'Population Size or Population Density? An Empirical Examination of Scale Economies in South Australian Local Government, 2015/16', Local Government Studies (in print).

Worthington, A. C. and Dollery, B. E. (2001), 'Measuring Efficiency in Local Government: An Analysis of New South Wales Municipalities' Domestic Waste Management Function', Policy Studies Journal, 29(2), 232-249.

