

Domestic waste management in Campbelltown City Council and Fairfield City Council

5 JUNE 2019



NEW SOUTH WALES AUDITOR-GENERAL'S REPORT

PERFORMANCE AUDIT

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Financial audits are designed to add credibility to financial statements, enhancing their value to end-users. Also, the existence of such audits provides a constant stimulus to entities to ensure sound financial management.

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Performance audits are reported separately, with all other audits included in one of the regular volumes of the Auditor-General's Reports to Parliament – Financial Audits.



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In accordance with section 421D of the *Local Government Act 1993*, I present a report titled
'Domestic waste management in Campbelltown City Council and Fairfield City Council'.

A handwritten signature in black ink, appearing to read 'Margaret Crawford'.

Margaret Crawford

Auditor-General
5 June 2019

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Section one

Domestic waste
management in
Campbelltown City Council
and Fairfield City Council

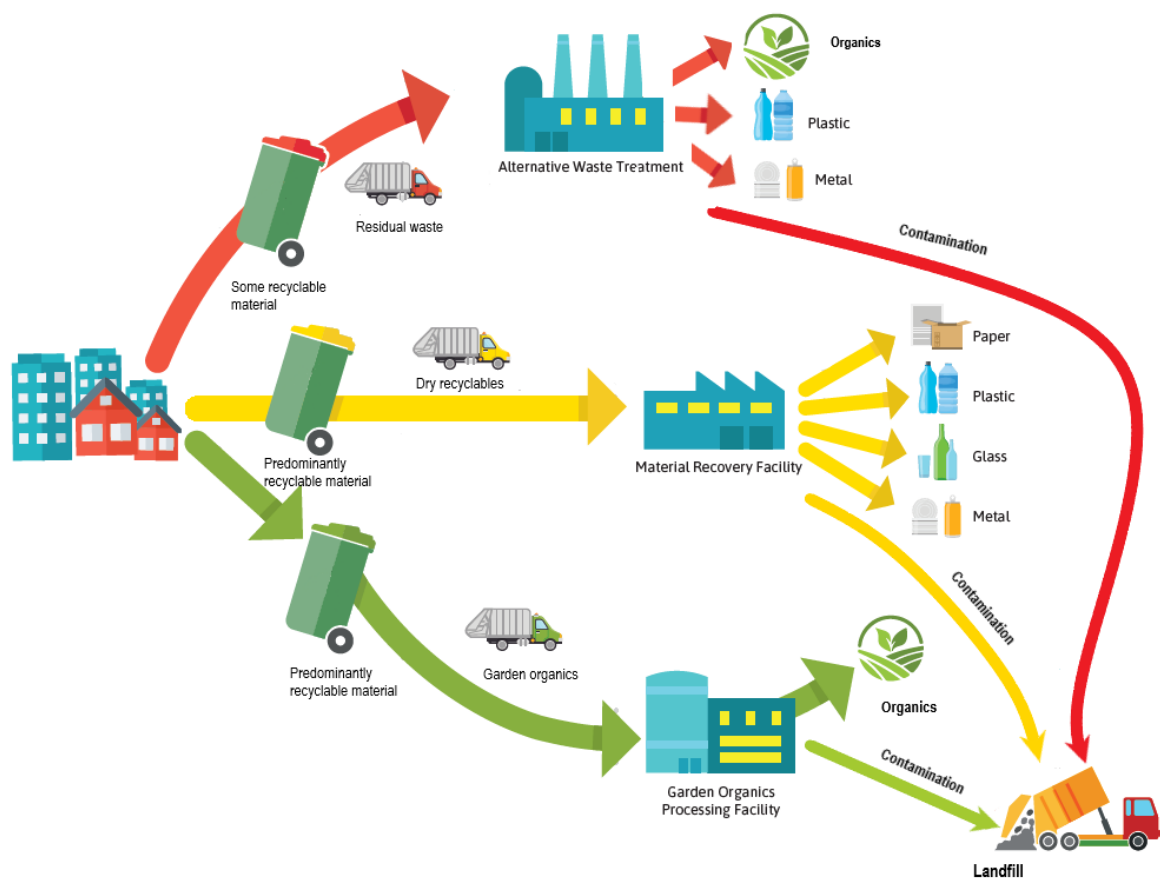


Executive summary

Local councils provide waste management services to their residents. They collect domestic waste primarily through kerbside services, but also at council drop-off facilities. Waste management is one of the major services local councils deliver. Each year, councils collectively manage an estimated 3.5 million tonnes of waste generated by New South Wales residents.

Waste disposed of in landfills attracts a NSW Government waste levy. Councils' kerbside services help residents to separate recyclable and non-recyclable waste. This reduces the cost of waste disposed to landfill. These services typically provide yellow-lid bins for dry recyclables, green-lid bins for garden organics and red-lid bins for residual waste. To increase the level of recycling, some councils deliver residual waste to alternative waste treatment facilities for processing. This can involve composting and the recovery of resources, including plastics and metals, which can be recycled.

Exhibit 1: Managing domestic kerbside waste to maximise recycling



Source: Audit Office research, 2018.

The NSW Government's target is to increase the municipal solid waste recycling rate to 70 per cent by 2021–22.

This audit assessed how effectively and economically Campbelltown City Council and Fairfield City Council are managing domestic kerbside waste collection, transportation and processing. In making this assessment, the audit examined whether:

- Councils' activities lead to residents putting recyclable materials into correct recycling bins
- Councils have effective and economical arrangements to collect, transport and process domestic kerbside waste to maximise recycling rates and minimise costs
- Councils are increasing the domestic kerbside recycling rate and meeting their targets.



Conclusions

Campbelltown City Council

Campbelltown City Council undertakes activities recommended by the Environment Protection Authority (EPA) to encourage residents to put recyclable materials into correct recycling bins – such as requiring adequate waste facilities (e.g. bin storage and disposal chutes) in new multiple unit dwellings, providing bin collection systems (size, number and type of bins), providing financial incentives for residents to minimise waste, and educating residents on how to sort waste. However, the Council cannot demonstrate its education efforts are effective. It does not conduct waste audits or bin inspections to monitor residents' waste sorting habits, so does not have adequate data to measure the impact of its activities or direct efforts where they are likely to have the most effect. The Council also only dedicates one officer to waste education – limiting coverage for the size of the Council area. The Council has not ensured all new multiple unit dwellings have sufficient and appropriate waste storage facilities, which hampers the use, amenity, movement and handling of waste.

The Council collects, transports and processes domestic kerbside waste at a low cost and with high community satisfaction. Recyclable material is effectively recovered from its green-lid and yellow-lid bins, but not from its red-lid bins. Almost all red-lid bin waste goes to landfill because, despite its efforts, the Council has not been able to enforce all aspects of its waste processing and disposal contract. According to EPA data, the red-lid bin waste generated by the Sydney metropolitan area exceeds the capacity of the three red-lid bin treatment plants that service it – limiting the Council's ability to ensure its contractor recovers recyclables and organics otherwise destined for landfill.

The Council's recycling and diversion from landfill rates are behind State targets principally because most of its red-lid bin waste is not processed. It is meeting the State target to reduce waste generated by residents.

Fairfield City Council

Fairfield City Council undertakes EPA-recommended activities to encourage residents to put recyclable materials into correct recycling bins – such as requiring adequate waste facilities (e.g. bin storage and disposal chutes) in new multiple unit dwellings, providing bin collection systems (size, number and type of bins), providing financial incentives for residents to minimise waste, and educating residents on how to sort waste and dedicates three officers to waste education. The Council has not ensured all new multiple unit dwellings have sufficient and appropriate waste storage facilities, which hampers the use, amenity, movement and handling of waste.

The Council undertakes bin audits and inspections to monitor residents' waste sorting habits and direct its efforts, but Council's audit data shows residents' waste sorting has deteriorated since 2015. The Council's activities have therefore not proven to be effective, and it has not determined the reasons and what changes are needed.

The Council processes domestic kerbside waste at a low cost. Community satisfaction with waste collection and transportation is high, but the Council has not tested the market to see if its in-house service represents value for money. Recyclable material is effectively recovered from the Council's yellow-lid bins, but not from its red-lid bins. Its red-lid bin waste goes to landfill because, despite its efforts, it has not been able to enforce its contract. A reason is that, according to EPA data, the red-lid bin waste the Sydney metropolitan area generates exceeds the capacity of the three red-lid bin treatment plants that service it.

The Council's recycling and diversion rates from landfill are behind State targets principally because its red-lid bin waste is not processed. It is meeting the State target to reduce waste generated by residents.

Data shows processing capacity for Sydney's red-lid bin waste is insufficient

Operator data shows that the alternative waste treatment facilities in Sydney (two plants) and Woodlawn (250km from the Sydney metropolitan area) have a combined capacity to process less than 500,000 tonnes of red-lid bin waste per year, compared to the 1.1 million tonnes households in the Sydney metropolitan area generated in 2014–15 (latest available EPA data).

There is no strategy for ensuring Sydney has access to adequate waste infrastructure

The EPA's Waste and Resource Recovery Infrastructure Strategy 2017–21, Draft for consultation (2017) predicted 16 more waste treatment facilities, including three alternative waste treatment plants, were needed for the Sydney metropolitan area by 2021 to achieve the State's recycling target. The draft strategy also recognised the push for narrower roads in new subdivisions may generate demand for smaller collection vehicles that need to be supported by nearby transfer stations.

The 2018 NSW Parliamentary inquiry into 'Energy from waste' technology also found a projected shortfall of waste processing services across the State and no plan to address this. The 2018 Senate Inquiry into the waste and recycling industry in Australia found governments had failed to make the policy decisions required to ensure adequate investment in recycling infrastructure.

The Department of Planning and Environment (DPE)¹ advises it is working with the EPA on a:

- 20-year waste strategy, including a plan for improving waste infrastructure
- planning guideline for waste transfer stations and recycling facilities, intended to help streamline the approval and construction of those facilities.



1. Recommendations

Campbelltown City Council and Fairfield City Council should:

1. better measure, monitor, and evaluate the effectiveness of their activities in improving residents waste-sorting habits, in order to make adjustments as needed
2. ensure all new buildings have adequate and appropriate waste storage facilities, to make it easy for residents to sort their waste properly
3. obtain more information on the costs of other viable options for waste collection, transportation, processing and disposal, in order to determine if there is a need to change existing arrangements.

¹ This audit was conducted prior to the Administrative Arrangements Order 2019 announced on 2 April 2019. Effective from 1 July 2019, the responsibilities of the Department of Planning and Environment and the EPA will reside with the newly created Department of Planning, Industry and Environment.



1. Introduction

1.1 What is domestic waste?

Waste is any discarded item, including those that have the capacity to be recycled, re-used or recovered.

Municipal waste is waste from households and local government operations. This includes waste placed at the kerbside, street sweeping, council engineering works and public council bins. Domestic waste is all waste generated by households and comprises 95 per cent of all municipal solid waste.

1.2 Role of local councils in managing waste

The *Essential Service Act 1988 No 41*, requires councils to provide waste management services to their residents. Waste management is one of the major services provided by councils. In New South Wales councils manage over 3.5 million tonnes of waste generated by residents each year. Local councils collect domestic waste through kerbside services, kerbside bulk waste collection and at council drop-off facilities. Of these, kerbside services collect the most domestic waste.

Exhibit 2 shows the role councils play in managing domestic kerbside waste services.

Exhibit 2: Role of local councils in managing domestic kerbside waste



Source: Audit Office research.

1.3 Role of the NSW Government

The NSW Government regulates the transportation, collection, treatment, storage and disposal of waste. It is responsible for the state-wide policies and programs designed to reduce waste, increase recycling and improve community waste disposal behaviours. The two key State government agencies involved are the NSW Environment Protection Authority (EPA) and Department of Planning and Environment (DPE). The EPA is primarily responsible for waste regulation and the DPE is responsible for land-use planning in New South Wales and is a consent authority for major waste infrastructure such as processing facilities and landfills for New South Wales.

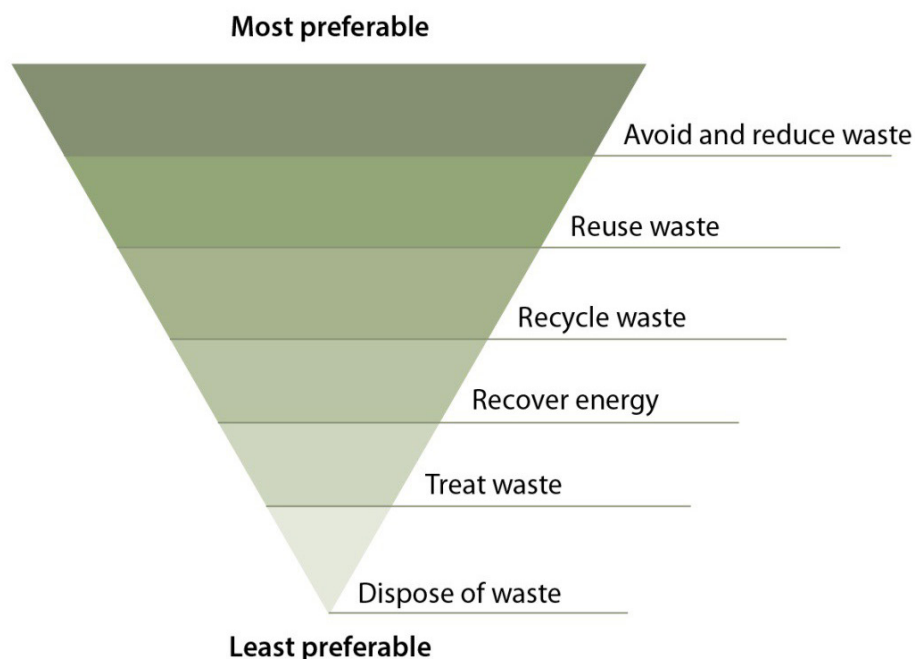
1.4 NSW Waste Avoidance and Resource Recovery Strategy

The NSW Waste Avoidance and Resource Recovery Strategy 2014–21 is a framework for waste management. It includes six key results areas for targeted actions:

- avoid and reduce the generation of waste
- increase recycling
- divert waste from landfill
- manage problem waste better
- reduce litter
- reduce illegal dumping.

The Waste Avoidance and Resource Recovery Strategy is guided by a waste hierarchy which underpins the objectives of the *Waste Avoidance and Resource Recovery Act 2001*. The hierarchy helps focus attention and effort on activities that achieve the greatest efficiencies in cost, time and resources. Exhibit 3 shows the order of preferred approaches to achieve efficient resource use.

Exhibit 3: Waste hierarchy



Source: The Waste Avoidance and Resource Recovery Strategy 2014–21.

The strategy has six long-term targets. Three targets are relevant to kerbside waste collection. The targets are not mandatory for individual councils, but by 2021–22, councils that adopt the targets expect to:

- avoid and reduce the amount of waste generation per person
- increase municipal solid waste recycling rates to 70 per cent
- increase waste diverted from landfill to 75 per cent.

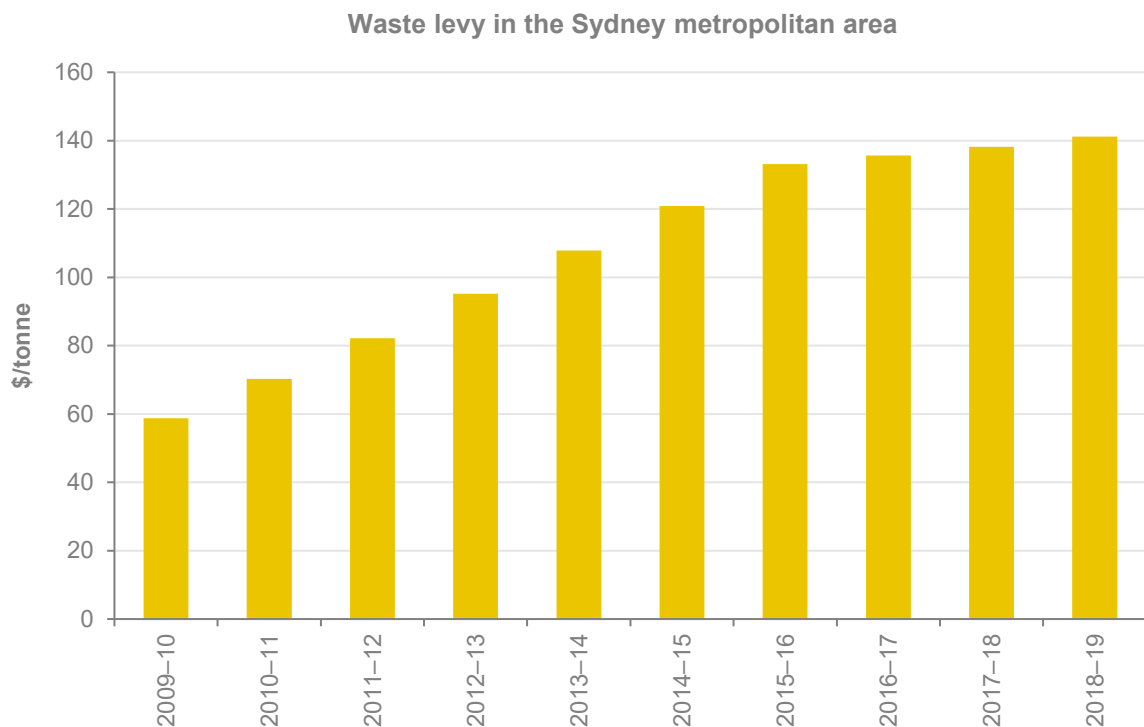
The first target aims to improve the efficient use of materials across the community and avoid generating unnecessary waste. The second target aims to increase the amount of recycled material that is put back into the productive economy. The third target refers to the alternative pathways for materials entering the system that avoid disposal to landfill, such as recycling and energy recovery.

1.5 Waste levy

The NSW Government uses several methods to encourage stakeholders to divert waste from landfill, the key driver being a levy that applies to all waste disposed of in landfills within the leviable area. The levy increases each year to provide a financial incentive that makes alternatives, including recovery and recycling programs, more attractive than disposing of waste into landfill.

In 2018–19, the waste levy in the Sydney metropolitan area was the highest in Australia. Over the past ten years, the levy has increased by 140 per cent, from \$58.80 per tonne in 2009–10 to \$141.20 per tonne in 2018–19. Exhibit 4 shows the increase in the Sydney metropolitan waste levy over the last ten years.

Exhibit 4: Waste levy in the Sydney metropolitan area between 2009–10 and 2018–19



Source: The NSW Environment Protection Authority, 2018.

1.6 Waste Less, Recycle More funding initiative

The Waste Less, Recycle More initiative supports the Waste Avoidance and Resource Recovery Strategy. The initiative aims to provide \$802 million over the period 2013–21 from waste levy revenue to grants and programs that support investment in recycling infrastructure, encourage innovation, improve recycling behaviour, develop new markets for recycled materials and tackle littering and illegal dumping.

EPA data indicates that councils received \$112 million of the \$292 million spent through the initiative up to July 2016.

1.7 Waste management facilities

Waste management facilities generally comprise transfer stations, resource recovery facilities and landfills.

Transfer stations are used for collecting and transferring waste materials or resources. They receive, sort, compact, temporarily store and distribute waste, and load and unload waste to and from road or rail transport.

Resource recovery facilities are designed to sort and process discarded materials using various mechanical, biological and thermal technologies. They include:

- alternative waste treatment facilities
- garden organics processing facilities
- material recovery facilities.

Landfills are sites that bury waste. Regulated landfills that accept household waste must be designed to prevent pollution of surrounding groundwater. They must be located a safe distance from residential and commercial areas to minimise the effects of noise and odour.

1.8 About the audit

This audit assessed how effectively and economically Campbelltown City Council and Fairfield City Council are managing domestic kerbside waste collection, transportation and processing. In making this assessment, the audit examined whether:

- Councils' activities lead to residents putting recyclable materials into correct recycling bins
- Councils have effective and economical arrangements to collect, transport and process domestic kerbside waste to maximise recycling rates and minimise costs
- Councils are increasing the domestic kerbside recycling rate and meeting their targets.

The audit focused on domestic kerbside services.

The responses of the Councils to the audit report are at Appendix one. Further information on the audit scope and criteria is at Appendix two.



2. Progress against targets

2.1 Key findings

Both Councils have adopted the NSW Waste Avoidance and Resource Recovery Strategy targets.

In line with the State target, waste generated per person in both Councils was marginally lower in 2017–18 than in 2013–14.

However, there is a large gap between their recycling rates and the target.

2.2 Waste generation per person

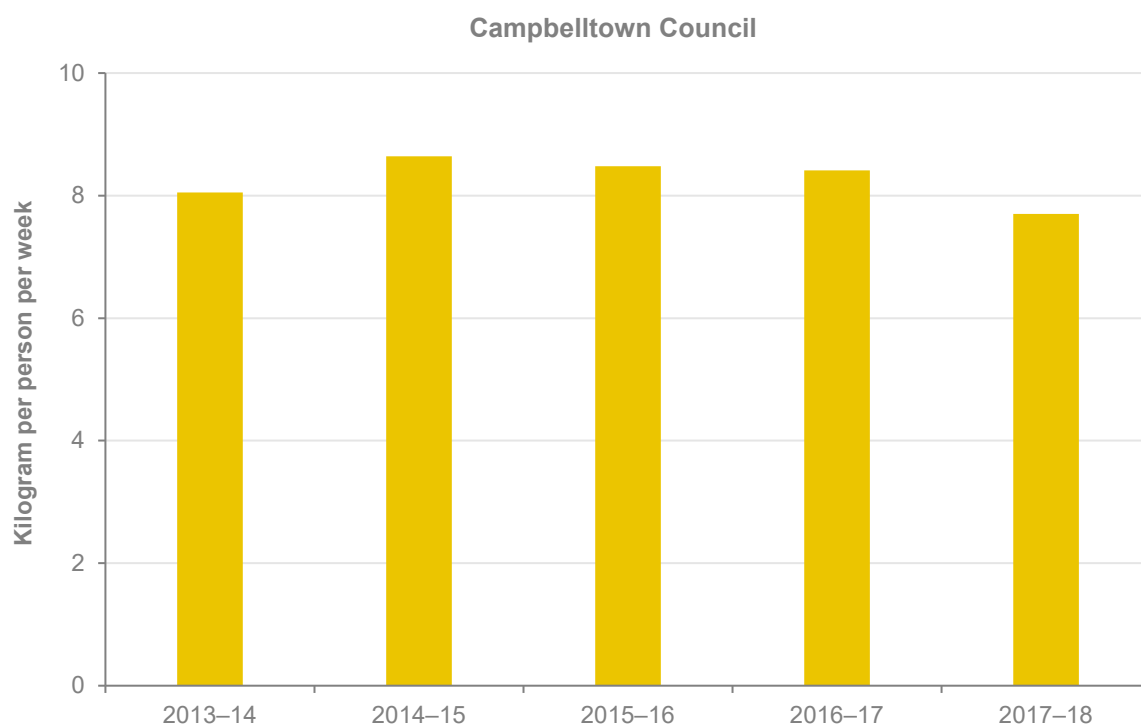
Waste generated per person within both Council areas is marginally lower than in 2013–14

The NSW Waste Reduction and Resource Recovery Strategy has a target to avoid and reduce the amount of waste generated per person by 2021–22.

Total waste generated per person is reducing at both Councils.

Between 2013–14 and 2017–18, Campbelltown Council's waste generation per person reduced by four per cent, from 8.1 to 7.7 kilograms per person per week. This includes waste collected through council clean-ups. Over the same period, total kerbside bin collection reduced by 12 per cent, from 7.4 to 6.6 kilograms per person per week. Exhibit 5 shows domestic waste generated per person at Campbelltown Council.

Exhibit 5: Total domestic waste generated per person at Campbelltown Council

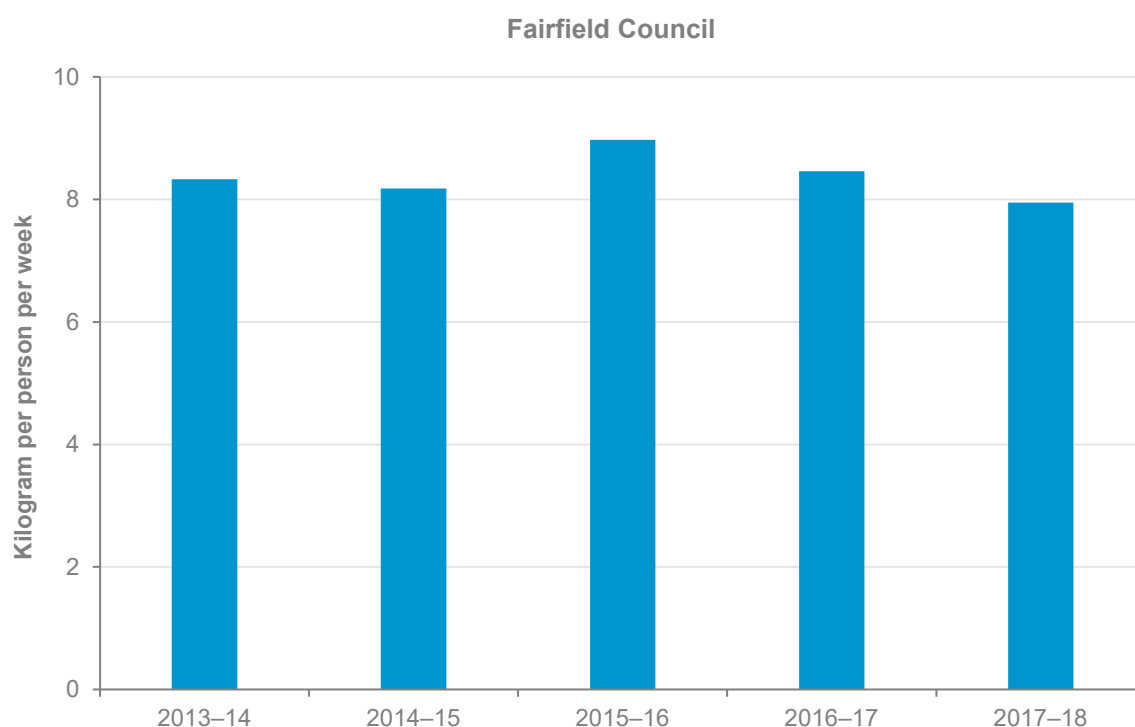


Note: The data includes bin collection and kerbside clean-ups.

Source: Weighbridge and population data provided by Campbelltown City Council, 2018.

Between 2013–14 and 2017–18, Fairfield Council’s waste generation per person reduced by five per cent, from 8.3 to 7.9 kilograms per person per week. This includes waste collected through council clean-ups. Over the same period, total kerbside bin collection reduced by six per cent, from 7.6 to 7.1 kilograms per person per week. Exhibit 6 shows domestic waste generation per person at Fairfield Council.

Exhibit 6: Total domestic waste generated per person at Fairfield Council



Note: The data includes bin collection and kerbside clean-ups.

Source: Weighbridge and population data provided by Fairfield Council, 2018.

2.3 Recycling rates and diversions from landfill

There is a large gap between the Councils’ recycling rates and the State target

The NSW Waste Reduction and Resource Recovery Strategy has targets to increase municipal solid waste recycling rates to 70 per cent and waste diverted from landfill to 75 per cent by 2021–22.

The Strategy defines the recycling rate as the proportion of all materials recycled in a given year (measured in tonnes) compared with the sum of waste generated in the same year. Recycling excludes recovery of energy from waste processes.

Over the last five years, recycling rates at:

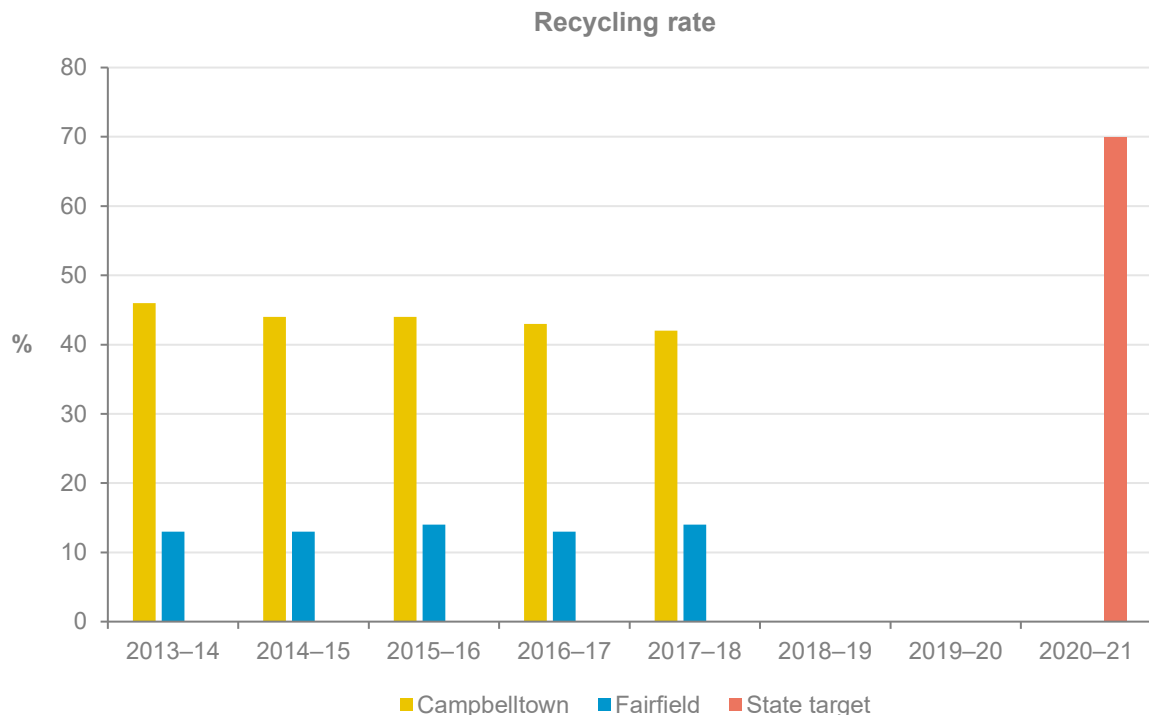
- Campbelltown Council reduced by four per cent
- Fairfield Council increased by one per cent.

In 2017–18, recycling rates in Campbelltown and Fairfield local government areas were 42 per cent and 14 per cent respectively.

Recycling rate data used in this report was obtained from Council records of verified weighbridge data provided by operators and data provided by processing facilities. Data on recycling rates has limitations. While data on waste generated is specific and reliable, data on waste recycling is not specific and less reliable. Specific data on the amount of waste recycled is not collected. The closest proxy is the recovery rate. Processing facilities measure this rate and councils have no way of assuring it is accurate. This rate is for the whole facility. It is not specific to individual councils because facilities combine waste from several councils before processing it.

Exhibit 7 shows recycling rates in Campbelltown and Fairfield Councils against the State target.

Exhibit 7: Recycling rates in Campbelltown and Fairfield Councils



Source: Data from weigh bridges and processing facilities provided by Campbelltown City Council and Fairfield City Council, 2018.

The introduction of the Container Deposit Scheme has made it harder for councils to meet their targets, as it provides an incentive for people to cash-in their containers rather than putting them in the yellow-lid bin. Having said this, the material is still recycled albeit not counted towards council targets.

The drought has also made it harder to achieve recycling rates. Less growth leads to less garden organic waste, and therefore garden organic waste as a proportion of total waste has declined. The insufficient processing capacity of both alternative waste treatment and food and garden organic facilities has also made it harder for councils to meet the State recycling target.

The State waste diversion target refers to alternative pathways, such as recycling and energy recovery, that avoid waste disposal to landfill. New South Wales does not have a facility to process waste into energy, so the waste diversion target equates to a recycling rate target.



3. Minimising and sorting waste

3.1 Key findings

Both Councils undertake activities to encourage residents to minimise waste and put items in the correct bins. These activities are in line with EPA guidelines, and include requiring adequate waste facilities (e.g. bin storage and disposal chutes) in new multi-unit dwellings, providing bin collection systems (size, number and type of bins), providing financial incentives for residents to minimise waste, and educating residents on how to sort waste.

On average, residents in both Councils each generated slightly less waste in 2017–18 than in 2013–14. However, neither Council can show it is effectively ensuring residents put their waste into the correct bins. Fairfield Council's waste audits show residents are not sorting their waste as well as they did in 2015. Campbelltown Council does not monitor residents' waste sorting habits.

In line with the EPA guidance, Fairfield Council conducts some targeted education for residents based on its waste audit and bin inspection results. This education could be more effective if the Council collected more detailed information. Campbelltown Council does not conduct targeted education or collect information on residents' waste sorting habits.

Neither Council evaluates the overall success of their initiatives to encourage residents to reduce and sort waste to determine what changes are needed to improve waste sorting by residents.

Neither Council's Local Environmental Plan treats waste collection as an essential service. This inhibits their ability to ensure new developments include well-designed waste storage facilities.

The 2018 Senate Inquiry into the waste and recycling industry in Australia commented that waste services are likely to be cheaper and more effective if waste is minimised in the first instance and residents put their waste into the correct bins.

3.2 Monitoring residents' behaviour

Neither Council can show it is effective in ensuring residents put waste into the correct bins

Fairfield Council's waste audits show residents are not sorting their waste as well as they did in 2015. The results of its last two waste audits show that between 2015 and 2017:

- the weight of dry recyclables in red-lid bins fell by 57 per cent, from 5.0 to 2.1 kilograms
- the contamination rate in yellow-lid bins increased three per cent, from 19 to 22 per cent
- the proportion of dwellings that included material in plastic bags in yellow-lid bins increased by 65 per cent, from 13 to 78 per cent.

Campbelltown Council does not have current and comprehensive data on how effectively residents sort their waste, because it does not conduct waste audits. In 2018, the Council conducted a visual inspection of garden organics delivered to the processing facility. The Council advised that the collected information helped the Council to establish a baseline and identify areas that need targeted intervention to reduce the level of contamination for garden organics.

Neither Council can demonstrate the success of its efforts to improve residents' waste sorting habits

Neither Council routinely evaluates efforts to change behaviour or sets measurable, outcome-focused criteria to evaluate their overall performance. As a result, they do not know which initiatives work, which do not and why.

Fairfield Council conducts waste audits, but Campbelltown does not

Over the last five years, Fairfield Council conducted three waste audits.

The EPA encourages all councils to perform waste audits as part of routine monitoring and evaluation of kerbside service. Exhibit 8 shows the EPA's requirements for conducting waste audits.

Exhibit 8: EPA specific requirements for waste audits

The EPA guidelines for collecting household waste data and performing waste audits recommend:

- a minimum sample size of 220 households for audits of combined domestic waste streams, residual waste and garden organics, and a minimum size of 260 households for dry recyclable audits
- undertaking a waste audit over one to two weeks period
- collecting, bagging, sorting and analysing the contents of each household's individual bins
- random sampling of streets and households.

Best practice is to perform waste audits annually.

Source: Guidelines for Conducting Household Kerbside Residual Waste, Recycling and Garden Organics Audits in NSW Local Government Areas 2008 – Addendum 2010, Environment, Climate Change and Water.

Domestic waste audits help councils to:

- understand the communities' waste disposal habits
- identify areas with excessive levels of contamination and the prevailing contaminants
- develop strategies to increase and improve waste sorting
- assess changes associated with the introduction of new programs and initiatives.

Fairfield Council's waste audits provide information on waste composition by bin type, contamination levels, prevailing contaminants and areas with a high level of contamination in dry recyclables.

Campbelltown Council has not conducted regular waste audits in the last five years. The Council advised that it cannot justify the cost of the audits, because contamination levels have no bearing on the price they pay for processing.

Campbelltown Council has not done any bin inspections over the past five years, and Fairfield limits inspections to multi-unit dwellings

Experts regard bin inspections and tagging programs that use a combination of information, incentives and enforcement to reduce contamination and increase resource recovery as good practice. Ideally, these activities should supplement information collected in waste audits. Exhibit 9 shows the bin inspection and tagging process.

Exhibit 9: Bin inspection and tagging process

Bin inspectors visually assess each bin's contents at the kerbside before collection. They tag each bin with specific feedback on its contents and general guidance on what can and cannot be placed in the kerbside bin.

Source: Audit Office research, 2018.

Bin inspections enable councils to collect more information on residents' behaviours across the broader local government area. Bin tagging provides direct feedback to households on the contents of their residual waste, dry recyclables and garden organics bins.

Fairfield Council does not have a comprehensive bin inspection program, but regularly inspects yellow-lid bins in multiple unit dwellings. Waste audits identified these had higher levels of contamination than single dwellings.

Campbelltown Council has not conducted bin inspections in the last five years.

Exhibit 10 shows kerbside bin inspection and tagging at Fairfield Council.

Exhibit 10: Bin inspection and tagging at Fairfield Council

Fairfield Council inspects and tags dry recyclable bins in multiple unit dwellings. The inspectors visually assess contamination levels and use a:

- **green tag** - no or low contamination
- **yellow tag** - medium contamination
- **red tag** - high contamination.

Inspection results are recorded and monitored. Multiple unit dwellings that improve performance receive a certificate of appreciation to reinforce good behaviour. Council waste education officers visit and door-knock multiple unit dwellings with repeated high contamination levels.



Source: Fairfield City Council, 2018.

Bin inspections and tagging can be enhanced by installing electronic tags on waste bins and cameras on the waste collection trucks to:

- identify dwellings that persistently contaminate bins
- identify lost bins
- collect actual data on waste generation by bin type and by dwelling.

Both Councils have cameras on waste collection trucks to identify contaminated loads, but they do not use electronic tags.

3.3 Educating residents to minimise and sort waste properly

Both Councils use programs and media to educate residents on how to minimise and sort waste

According to the EPA, educating residents to place items in the correct bins helps maximise recycling and minimise contamination. Contamination can be due to residents not understanding what is and is not recyclable.

Both Councils run education programs that include participating in community events, sponsoring community workshops and running school activities. They provide messages through a range of media, including their websites, Twitter, Instagram, printed materials and newspapers. Both provide information in multiple languages. Fairfield Council places a greater focus on community languages because over 21 per cent of its residents have low or no English literacy skills.

Recently, Campbelltown Council introduced an interactive way to engage residents in minimising and sorting waste. See Exhibit 11: Campbelltown Council's waste education van.

Exhibit 11: Campbelltown Council's waste education van



Campbelltown City Council uses a mobile waste education van to engage and interact with the public at Council events and school visits.

The van project was funded by the EPA's 'Waste Less, Recycle More' program.

Source: Campbelltown City Council, 2018.

Fairfield Council uses targeted interventions to address specific problems and issues

According to the EPA, targeted intervention programs are generally more effective in changing household behaviours than high-level mass-produced education materials.

Fairfield Council focuses its targeted interventions on:

- sorting waste and reducing contamination levels in multiple unit dwelling yellow-lid bins
- reducing items placed in plastic bags in dry recyclable bins.

Waste education in multi-unit dwellings is challenging due to the frequency of rental turnover. This is exacerbated in areas with high numbers of migrants who are unfamiliar with local waste practices and may not have the necessary English skills to understand council guidance. In 2015–16 and 2016–17, Fairfield Council received EPA grants to target poor waste sorting and high contamination rates in multiple unit dwellings. The program included:

- installing over 2,000 new yellow-lid bins in multiple unit dwellings across the local government area
- bin inspections and tagging
- waste audits
- building relationships with strata managers
- community education programs and targeted materials for culturally and linguistically diverse communities.

Fairfield Council has a dedicated education officer who works directly with multiple unit dwellings to decrease waste generated, increase sorted waste and reduce contamination in dry recyclables.

Two years after the initiative began, the Council found that the recycling contamination in individual multiple unit dwellings has reduced between five and ten per cent across the local government area. The Western Sydney Regional Organisation of Councils promotes this initiative as better practice. However, the EPA funding was for two years so the program has been scaled back.

Items placed in plastic bags are regarded as contaminants by most facilities because their automated dry recyclable sorting systems cannot process this waste. Fairfield Council's current contractor accepts and processes items in plastic bags, but future contractors may not. Therefore, Fairfield Council has initiated a targeted program to reduce plastic bags being placed in yellow-lid bins. The program includes signage, flyers and bin tagging.

Campbelltown Council has also identified that multiple unit dwellings require targeted initiatives to reduce overall contamination levels. The Council advises that it has not yet developed targeted interventions due to its limited resources.

Neither Council has formally assessed if they direct sufficient resources to waste education

The EPA's 'Best bin systems' guide highlights the need for strong commitment and resourcing of community education to achieve a resource recovery rate of over 50 per cent.

Campbelltown Council has only one officer dedicated to waste education. This limits its waste education program's effectiveness. It does not have current and comprehensive information on how residents sort waste. It has not developed a waste education strategy or plan to identify priorities for waste education, resourcing and implementation timeframes. Having said this, the Council secured an EPA grant in 2018 to develop such a strategy.

Fairfield Council has three officers dedicated to waste education. One position is funded through the NSW Government's Waste Less, Recycle More grants. Its Waste Management Strategy, which is based on data from waste audits and other sources, acknowledges the need for waste education to help residents minimise and sort waste. Its implementation plans detail priority actions, resource requirements and milestones.

3.4 Waste charges to encourage waste reduction

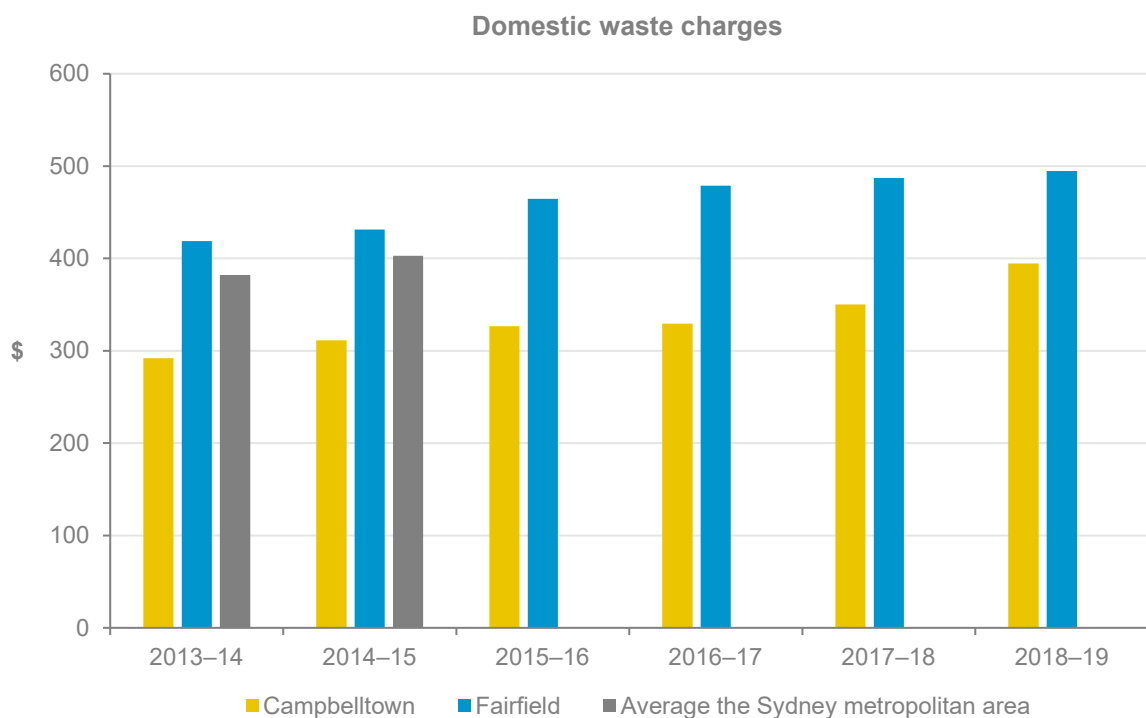
Councils charge residents a base-rate to collect domestic waste and more for extra services

Councils set domestic waste charges. These are included in rates collected from property owners.

Both Councils base their standard domestic waste charge for each household on the average cost of these services across their local government area. In 2018–19, Campbelltown Council and Fairfield Council domestic waste charges were \$394.55 and \$494.57 respectively.

Since 2013–14, domestic waste charges in Campbelltown and Fairfield have increased by 35 per cent and 18 per cent respectively. Over the same period, the waste levy in the Sydney metropolitan area increased by 31 per cent.

Exhibit 12: Domestic waste charges in Campbelltown City Council and Fairfield City Council



Note: At the time of the audit, data on domestic waste charges in the Sydney metropolitan area was not available beyond 2014–15.

Source: Campbelltown City Council and Fairfield City Council. 2018. The Environment Protection Authority Waste Avoidance and Resource Recovery data report 2013–14 and 2014–15.

The most recent available EPA data on average domestic waste charges in the Sydney metropolitan area is for 2014–15. In that year, standard domestic charges in the Campbelltown local government area were 23 per cent lower than the Sydney metropolitan average while charges in the Fairfield local government area were seven per cent higher.

To some extent, waste charges can be used as a tool to encourage waste minimisation. However, the effect is limited for rented properties as the rates are paid by property owners, not tenants. To discourage residents from generating waste, both Councils charge residents for extra bins.

Exhibit 13: Campbelltown and Fairfield Councils charge residents for extra bins

Campbelltown Council charges residents for each extra bin. Red-lid bins are more expensive than green and yellow lid bins. Annual charges for additional bins in 2018–19 are:

- **red-lid bin** - \$195.85
- **yellow-lid bin** - \$97.65
- **green-lid bin** - \$136.70.

In 2018–19, Fairfield Council charged residents an annual 'service' fee of \$490 for extra red and yellow-lid bins. It does not provide green-lid bins.

Source: Audit Office research, 2018.

3.5 Bin systems and facilities to encourage waste reduction

Both Councils provide standardised bins and routine collection times

To help residents sort their waste, the EPA encourages councils to provide bins with coloured lids to signify the type of waste that should go in them. EPA guidance suggests that councils that use Australian Standards bin colours and regular collection times are likely to achieve improved waste sorting and lower levels of contamination. It also suggests that smaller bins for residual waste and reduced collection frequency encourages residents to produce less waste and better sort it.

Campbelltown Council provides a three-bin collection system. This comprises a 140-litre red-lid bin for residual waste collected weekly, a 240-litre yellow-lid bin for dry recycling and a 240-litre green-lid bin for garden organics collected fortnightly. EPA guidelines suggest the three-bin system represents good practice as it enables a higher waste diversion rate from landfill than a two-bin system.

Fairfield Council provides a two-bin system. This comprises a 240-litres red-lid bin for residual waste collected weekly and a 240-litre yellow-lid bin for dry recyclables collected fortnightly. It cannot readily move to a three-bin system because this would break its current contract for processing and disposal of residual waste. Fairfield Council is one of only three councils in the Sydney metropolitan area that does not provide green bins for organic garden waste.

According to the EPA, a best practice three-bin system includes:

- a food and garden organics (FOGO) bin collected weekly
- a dry recyclables bin collected fortnightly
- a residual waste bin collected fortnightly.

This system is recommended for councils with a high proportion of single dwellings, where:

- residents are achieving high recovery rates and low contamination
- there is no access to facilities that process red-lid bin waste
- there is access to food and garden organic processing facilities and markets.

In the Sydney metropolitan area, only Penrith Council had this system at the time of this audit. The system may be worth considering by both Councils when they prepare their next waste processing contracts, partly because the EPA recently limited how organic material produced from red-lid bin waste can be used. This is discussed further in Section 5.4.

Neither Council has ensured that all new multiple unit dwellings have sufficient and appropriate waste storage facilities

The design of waste storage areas affects the use, amenity, movement and handling of waste for the life of a property development.

Local councils are responsible for approving development applications for new dwellings. Both Campbelltown and Fairfield Councils provide guidance and place conditions on new developments. These encourage well-designed storage areas that facilitate sorting and allow easy access to waste collection trucks.

Some new multiple unit dwellings do not have waste storage facilities that adequately support residents' waste sorting because developers have not complied with development approval conditions. This has occurred because Campbelltown and Fairfield Councils have not included waste collection as an essential service in their Local Environmental Plans. Both Councils should address this urgently given their growing urban densification.

Problems include:

- insufficient facilities for the volume of waste generated
- storage facilities that are inconvenient for residents and garbage trucks to access
- single waste chutes that do not support waste stream separation
- difficulties moving bins between storage and collection points
- residents having to resort to keeping bins permanently in the street.

Exhibit 14: Example of a multiple unit dwelling development that does not provide adequate waste storage



This townhouse complex has been built without a waste storage area. Waste bins are permanently left on the nature strip outside the property.

Source: The Audit Office, 2018.



4. Collecting and transporting waste

4.1 Key findings

Both Councils undertake waste collection and transportation to processing facilities effectively. Residents are satisfied with their waste pick up services. Waste is collected and transported to processing facilities with sufficient controls in place to maintain separate waste streams.

In 2013, Campbelltown Council market tested private sector providers and contracted out its waste collection and transportation services. It is managing this contract effectively. The contract has KPIs and cost schedules, and the Council meets the contractor regularly to resolve performance issues.

Fairfield Council manages its waste collection and transportation in-house.

'Economy' is defined as minimising costs for a given level and quality of service. Both Councils use their own networks to obtain insights into similar costs incurred by other councils. However, neither Council formally benchmarks its costs.

Campbelltown Council has minimised its waste collection and transportation costs, and achieved an adequate level of service.

Fairfield Council cannot demonstrate that its in-house waste collection and transportation services are economical.

4.2 Effectiveness of collection and transportation

Waste is picked up from households to the satisfaction of residents

In both Councils:

- resident surveys show high satisfaction with collection and transportation services
- complaints are low.

Both Councils have controls to minimise contamination during collection and transportation

The four main factors that can increase contamination of recyclable waste during collection and transportation are:

- loading the wrong bins for the type of recyclable materials
- using the wrong type of waste collection truck
- loading bins that contain contaminated waste
- excessive compacting of dry recyclables.

Both Campbelltown and Fairfield Councils use colour-coded bin lids. This significantly reduces the risk that the wrong bins will be loaded.

To prevent contamination of recyclable material, both Councils use dedicated collection trucks for each type of waste. The trucks have features that visually identify the type of waste they are designated to collect.

Campbelltown Council's collection contract includes a requirement for trucks to be painted in such a way as to distinguish which type of waste they are to collect. The contract with the service provider includes penalties for using the wrong trucks. Fairfield Council's trucks that collect dry recyclables are significantly larger than the trucks that collect residual waste.

Exhibit 15: Waste collection trucks in Campbelltown local government area



Source: Campbelltown City Council, 2019.

Both Councils have controls to identify contaminated bins. Collection trucks are fitted with cameras to monitor the content of yellow-lid and green-lid bins. They are also fitted with scales. When a bin is found to be excessively contaminated due to its weight, it is left on the kerb for the resident who owns the bin to remove the contamination or cover the cost of disposal. However, if contamination is not detected before the bin is picked up, the driver cannot stop the waste tipping into the truck, even if the driver notices the waste is contaminated.

Both Councils use data from weighbridges to monitor compaction rates compared to the maximum rates they have set.

Research commissioned by the South Australian Government found that in areas where a container deposit scheme operates, a compaction rate of 225 kilograms per cubic metre for dry recyclables can be used without compromising resource-recovery efforts. Both Councils require trucks collecting dry recyclables to compact waste below this rate.

Campbelltown Council closely monitors its contractor's operational performance

Campbelltown Council established KPIs for its contractor that address:

- bin repairs, replacement, emptying (missed service)
- contamination
- regulatory requirements
- driver and vehicle presentation.

The contract allows the Council to obtain variations to services without the need for re-negotiation.

The Council has regular meetings with the contractor to discuss performance. The meetings focus on operational aspects of the service, compliance with regulations and problem properties. The Council also receives regular contractor reports on missed, damaged and stolen bins.

Fairfield Council monitors the effectiveness of its in-house waste collection arrangements. Internal Service Level Agreements are in place and the Council monitors the number of missed bins, bin repairs and replacement, and complaints received. It also conducts monthly Workplace Health and Safety meetings with staff.

4.3 Economy of collection and transportation

Campbelltown Council has minimised its waste collection and transportation costs

In 2013, Campbelltown Council entered into a ten-year contract with an outsourced provider to collect and transport its waste. The contractor was chosen through a competitive process. At inception, it required the contractor to purchase a new fleet of collection vehicles to deliver the services.

The Council's arrangements reflect an increasing trend by Sydney councils to outsource collection and transportation services.

The Council advised it cannot formally benchmark its economy with other councils for commercial-confidentiality reasons.

To mitigate the lack of formal benchmarking opportunities, the Council could engage an experienced consultant with current knowledge of the Sydney market to advise it on the economy of its waste collection and transportation services.

Fairfield Council cannot adequately demonstrate the economy of its arrangements

Fairfield Council uses in-house labour to collect and transport kerbside residual waste and dry recyclables. It advises that this has always been the case for residual waste. The Council advised that using in-house-labour allows more flexible use of resources to meet changing service needs.

The Council has never formally benchmarked the cost of its in-house waste collection and transportation services. It advised that it cannot formally benchmark the cost of its waste collection and transportation services with other councils for commercial-confidentiality reasons. In 1989, despite having no data to show the economy of providing these services, the elected Council made a policy decision to use in-house labour instead of an outsourced contractor. Subsequent elected Councils have not expressed an interest to market test these activities.

4.4 External factors impacting effectiveness and economy

Narrower roads may impact waste collection in the future

New land-use plans in the Sydney metropolitan area include subdivisions with narrow roads that require small waste collection trucks. The EPA's 'Waste and Resource Recovery Infrastructure Strategy: Draft for consultation, 2017' says:

In new subdivisions the push for narrower roads may also generate demand for smaller collection vehicles which will need to be supported by transfer stations in close proximity.

Currently, neither Council uses small waste collection trucks.

Using small trucks is costlier because it requires additional trucks and waste collection runs. This additional cost can be mitigated by the establishment of transfer stations, but current state-determined land-use plans do not include them.

The DPE advised that it is working with the EPA on a planning guideline for waste transfer stations to help streamline the approval and construction of those facilities.



5. Processing and disposing of waste

5.1 Key findings

Campbelltown and Fairfield Councils effectively process waste placed in green-lid and yellow-lid bins. However, neither Council is processing red-lid bin waste effectively. Their contractor accepts the waste delivered to it, but does not process it to meet contractual obligations. Instead, almost all red-lid bin waste of both Councils is sent to landfill. Both Councils have tried to get the contractor to process this waste, but with little success, so their contracts are ineffective.

The Councils have minimised processing and disposal costs. Both Councils have little financial incentive to abandon red-lid bin waste contracts as they are disposing of this waste at a low cost. Also, they have no certainty they would get better recovery rates under different contractual arrangements or with different contractors.

Existing alternative waste treatment facilities do not have the capacity to process Sydney's residual waste. In 2017, the EPA forecast that 16 more processing facilities, including three alternative waste treatment facilities, are needed to meet the recycling target. If the State's recycling and waste reduction targets are not met, more landfills may be needed. Currently, Sydney does not have a waste infrastructure strategy that identifies suitable land and reserves for future facilities.

The market for recyclable materials has also changed. The revenue that processors earn from selling recyclable materials has dropped substantially. This is mainly due to overseas importers no longer accepting much of the material they used to accept.

5.2 Effectiveness of waste processing and disposal

Neither Council effectively processes red-lid bin waste

Both Councils have outsourced the processing and disposal of waste. Their contracts include minimum rates for recovery of recyclable material through processing, which if achieved would deliver the State recycling target.

Recovery rates for yellow-lid and green-lid waste are close to or being met but those for red-lid bin waste are not.

Exhibit 16: Effectiveness of waste processing arrangements in 2017–18

	Campbelltown City Council		Fairfield City Council	
	Contracted rate (%)	Actual rate (%)	Contracted rate (%)	Actual rate (%)
Dry recyclables (red-lid bin waste)	95	87*	90	90*
Garden organics (green-lid bin waste)	96	94*	N/A	N/A
Residual waste (yellow-lid bin waste)	76	3**	80	--

* The overall recovery rate achieved by the processing facilities, which included processing of waste from other sources/clients.

** Recovery rate based on the proportion of the Council's residual waste being processed and the overall facility recovery rate.

Source: Audit Office Research, 2018.

This assessment is based on the best data available. As discussed in Section 2.1, the data used are estimated recovery rates provided by the contractor and not verified by the Councils.

Regardless of the level of processing, the contractors accept waste sent to them by the Councils and what is not recovered goes to landfill.

Neither Council has effective contractual arrangements to manage red-lid bin waste processing

Both Councils use the same contractor for processing residual waste. Both have tried to get their contractors to comply with contractual recovery rates, but without success.

Campbelltown Council has ongoing negotiations with its contractor. These have delivered marginal improvements. The Council took the contractor to court, which resulted in court-ordered compensation. The contractor has indicated a willingness to improve further.

Fairfield Council advised it has been in dispute with its current contractor (and predecessor) since 2009.

The contractor had to decommission an alternative waste treatment facility due to odour affecting residential development. As discussed in the next section, there is a shortfall in processing and treatment facilities in the Sydney metropolitan area.

The red-lid bin waste Sydney generates exceeds the capacity of its treatment plants

This inability of the Councils to get the contractor to meet its obligations for residual waste reflects the insufficient capacity of existing alternative waste treatment facilities to process residual waste generated in the Sydney metropolitan area.

The alternative waste treatment facilities in Sydney and Woodlawn (250km from the Sydney metropolitan area) have a combined capacity to process less than 500,000 tonnes of waste per year. This, represents only 46 per cent of the residual waste generated by households in the Sydney metropolitan area in 2014–15.

The Councils advised that they cannot obtain better recovery rates under different contractual arrangements and at a reasonable price.

5.3 Economy of processing and disposal

Both Councils are minimising waste processing and disposal costs

Both Councils have long-term contracts with private operators for waste processing and disposal. Both Councils entered into contracts with the former WSN Environmental Solutions (WSN) in the early 2000s. At the time, WSN was a public-sector monopoly. In 2011, WSN was privatised and the contracts were transferred to a private company.

Campbelltown Council has a single contract for dry recyclables, garden organics and residual waste. It runs until 2024. Campbelltown Council led the development of this first multi-council waste processing and disposal contract in New South Wales. The contract:

- leveraged greater bargaining power of four councils compared to a single council
- offered the scale needed to drive construction of an additional alternative waste treatment facility.

Fairfield Council has a contract for processing and disposing of residual waste. The contract runs until 2025. Fairfield Council was the first council in New South Wales to process its residual waste through an alternative waste treatment facility.

In 2014, Fairfield Council entered into a new contract for processing dry recyclables. The Council selected a new contractor through a competitive process. Current arrangements for dry recyclables are more cost effective than the previous arrangements.

Both Councils have implemented controls to ensure they only pay for the treatment and disposal of their own waste. Both reconcile contractor charges with records of waste drop-offs. Fairfield Council checks charges regularly, while Campbelltown Council only does this occasionally.

Both Councils use their networks to assess processing and disposal costs, but do not formally benchmark these costs.

The latest information on waste charges and services published by the Councils' contractor indicates that both Councils obtain their residual waste disposal services at a low cost compared to its standard rates. The information also shows that the cost of dry recyclables and garden organic processing services they obtain is relatively low.

Neither Council is financially disadvantaged if the contractor does not process residual waste and meet recovery rates. The contractor absorbs the additional waste levy that results from failing to meet the contracted recovery targets.

5.4 Waste and resource recovery industry

Sydney does not have a strategy to meet its processing and disposal infrastructure needs

The EPA is working on a longer-term waste strategy for New South Wales. The strategy is expected to set a 20-year vision with an aim of reducing waste, encouraging sustainable recycling markets and identifying and improving the State waste infrastructure network.

The 2018 NSW Parliamentary inquiry into 'Energy from waste' technology commented that it 'appears that successive NSW Governments have taken a backseat in waste infrastructure planning and delivery, which has led to a projected shortfall of services across the State'.

The EPA's 'Waste and Resource Recovery Infrastructure Strategy: Draft for consultation, 2017' highlighted that 'significant investment is needed to develop infrastructure that will process this forecast increase in waste volume'. The Draft Strategy predicted that, to meet the State's targets for diverting waste from landfill, the Sydney metropolitan area will require the following new facilities by 2021:

- 3 facilities for processing residual waste
- 2 energy recovery facilities
- 2 dry recyclable processing facilities
- 5 garden organic processing facilities
- 4 food and garden organic processing facilities.

The consultation draft also commented that some capacity for energy recovery may need to be developed and that 'failure to meet the 2021 target (for diversion to landfill) could result in significant increased demand for landfill capacity and an accompanying decrease in demand for resource recovery facilities'.

The Greater Sydney Commission's 'Greater Sydney Region Plan, A Metropolis of Three Cities – connecting people' also commented on waste management facility and landfill infrastructure shortfalls and the associated costs to the community. It also commented that 'identifying suitable sites is challenging due to the potential impacts of odour, truck movements and noise'.

The projected shortfall needs to be considered in the context of the five to ten years it usually takes investors to obtain all the necessary approvals and to build the type of facilities the Sydney metropolitan area needs.

The EPA's longer-term strategy should seek to introduce more contestability in the market or, if this is not feasible, introduce methods to regulate natural monopolies or oligopolies. The EPA advised that it is working with NSW Treasury to improve the functioning of the market.

Parliamentary inquiries have commented on the changing recyclables market, policy gaps and infrastructure shortages

The 2018 NSW Parliamentary Inquiry into 'Energy from waste' technology commented on the 'potential collapse of the State's kerbside recycling system' as a result of China's decision to restrict waste imports. Before January 2018, much of Australia's recyclable waste was exported to China, but a more restrictive Chinese policy, called National Sword, means this is no longer likely to occur. The policy has impacted the global market and Australian prices for recyclable materials have fallen accordingly.

The 2018 Senate Inquiry into the 'Waste and recycling industry in Australia' commented that the 'recycling industry is in crisis' after 'years of failure across all levels of government to make the policy decisions required to put the industry on a solid footing'. It also commented that there 'has also been a failure to adequately invest in recycling infrastructure and technology, develop robust and sustainable domestic markets for recyclables or provide appropriate regulatory frameworks to ensure the future of recycling'.

The NSW Government has established an inter-governmental taskforce to progress a strategic response to the slump in the recyclable materials market, which impacts local councils and the waste industry. The NSW Government also re-purposed up to \$47.0 million of the Waste Less, Recycle More initiative to support local government and industry respond to China's policy.

Section two

Appendices



Appendix one – Responses from local councils

The following appendix includes the formal responses from Campbelltown and Fairfield councils to the findings in this report.

The Audit Office has carefully considered the Councils' responses.

In reference to the issues of concern raised in the Councils' responses we have concluded that, based on objective facts, the findings in this report remain balanced, factual and complete as relevant to the audit scope.

Response from Fairfield City Council



In reply please quote: 19/05914
Your Ref:

Contact: Bradley Cutts on 9725 0123

28 May 2019

Audit Office of New South Wales
Attention: Margaret Crawford, Auditor-General
GPO Box 12
SYDNEY NSW 2001

Dear Ms Crawford,

PERFORMANCE AUDIT - DOMESTIC WASTE MANAGEMENT IN CAMPBELLTOWN AND FAIRFIELD COUNCILS

I am writing in formal response to your Performance Audit – Domestic Waste Management in Campbelltown and Fairfield Councils.

Fairfield City Council believes there are issues that are not adequately addressed or do not provide proper context within the report. Council's formal response provides essential detail to highlight these issues only and does not seek to respond to any matters that it considers being minor in nature with the report's findings.

Significant issues are:

1. The report potentially leads a reader to a view that Fairfield City Council adopted a 2 bin system (red waste bin and yellow recycling bin) at the beginning of its 20 year alternative waste treatment contract with no real strategy of processing the red bin waste, other than taking it to landfill. Nothing could be further from the truth. In fact, Fairfield City Council was the foundation local government partner in a State Government controlled waste process operation, which promised to divert 80% of Fairfield's domestic waste from landfill. Through no fault or cause of Fairfield City Council, the State Government operation failed to meet its promised environmental and waste diversion performance expectations. The State Government operation was then sold off to a private waste industry company which then diverted Council's domestic waste from the processing plant to landfill. Council has maintained its favourable waste pricing under the Contract.
2. Fairfield should be categorised as 'effective' in encouraging residents to appropriately sort their waste as nearly 90% (when including bagged recyclable material) of materials in co-mingled recycling bins is recyclable material. The audit results for Fairfield City Council co-mingled recycling bin audit contamination level is exaggerated, as some residents inadvertently put recyclable materials inside plastic bags. For audit purposes, this is counted as 'contaminated', whereas in real time operations, the Council contracted Material Recycling Facility (MRF) is able to process these bagged materials and recycle them. This is an example of effective contract management.

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3. The report's Executive Summary conclusion stated that 'Council has not ensured all new multiple unit dwellings have appropriate waste storage facilities'. This finding is a generalisation of an example that represents the 'exception' that is not consistent with Fairfield Council's experience.

Council in many cases is not the Principal Certifier for construction of these developments and the included waste storage facilities. Variations between the development approval designs and those considered to be "generally in accordance with" those designs, as deemed appropriate by the Private Certifier, is likely to account for any variation or inconsistency and is a matter outside Council's control or influence.

Council has very successfully integrated approximately 65 new multi-unit developments into its domestic waste operations over the past 5 years. These developments range from high rise towers to lower rise community housing.

4. At Clause 3.1 of the Audit report, it is noted that "Neither Council's Local Environmental Plans (LEP) treats waste collection as an essential service". Council does not understand how this recommendation affects Council's ability to ensure new developments include well-designed waste storage facilities.

Local Environmental Plans (LEPs) do not provide detailed development controls and guidelines along the lines of that suggested in the recommendation. Rather Development Control Plans (DCPs) provide this level of specificity. The Department of Planning would be the appropriate agency to consider the appropriateness of including this type of provision in an LEP as it is responsible for the Standard Instrument LEP and the EP&A Act which govern the content of LEPs. Similarly, the issue of Private Certification in respect to new multiple unit dwellings having appropriate waste storage facilities (refer Item 3 above) is a matter that the Department of Planning has appropriate jurisdiction to consider.

It is noted that the Fairfield City DCP includes detailed waste management provisions that are applied at the development application stage. These controls ensure that all new buildings provide satisfactory waste storage facilities. Importantly, DCP provisions can be varied by councils, proponents, local planning panels and decisions of the Land & Environment Court. This means that in some instances less than optimal waste arrangements can result.

5. The report's Executive Summary conclusion stated that 'Council has not tested the market to see if its in-house service represents value for money'.

The Audit Office had the opportunity to benchmark Fairfield Council's Service (with the assistance of the Auditor's independent expert consultant) by using the extensive detail provided by Council. This included discrete Council waste management benchmarking and costing details to adequately calculate benchmark rates that would demonstrate that its day labour operations were within a range considered to

be 'efficient'. It is disappointing that the Audit Office appears to favour only market testing as a means of establishing "value for money" or for Council to directly engage their own independent expert consultant.

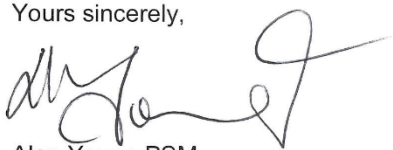
Council has a long history of delivering effective in house day labour domestic waste management collections. Council is confident that its use of day labour provides a flexible use of resources and better agility in meeting the changing needs of its waste services operation. This is endorsed by residents' feedback gained during independent surveys on Council services which rate its domestic waste management services at the highest level of resident satisfaction. It should be noted that 30% of homes in Sydney continue to be well serviced by day labour waste operation.

6. Council commends the Audit Office for noting at Clause 5.4 that Sydney does not have a strategy to meet its waste processing and disposal infrastructure needs. This is a serious and pressing issue. The State EPA has produced various strategies including its "Waste and Resource Recovery Infrastructure Strategy: Draft for consultation, 2017" which pinpoints the Sydney metropolitan area now requires many new waste processing facilities to meet the State's targets for diverting waste from landfill. Yet, these are the same targets that State Government owned waste processing facilities were unable and ultimately unwilling to achieve as they were sold off to a private waste company in 2011.

Given the onerous development approval process for new waste facilities through the State Planning Department and restricted potential new waste facility sites availability in the Sydney basin, it seems unlikely that the large shortfall in waste processing capacity can be overcome. This will mean many Sydney Councils will not have access to red lid bin waste processing capacity for at least a decade or much more and therefore will not be able to meet the State waste diversion from landfill target.

I thank you for the opportunity to provide this formal response to your performance audit and also would like to acknowledge the professional conduct, communication and co-operation demonstrated during the performance audit by Bettina Ocias, Senior Analyst and Rod Longford, Director Performance Audit.

Yours sincerely,



Alan Young PSM
CITY MANAGER

Response from Campbelltown City Council



31 May 2019

Margaret Crawford
Auditor-General
Audit Office NSW
GPO Box 12
SYDNEY NSW 2001

Dear Ms Crawford

Performance Audit of domestic waste management practices in Campbelltown and Fairfield City Councils (Your Ref. 6623)

I refer to your letter of 1 May 2019 inviting Council to provide a formal response to the final Performance Audit report of the same date.

The final report has been reviewed and Council is of the view that a number of the important comments/points of clarification provided to you by Council staff in their response on the draft report, appear not to have been given proper consideration as it is the Council's opinion, that they have not been incorporated or satisfactorily amended in the wording of the final report.

The attached response, provided for your records, is reflective of Council's position and includes many of the comments that were previously provided.

If any further information is required please contact Lauren Williams, Acting Domestic Waste Service Coordinator on 4645 4802 or lauren.williams@campbelltown.nsw.gov.au

Yours sincerely

A handwritten signature in black ink, appearing to read 'L. Deitz'.

Lindy Deitz
General Manager

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RESPONSE TO THE NSW AUDIT OFFICE PERFORMANCE REPORT DATED 1 MAY 2019



Council has reviewed the draft and final versions of the NSW Auditor-General's Performance Audit Report dated 1 May 2019 (the Report), and provides the following comments in response.

EXECUTIVE SUMMARY

The Report recognises that Council conducts activities to encourage residents to minimise and correctly sort waste in line with EPA guidelines, yet in contradiction criticises Council for being 'ineffective' in these areas. This is viewed as somewhat harsh criticism given Council's limited capacity to directly control appropriate sorting of an individual resident's waste. Council is of the view that if such criticism is to be directed at councils, it should be directed equally to all levels of government, given the limited power that each government body possesses in controlling the sorting of waste at a household level.

It is considered that bin inspections do not provide any measurable information about the separation habits of residents. This is because the person inspecting the bin can only observe the top layer of material and for WHS reasons will not rummage through the remaining contents of the bin. Council has previously utilised a bin inspector for garden organics contamination and the inspector and Council were regularly criticised (and threatened) for undertaking these inspections. It is not a practice that is accepted by our community and the program has since been closed.

The Report indicates that Council does not conduct waste audits, despite Council having conducted waste audits in 2005 and 2008. A further waste audit would be useful; however, given the historical resentment by the community to bin inspections, it is considered that such programs are not well received and are largely ineffective. It should also be noted that waste audits cost up to \$100,000 per audit, and are therefore only undertaken when necessary e.g. at change of contract.

Red-lid bin waste is not being processed solely due to Council's contractor closing down the AWT processing facility in breach of contract. The participating councils went to great expense and effort to conduct a regional procurement project in an effort to secure the future of the region's waste and recyclables processing and disposal. The Report recognises an effort made by Council to enforce the terms of the contract, however it is considered that the extent of these efforts are not adequately reflected in the Report. Council maintains that it has made every effort to maximise the diversion and recycling of kerbside waste under this contract.

Generally the language in the conclusions/executive summary is not genuinely representative of the efforts made by Council to meet state waste targets, and is viewed as misleading. Council can effectively demonstrate that its residents appropriately sort waste as 95% of garden organics and 88% of dry recyclables are recycled, whilst only 3% of waste is sent to processing. It is not the fault of the resident nor Council that the contractor is in breach of the contract.

SECTION 1.7

The Report fails to acknowledge methane gas capture that occurs on modern landfill sites, which is generated from the decay of putrescible waste over time, and used to produce electricity.

SECTION 2.3

The Report should make due reference to the following significant issues impacting the performance of the contract:

- the refusal of Council's waste processing contractor to process waste in accordance with its contractual obligations; and
- the EPA's decision to revoke the MWOO exemption, effectively preventing any diversion from the general waste stream processed by AWT.

These two issues provide important context to the information presented in this section, as they each have a significant negative impact on Council's ability to meet State diversion targets.

SECTION 3.1

This section of the Report continues to assert that Council does not monitor the waste sorting behaviour of its residents, and indicates that no targeted education interventions have been delivered. This section is inaccurate in its commentary and should provide greater clarification by making due reference to the effort of Council in inspecting loads of garden organics material tipped for processing, from which data was collected on contamination levels from specific vehicle runs across the Local Government Area. From this data, targeted programs were scheduled to roll out at the time of Council's meetings with AO NSW, and are currently being delivered within the community.

SECTION 3.2

Previous comments have been made about the audits already performed by Council, and the low value provided by bin inspections, notwithstanding the risks involved in searching through residents' bins. Electronic bin tags require community consent because of privacy concerns, irrespective of the valuable information they provide.

SECTION 3.3

There are a variety of potential reasons why recycling bins may be contaminated. Contamination in recycling bins can occur as a result of residents being (rightfully) confused about what is recyclable and what isn't, given the availability of products to choose from, and the way products are labelled. However, it can also be the result of other factors such as reduced garbage disposal capacity (lack of correct disposal options), bin-sharing arrangements, tenanted properties (lack of ownership and responsibility for recycling bins) and lower socio-economic considerations (more pressing issues for residents than the correct use of recycling bins). The report would benefit from a more informed description of contributing factors to provide the reader with better context on this important issue.

SECTION 3.4

The comparison of domestic waste fees that are charged to the community clearly indicates that the fees charged to Campbelltown residents are consistently well below the average for the Sydney Metropolitan Area, however the Report makes no reference to this point, nor does it acknowledge the effort that goes into achieving such an outcome for the community. Council is of the view that a balanced and independent report should make reference to both areas that require improvement, as well as areas where a council is performing well and achieving a positive outcome.

SECTION 3.5

The first paragraph refers to smaller waste bins or reduced collection frequency of waste as encouraging residents to generate less waste. This is an assumption which has never been realised through field testing, and is therefore considered to be misleading. Waste generation is a function of the economy and level of disposable income (refer ABS). Smaller waste bins and/or reduced waste collection frequency is a theory designed to increase separation of recyclables however, many residents have objected to reductions in waste capacity as seen in Penrith City and Bathurst Regional Council's FOGO services, resulting in increased contamination of recycling streams, and in many cases, the return to original waste disposal capacity.

The Report refers to EPA's best practice FOGO service, and acknowledges that such a service is recommended in areas where: contamination is low, there is no access to AWT facilities to process red-lid bin waste, and there is access to FOGO processing facilities and markets. Given this preferred criteria, it is questionable as to whether the common practices of the residents of the Campbelltown Local Government Area would result in the delivery of a successful FOGO program.

Further, Council is unaware of any published data that supports high recovery rates and/or low contamination rates in FOGO streams. It is also understood that the data that is of paramount importance to the success of a FOGO service (i.e. the transfer of food organics from the waste bin to the FOGO bin), has never been reported and that this is because the food organics transfer rates are extremely low (less than 5%). Contamination is not the critical KPI, it is the organics transfer from the red-lid bin to the organics bin that determines the success and effectiveness of FOGO in diverting organic waste from landfill.

The other consideration for Councils of a FOGO alternative is that the EPA has not assessed the physical or chemical characteristics of FOGO outputs and their suitability for use in agriculture or other markets. The AO would be aware that on 26 October 2018, with one day's notice, the EPA revoked the regulatory exemption that allowed mixed waste organic outputs (MWOO) to be used on broad agriculture, mine site rehabilitation and in plantation forestry applications. Council understands that the EPA has not conducted any parallel assessment of FOGO outputs, and yet continues to offer FOGO as a solution. As a result of revoking the regulatory exemption for MWOO, the EPA has introduced a lack of industry confidence and high degree of regulatory uncertainty into the market to the point that many councils are hesitant in considering FOGO.

In relation to preparing for follow on processing/disposal contracts, Council will be guided by industry, not necessarily the EPA, on the most effective and compliant system to reach State Waste Targets.

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SECTION 4.3

The Report suggests that Council should engage a consultant to advise on the economy of waste collection and transportation services. It is considered that the only people with the comprehensive knowledge required to accurately cost a collection service are the collection companies. Consultants, from past experience, can provide cost estimates supported by several assumptions, but cannot provide an accurate costing compared to the detail that a waste collection company can. Hence the prevalence of open tendering compared to consultancy market testing.

Benchmarking must compare like-with-like in order to be effective. The difficulty in comparing council services against each other is the range of variables that exist in one area and not another. These comments have been provided above.

SECTION 4.4

Transfer stations are designed to reduce the distance collection vehicles need to travel to tip loads. However, rather than mitigating additional costs incurred by using smaller trucks as the Report states, transfer stations actually add cost to the service because of additional handling and transport charges to the end destination. Emission increases must also be considered in any transfer station scenario.

SECTION 5.1

The issue that there is no waste infrastructure plan for Sydney (or elsewhere in NSW) is considered to be the most significant headline issue for the waste and resource recovery industry and therefore should be duly referenced in the executive summary.

Please note that China and other Asian countries have not ceased accepting recyclable materials. They have increased their product quality specifications for which the market in Australia has difficulty in reaching, which requires the Government to act quickly with a response strategy in order to bring effective relief to this situation in the short to medium term.

SECTION 5.4

The Senate Inquiry quotes should appear in the executive summary as it is clear that only Government is in a position to make the critical industry-level decisions to improve the functioning of the industry.

The NSW Government's current response to the China Sword policy intervention is considered to be ineffectual. The inter-governmental taskforce unfortunately excluded any participation by councils and as a result it appears there were no representatives on the taskforce with any significant operational or contractual knowledge of the recycling industry, therefore the report was lacking in offering any practical solutions. Accordingly the policies that were the outcome of taskforce deliberations have been largely ineffective in sourcing or creating alternate markets for recyclables.

The EPA's Draft Waste and Resource Recovery Infrastructure Strategy 2017 has never been finalised, which is concerning given the continued population growth of the Sydney Metropolitan Area while

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landfill capacity rapidly diminishes. There is still no plan to address Sydney's waste processing and disposal requirements, making the likelihood of achieving the State's waste diversion target for 2021 low, especially in light of the EPA's MWOO regulatory exemption revocation that has resulted in all AWT processed organics being directed to landfill.

Overall, it is considered that much of the language contained within the Report is unnecessarily negative and directs the blame for many of the issues discussed at councils without sufficiently acknowledging the circumstances under which a council operates. For example, the wording 'councils are ineffective' places blame directly on a council, whereas wording such as 'councils experience difficulty' acknowledges the reality that many factors can adversely impact the ability of a council to meet expected targets. It is considered that the overall language of the Report is lacking in balance, and fails to properly acknowledge the efforts and positive outcomes delivered by councils on behalf of their community.

END.



Appendix two – About the audit

Audit objective

This audit assessed how effectively and economically Campbelltown City Council and Fairfield City Council are managing domestic kerbside waste collection, transportation and processing.

Audit criteria

We addressed the audit objective by assessing the following audit criteria:

1. Councils' activities lead to residents putting recyclable materials into correct recycling bins.
2. Councils have effective and economical arrangements to collect, transport and process domestic kerbside waste to maximise the recycling rates and minimise costs.
3. Councils are increasing the domestic kerbside recycling rate and meeting their targets.

Audit scope and focus

The audit examined domestic waste management and focus on domestic recyclable waste.

Audit exclusions

The audit did not:

- examine the management of:
 - kerbside bulk waste collection (clean ups)
 - illegal dumping
 - littering
 - building and demolition waste
 - problem and hazardous waste
 - liquid waste
- seek to validate data provided by the Councils, but examined their data quality assurance systems
- seek to estimate the contribution each Council made towards meeting the NSW Government targets for diverting waste from landfill and increasing the recycling rate for municipal solid waste
- question merits of government policy objectives.

Audit approach

Our procedures included:

- interviewing:
 - relevant staff in the selected local councils
 - representatives of key stakeholders
- examining:
 - NSW and Australian Government data and documents, including legislation, policies, strategies, plans, guidelines, and reviews
 - Campbelltown and Fairfield Councils' data and documents, including policies, strategies, plans, guidelines, and reviews
 - Campbelltown and Fairfield Councils' service contracts
- researching better practices and other approaches in New South Wales and other jurisdictions where relevant and appropriate.

The audit approach was complemented by quality assurance processes within the Audit Office to ensure compliance with professional standards.

Audit methodology

Our performance audit methodology is designed to satisfy Australian Audit Standard ASAE 3500 Performance Engagements and other professional standards. The standards require the audit team to comply with relevant ethical requirements and plan and perform the audit to obtain reasonable assurance and draw a conclusion on the audit objective. Our processes have also been designed to comply with requirements specified in the *Public Finance and Audit Act 1983* and the *Local Government Act 1993*.

Acknowledgements

We gratefully acknowledge the co-operation and assistance provided by Campbelltown City Council and Fairfield City Council. In particular, we would like to thank our liaison officers and staff who participated in interviews and provided evidence for the audit.

Also, we would like to thank consulted stakeholders for their participation.

Audit cost

Including staff costs, travel and overheads, the estimated cost of the audit is 370,000.



Appendix three – Performance auditing

What are performance audits?

Performance audits determine whether state or local government entities carry out their activities effectively, and do so economically and efficiently and in compliance with all relevant laws.

The activities examined by a performance audit may include a government program, all or part of an audited entity, or more than one entity. They can also consider particular issues which affect the whole public sector and/or the whole local government sector. They cannot question the merits of government policy objectives.

The Auditor-General's mandate to undertake performance audits is set out in section 38B of the *Public Finance and Audit Act 1983* for state government entities, and in section 421D of the *Local Government Act 1993* for local government entities.

Why do we conduct performance audits?

Performance audits provide independent assurance to the NSW Parliament and the public.

Through their recommendations, performance audits seek to improve the value for money the community receives from government services.

Performance audits are selected at the discretion of the Auditor-General who seeks input from parliamentarians, state and local government entities, other interested stakeholders and Audit Office research.

How are performance audits selected?

When selecting and scoping topics, we aim to choose topics that reflect the interests of parliament in holding the government to account. Performance audits are selected at the discretion of the Auditor-General based on our own research, suggestions from the public, and consultation with parliamentarians, agency heads and key government stakeholders. Our three-year performance audit program is published on the website and is reviewed annually to ensure it continues to address significant issues of interest to parliament, aligns with government priorities, and reflects contemporary thinking on public sector management. Our program is sufficiently flexible to allow us to respond readily to any emerging issues.

What happens during the phases of a performance audit?

Performance audits have three key phases: planning, fieldwork and report writing.

During the planning phase, the audit team develops an understanding of the audit topic and responsible entities and defines the objective and scope of the audit.

The planning phase also identifies the audit criteria. These are standards of performance against which the audited entity, program or activities are assessed. Criteria may be based on relevant legislation, internal policies and procedures, industry standards, best practice, government targets, benchmarks or published guidelines.

At the completion of fieldwork, the audit team meets with management representatives to discuss all significant matters arising out of the audit. Following this, a draft performance audit report is prepared.

The audit team then meets with management representatives to check that facts presented in the draft report are accurate and to seek input in developing practical recommendations on areas of improvement.

A final report is then provided to the head of the audited entity who is invited to formally respond to the report. The report presented to the NSW Parliament includes any response from the head of the audited entity. The relevant minister and the Treasurer are also provided with a copy of the final report. In performance audits that involve multiple entities, there may be responses from more than one audited entity or from a nominated coordinating entity.

Who checks to see if recommendations have been implemented?

After the report is presented to the NSW Parliament, it is usual for the entity's audit committee to monitor progress with the implementation of recommendations.

In addition, it is the practice of parliament's Public Accounts Committee to conduct reviews or hold inquiries into matters raised in performance audit reports. The reviews and inquiries are usually held 12 months after the report received by the NSW Parliament. These reports are available on the NSW Parliament website.

Who audits the auditors?

Our performance audits are subject to internal and external quality reviews against relevant Australian and international standards.

The Public Accounts Committee appoints an independent reviewer to report on compliance with auditing practices and standards every four years. The reviewer's report is presented to the NSW Parliament and available on its website.

Periodic peer reviews by other Audit Offices test our activities against relevant standards and better practice.

Each audit is subject to internal review prior to its release.

Who pays for performance audits?

No fee is charged for performance audits. Our performance audit services are funded by the NSW Parliament.

Further information and copies of reports

For further information, including copies of performance audit reports and a list of audits currently in-progress, please see our website www.audit.nsw.gov.au or contact us on 9275 7100.

OUR VISION

Our insights inform and challenge government to improve outcomes for citizens.

OUR PURPOSE

To help parliament hold government accountable for its use of public resources.

OUR VALUES

Purpose – we have an impact, are accountable, and work as a team.

People – we trust and respect others and have a balanced approach to work.

Professionalism – we are recognised for our independence and integrity and the value we deliver.

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