

The biggest opportunity facing Local Government in the next 5 years

# China Waste Ban

## A Local Government Perspective



**Emerging Leader Program Group Assignment 2018**

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The Rural City of

MURRAY  
BRIDGE



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## Executive Summary

This paper explores the biggest opportunity facing local government in South Australia in the next five years - the sector's response to the China Waste Ban (CWB). This assessment was determined by the large percentage of councils' budgets allocated to waste management.

This ban has been viewed as a serious problem for many countries, although it is an opportunity for local governments to lead the way in resetting Australia's recycling system, and in doing so making huge improvements to our current waste and recycling behaviours and overall financial outcomes. The research in this report clearly identifies two key findings:



If we want to see a drastic increase in recycling in South Australia, it is imperative that adjusting community attitudes and behaviours is a major focus.



Local Government must explore alternative approaches to waste management to make positive environmental and sustainable change.

The CWB has already had a major impact on local government in South Australia due to the oversupply of household recyclable materials to the market, and consequently its reduced value. Downes (2018) in the *Conversation* states that this oversupply has caused the average price of mixed paper scrap to fall from approximately \$124 per tonne to \$0 per tonne and scrap mixed plastics falling from approximately \$325 per tonne to \$75 per tonne. The resultant impact for many recycling companies is that the cost of providing a waste collection service cannot be recovered by on-selling the materials. This impact filters onto councils who are now faced with increased fees for collection and processing.

*The China Waste Ban, A Local Government Perspective (2018)*

The issue of waste management cannot only be tackled at the operational end of the spectrum. There must be a permanent and intentional action to change attitudes and behaviours and to adapt lifestyles to match these beliefs. Local governments are ideally positioned to be creative and forward thinking in educating the community in this regard.

The Commonwealth of Australia (2018) has gathered information that demonstrates Australians are good recyclers, and suggests that South Australia leads the way. With effective resources, strategies and education, local governments can champion the improvement of waste management in Australia.



*Image source – City of Tea Tree Gully Latest News Article: ‘Journey to waste reduction’ dated 28 August 2018*

## **Introduction**

This report answers the question, what is the biggest opportunity facing local government in the next five years - its response to the China Waste Ban (CWB) through sustainable waste management. This is currently an extremely topical subject spiking high levels of community interest.

For decades, China has been the world's largest importer of waste (Lee, 2018). However, in July 2017, China announced that effective 1 January 2018 it will place tighter restrictions on twenty-four types of waste being imported from overseas. These import restrictions are being imposed by China under its Blue Sky/National Sword program in an effort to reduce the amount of contaminated materials entering the country (McGurk, 2017). Whilst not technically a ban on the acceptance of waste, the contamination thresholds, particularly for plastics at just 0.5%, are considered too low to be achievable through Australia's current methods of processing household recyclable wastes (Downes, 2018). One short sighted solution may be the export of these materials to alternative receiving countries. This is not an environmentally or socially responsible choice and now a number of South East Asian countries have begun to follow China's lead in implementing tighter restrictions (Lee, 2018).

The Australian Council of recycling suggests the CWB offers a once in a generation opportunity to reset Australia's recycling systems (Lloyd, 2018). Local government can be highly influential in how this issue is tackled.

This report will propose how the CWB could be an opportunity for local government in South Australia to explore opportunities in driving community education and behavioural change and investigate alternative approaches to waste management.

## **Analysis and Discussion**

### **SA Local Government Association Perspective**

During the research and consultation phase of this project, a relevant policy officer from the SA Local Government Association was consulted to understand their perspective of the CWB and the opportunities it presents (personal communication, 30 September 2018). They emphasized that the key opportunity is community education in best practice waste disposal behaviours given the recent media coverage on the topic. Local governments have a unique opportunity to educate and raise community expectations to align with sustainable waste management practices, which will be a huge step towards implementing reforms that incentivise positive change.

### **Local Government Employee Survey Results**

The perspective of local government employees is essential in gaining a better understanding of this topic. Twenty-six local government employees from a range of professional backgrounds were consulted in October 2018 (Appendix A). The majority (92%) said they were aware of the CWB issue and all respondents provided insights into the topic.

When asked what potential opportunities the CWB could create for Local Government, 25% stated community education, awareness and behaviour change is the biggest opportunity. Other respondents (17%) said the encouragement of private sector investment into infrastructure was something worth progressing and 15% said reducing waste and finding new ways of recycling is most important. A summary of all responses regarding the opportunities are shown in the below table:

<b>Survey Response Summary for:</b>	<b>%</b>
<b>Q3. What opportunities do you think the China Waste Ban creates for Local Government?</b>	
Community education/awareness for behaviour change	25%
Encourage private sector investment/ infrastructure	17%
Reduce waste/new ways of recycling	15%
Creating recycling pathways/establish domestic markets	13%
Procurement changes (e.g. purchasing recycled materials)	13%
Repurpose plastics/close loop economy	12%
Advocate (to Government) for legislative change	5%

## **Analysis of the issue**

Waste typically arises from three streams (Commonwealth of Australia, 2018):



Recent estimates commissioned by the Australian Federal Government suggest that from household kerbside recycling, 29% (920,000 tonnes) of all paper and 36% (125,000 tonnes) of all plastics collected were exported to China in 2017. This represents around 65% of the recyclable materials export market. The average contamination rate of this recyclable waste was between 6-10%, more than 10 times the 0.5% limit China has now imposed (Downes, 2018).

Currently Australia has limited local markets for household recyclables like paper, plastics and glass (Downes, 2018). The introduction of the CWB has resulted in an oversupply of these commodities to the global market, which has resulted in their reduced value. For many recycling companies, the costs recovered from kerbside recycling will now be less than the cost of providing the service. The Commonwealth of Australia (2018) has stated that while SA Local Government organisations are continuing to meet their kerbside collection obligations, all of the material recovery facilities that receive and process kerbside recyclables are experiencing considerable cost pressures due to current market conditions and are seeking to renegotiate contractual arrangements with their councils.

Further to the financial implications, the additional volume of paper and plastics that would have previously been exported to China is now beginning to clog waste facilities given the lack of export

or re-manufacturing opportunities. Expanding the capacity of and retrofitting these facilities to repurpose recyclable waste rather than export is likely to be extremely costly.

When reviewing South Australia's Recycling Activity in 2016-17, the state of recycling in South Australia shows promise, with the recycling rate improving by 22% since 2003 - the best recycling rate in the nation (Office of Green Industries SA, 2018, p. 9). Green Industries Australia acknowledges that it is thanks to South Australia's strong kerbside collection systems and recycling processing plants that the standard of recyclable material is typically of a high quality with limited contamination. While this is true, South Australia still processed 5.2 million tonnes of recyclable materials in 2016-17 (Rawtec, 2018, p. 3). The amount of this material exported to China could not be identified.

There are rising arguments to burn the waste for energy or to bury it in landfill, however this has very little environmental benefit in comparison to the seven 'R's' of recycling which has been adopted by some Councils:



*Image source: Golden Plains Shire Council (Victoria)*



## **Opportunities for Local Government**

### **Community Education / Behaviour Change**

Shah (2016) claims that until there is a fundamental shift in public attitudes and behaviours around producing less waste, no other measures to collect, recycle and process waste will be truly effective and sustainable.

As the level of government that is closest to the community, local government is ideally placed for community education, and has already proven their effectiveness with strategic partnerships such as those with Keep South Australia Beautiful (KESAB) and the Natural Resources Management (NRM). Herriman (2011) argues that in contrast to federal and state government, local government works at a community level with their definition of community typically expanding beyond ratepayers, to include anyone who lives, works, conducts business, studies, visits, owns property or participates in the services offered in the local government area.

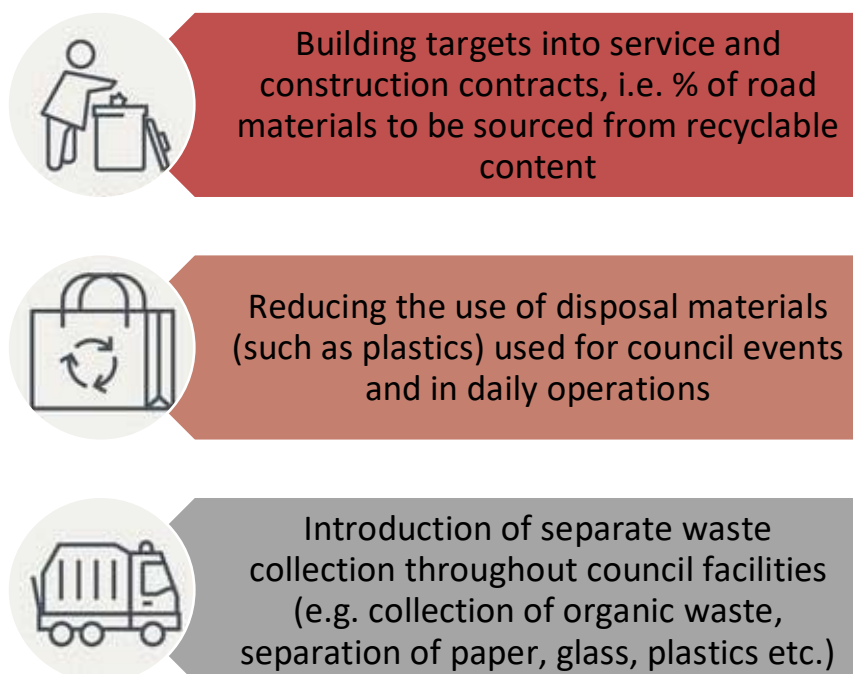
Robinson (2012) asserts that if we really want to change community behaviour around waste and recycling, the old way of developing a slogan and advertising campaign will not cut it. Carl Hughes from the Wales Centre for Behavioural Change suggests that we identify the behaviours we would like to see in the community, and either create rewarding environments for positive change, and/or arrange disincentives for undesirable behaviours (Australasian Waste & Recycling Expo, 2017). Encouraging people to make a commitment appears to be a very effective tool to promote behaviour change. Commitments have been found to be more effective than prompts, information, conversations and incentives, and the effects on targeted behaviours appear to be sustainable. Commitments also seem to lead to attitude change, changes in other related behaviours, and behaviour changes among the peers of those making the original commitment (Bartram, 2009).

It is important to remember that the majority of council employees are not behaviour change specialists and therefore have limited capability to effectively develop and carry out behaviour change programs. In order for councils to be effective in shifting attitudes and behaviour towards recycling, there must first be a focus on building the capability of council officers, Elected Members and community leaders to strengthen existing partnerships and develop new strategic partnerships with organisations best placed to conduct these programs.

Below are some local examples of where behaviour change is making a huge impact on waste and recycling:

- The Last Straw - a campaign to reduce the use of plastic straws in venues around Australia resulting in approximately 20 million plastic straws saved from use (The Last Straw, 2015),
- Semaphore Compost Network - a community driven initiative ensuring the distribution and recycling of food waste generated by local restaurants, cafes and food retailers, along with community and school education of composting, recycling and waste reduction (Semaphore Compost Network, 2016), and
- Allenby Gardens Primary School, Highbury Primary School and Lady Gowrie Child Centre – schools which have hugely reduced their waste, and are avid educators of sustainable waste practices (KESAB Environmental Solutions, 2014).
- Further information about these and other examples are included in Appendix B.

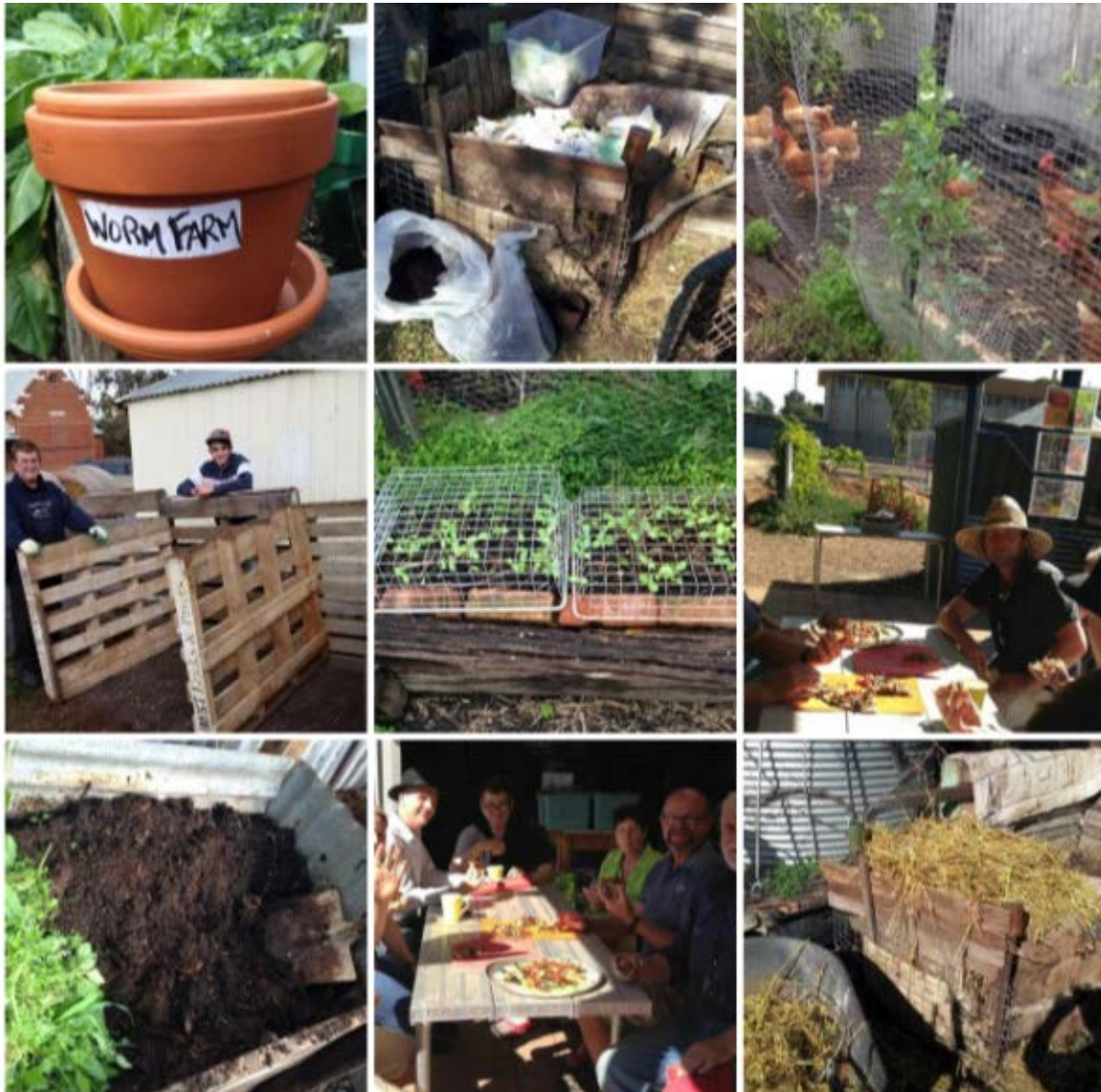
Local government can further promote behaviour change by leading by example. They can incorporate strict targets in council's procurement of products and services, and mandate the use of recyclable materials or practices. This can include:



Councils also can work with local businesses and waste contractors to achieve these improvements and to promote similar behaviour changes to the community.

**Outcomes and results likely to be achieved**

By creating a commitment to educate the community and encourage behavioural change through incentives and/or disincentives, providing essential training, and strengthening existing and creating new strategic partnerships, we will see a reduction in waste contamination rates, greater use of recycling programs, less waste going to landfill, and community involvement in the refuse, reduce, re-use approach to waste management.



*Image source – Semaphore composting network online blog – November 2018*

## **Alternative Approaches to Waste Management**

The Commonwealth of Australia (2018) has identified that all levels of government play differing roles in the management of waste and recycling. The Australian Government provides national leadership and coordination, and ensures its international obligations regarding waste are met. State and territory governments have the primary responsibility for regulating domestic waste management, including conditions for operating a landfill facility and the imposition of landfill levies. Local governments are most directly involved in the management of waste and recycling and have the largest expenditure due to:

- The provision of a range of direct services including waste collection, waste disposal, kerbside recycling, management of landfills, gas capture and co-generation of power;
- The provision of waste management services as part of a cooperative body with other local governments;
- The engagement of waste management contractors to undertake collection and processing services;
- The provision of other programs to reduce the amount of waste going to landfill, such as the collection of green waste to produce compost; and
- Supporting other initiatives, such as product stewardship, the introduction of container deposit schemes, and community education programs

Through the efforts of all tiers of government, South Australia has already achieved a lot in waste management (Office of Green Industries SA, 2015). This includes:

- the closure of the Wingfield Waste Depot and the reduction of Adelaide's total waste stream by three quarters (700,000 tonnes of waste and 700,000 of fill material per annum);
- mandating regional councils to comply with Environment Protection Authority's landfill license conditions, which has forced the closure of some regional landfill sites;
- the development of improved resource recovery and recycling facilities;
- the standardisation of kerbside recycling systems across councils to include the three bin system, resulting in a net benefit of \$22 million; and
- increasing the rate of recovered recyclable materials from 62% in 2003-04 to 77% in 2011-12.

The above achievements have reduced the costs of waste kerbside collection and kept council rates lower than would have otherwise been the case. These are only a few examples but they show how

changes to waste management at different levels of government can have major impacts on reducing waste and increasing recycling.

All three tiers of government can work together to address Australia's domestic waste recycling capacity, and waste minimisation strategies (Sweeney, 2018). Waste minimisation could further be achieved by trialling new approaches to waste management such as the implementation of radio frequency identification (RFID) to facilitate 'Pay As You Throw' kerbside waste collection.

'Pay As You Throw' is a model used by multiple countries around the world where people pay a variable rate for waste collection based on the amount of rubbish they want collected (Wyld, 2010). This provides communities with the monetary incentive to participate in recycling programs and produce less waste. This model can be achieved using RFID - one of many technologies under the Automatic Identification category, used to help machines identify people or objects (Wyld, 2010). Through the use of RFID and specially equipped waste vehicles, bin contents can be weighed and the net amount of 'waste' can be ascertained for each customer (household).

'Pay As You Throw' is a new approach to waste management that South Australian local governments can introduce to reduce kerbside collection costs, improve tracking and monitoring, and create a smarter waste management system. This also encourages more individuals to be environmental responsibility when it comes to the household management of waste. Ideally, for the system to work effectively, all councils would need to separate their waste charges from general rates, a path only some councils have currently pursued.

Germany's management of waste is a great example of how this can work. In Germany, each bin has a barcode which is read at the point of pick up. The cost per consumer is calculated by weight where food waste and recycling have a very low fee and remaining garbage a much higher fee (fines are also imposed for non-compliance). The waste is source separated into residual waste, paper, organic/bio-waste, recyclables/packaging, glass/bottles and batteries, which is then further separated once collected using a refined detector system. Very importantly, Germany applied a consistent scheme across the country with the same bin types for all households and businesses, including consistent signage and colours (Cave, 2017).

### **Outcomes and results likely to be achieved**

Without action, all streams of waste that ratepayers are currently sorting into the three bin system may have to be dumped into landfill. This is unsustainable and not a long-term solution. If RFID

*The China Waste Ban, A Local Government Perspective (2018)*

technology is trialled and the 'Pay As You Throw' method is implemented, it is likely that local governments can make a huge change in the waste behaviours of the community, improve tracking and monitoring and ultimately reduce the cost of waste management for its ratepayers.

It is likely the implementation of RFID technology for waste management would have a significant initial cost for councils. Currently detailed business cases and cost benefit analysis does not exist in the Australian context. Now is the time to act, with the CWB being the catalyst that the industry needs to implement innovative change.



*Image source – City of Tea Tree Gully Latest News Article: 'Fighting the war on waste one plastic bag at a time' dated 23 October 2018*

## **Recommendations**

From this research and analysis, two major opportunities have been identified for local governments as a result of the CWB. These are changing community behaviour, and leading the way in alternative approaches to waste management.

It appears undeniable that the biggest impact local government can have on waste management is changing community behaviours. This is a long-term, but necessary step which, with a carefully planned waste strategy, could be implemented within five years. To change an entire community's behaviour would require assistance and resources. Local government would require federal and state grant funding assistance for educational programs, and support from local businesses, waste contractors, schools and community organisations to drive change and implement alternative approaches to waste management such as an RFID-based 'Pay As You Throw' program.

To initiate the change in community behaviours, local governments need to lead by example through:

- utilising the three bin system at all council sites;
- implementing further source separation and appropriate resource recovery of waste materials, such as glass, paper, batteries etc;
- incorporating strict targets in the procurement of products and services and mandating the use of recyclable materials or practices; and
- reducing the use of disposable products, such as plastics, used for council events and in daily operations.

It is also recommended that local governments strengthen existing, and develop new partnerships to educate the community in waste reduction and recycling. This will require Council's to develop the skills of their staff, Elected Members, and community leaders to influence and effectively engage the community.

The alternative approach to waste management that was identified as having the most potential to tackle the CWB issue was the RFID based 'Pay As You Throw' kerbside collection system, that incentivises ratepayers to reduce their waste output. This technology could reduce the costs of waste management, improve the tracking and monitoring of waste collection, and increase the community's accountability for their waste production, thereby improving reduce, reuse and

*The China Waste Ban, A Local Government Perspective (2018)*

recycling habits. This approach is largely under researched in the Australian context and will require federal and state grant funding assistance to investigate, trial and implement.

It is important to note that this is a complex issue and that no one solution will be a silver bullet. It is also likely that any given solution may not be equally beneficial for all councils. Ultimately, a raft of initiatives will be required over a longer time frame to implement sustainable long-term change in waste management.

Below is an implementation plan detailing the above recommendations.



## Implementation Plan

What	How	When	Monitoring/Measuring	Dependencies
Source separation of the waste materials within council facilities. (Initially utilising the three bin system, followed by further refinement of collected recoverable material, such as glass, paper and batteries).	Internal project led by waste team	Immediate (already occurring in some councils)	Waste audits	Ability to adapt existing waste management strategies & collection contracts.
Incorporate strict targets in council's procurement of products and services including mandating the use of recyclable materials and sustainable practices.	Internal project led by procurement and waste teams	Within 6 to 12 months	Inclusion of contract clauses requiring contractor reporting against predefined targets.	Ability to incorporate targets & related clauses into existing contracts.
Reduce the use of disposable materials (such as plastics) used for council events and daily operations.	Mandate use of compostable materials	Within 6 to 12 months	Internal audits	N/A

<b>What</b>	<b>How</b>	<b>When</b>	<b>Monitoring/Measuring</b>	<b>Dependencies</b>
Train relevant staff, Elected Members and nominated community leaders in behaviour change.	External training providers potentially with funding grant assistance.	Within 12 to 18 months	Schedule of trained personnel	Available funding
Educate community	Strengthen or create partnerships with local businesses, schools and community groups to deliver education modules in the 7 R's of recycling.	Within 2 years	Report	Available funding
Develop a state-wide waste strategy for the local government sector	<ul style="list-style-type: none"> <li>• Seek endorsement and support from Elected Members and the Community.</li> <li>• Establish Memorandum of Agreement between LGA and councils.</li> <li>• Establish working group produce strategy document and actions (including community education and behavioural change).</li> </ul>	Within 2 years	Completion of strategy document	Industry cooperation
Strengthen and develop new partnerships with key organisations to champion behavioural change in the 7 R's of recycling.	<ul style="list-style-type: none"> <li>• Waste collection &amp; processing organisations (E.g. Jeffries, VISY), KESAB, Green Industries, etc.</li> </ul>	Within 2 years	Memorandum of understanding	N/A

<b>What</b>	<b>How</b>	<b>When</b>	<b>Monitoring/Measuring</b>	<b>Dependencies</b>
Establish consistent branding and colour identifications for three bin system across SA councils.	Led by the LGA	Within 3 to 4 years	KPI's	N/A
Undertake research and cost/ benefit analysis for the introduction of RFID technology to enable the 'pay as you throw' system of waste collection.	Led by the LGA	Within 2-3 years	Completion of business case	Available funding
Trial the 'pay as you throw' system of waste collection in a selected area.	Partner with waste collection and processing providers to implement & monitor system	Within 4 years	Trial analysis report	Availability of funding & feasibility in business case
Separate the waste fee component from council rates	<ul style="list-style-type: none"> <li>Amend <i>Local Government Act 1993</i> legislation and regulations.</li> <li>Include in Council finance &amp; rates processes.</li> </ul>	Within 5 years	N/A	Cooperation of State Government
Implement 'pay as you throw' system of waste collection	<ul style="list-style-type: none"> <li>Develop financial systems to correctly administer.</li> <li>Procurement.</li> <li>Educate community.</li> </ul>	Within 5 years	Ongoing system reviews	Success of trial and ability
Ongoing management of 'pay as you throw' system of waste collection	<ul style="list-style-type: none"> <li>Contract/ project management</li> <li>Fines for non-compliance</li> </ul>	Within 5 years	Report	Success of trial

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## **Appendix A - Local Government Employee Survey Results - China Waste Ban**

### **Survey Introduction:**

In July 2017 China announced that effective 1 January 2018 it will ban 24 types of waste being shipped (imported) from other countries. This includes plastics waste, unsorted waste paper and waste textile materials.

We are working on an assignment that will propose how the China Waste Ban could be an opportunity for local government in South Australia.

Your responses will help us better understand what opportunities there could be and form options to propose.

### **Survey Responses:**

Q1. Which best describes you?

Response	Percentage
LG Employee (environment, waste, recycling, sustainability role)	42%
LG Employee (non-environment, waste, recycling, sustainability role)	42%
LG Employee (Manager, Director, General Manager or CEO)	15%

Q2. Before receiving this survey, were you aware of the China Waste Ban issue?

Response	Percentage
Yes	92%
No	8%

Q3. What opportunities do you think the China Waste Ban creates for Local Government?

High Level Response Summary	Percentage
Community education/awareness for behaviour change	25%
Encourage private sector investment/ infrastructure	17%
Reduce waste/new ways of recycling	15%

Creating recycling pathways/establish domestic markets	13%
Procurement changes (e.g. purchasing recycled materials)	13%
Repurpose plastics/close loop economy	12%
Advocate for legislative change	5%

Verbatim comments:

- Encourage private sector investment in local industry.
- Create / support new businesses to help deal with the waste.
- Local job creation (local recycling, manufacturing and reuse creating a new/improved industry
- Supporting the expansion recycling infrastructure.
- Generation of jobs in the Australian recycling sector.
- To explore recycling options closer to home
- Foster and support innovation in the waste/recycling sector.
- Start thinking of recycling items in Australia
- Councils could consider creating recycling pathways themselves but this is a longer road.
- Establish domestic markets.
- Ability to consider opportunity for secondary processing
- To explore options e.g potential to own/operate more of our own material recycling facilities as per NAWMA model.
- Increase in funding for local government with respect to waste infrastructure.
- To take the lead in creating waste and recycling strategies which deliver sustainable outcomes.
- Reduce waste at source.
- New ways of recycling waste
- Better manage our recycling
- Improve environmental performance of Councils
- Proactively ensure every area of LG is required to improve sustainability in their business as usual as well as new projects
- Better recycling and repurposing
- Reduction of greenhouse gas emissions by preventing recyclables being shipped overseas.
- Dictate where products end up
- Heaps of opportunities however you need funding to get those opportunities over the line.
- Price reset - option to be price dictator, not taker



- Increase procurement
- Stimulate a circular economy approach to Local Government procurement that supports local on-shore recycling and reprocessing opportunities. This will help to create local jobs and keep resources within Australia.
- Changes to Procurement Policies to procure and mandate use of recycled products. Reset cost of services to better understand cost drivers.
- Support circular economy within Australia through the development of local business opportunities, research & development, employment, use of material for recycling and purchasing of products containing recycled content
- To ensure procurement practices focus on the purchase of recycled materials and materials with recycled content, as well as products with minimal packaging.
- Increase in funding for local government with respect to community education awareness
- It has raised the profile of waste and recycling issues and has generated a community focus on improving Local Governments performance in this area.
- Increase community engagement - Revamp education
- Educate community members on the right way to recycle.
- Use the initiatives of other organisations/countries to start the conversation on changes to their own practices with regards to waste creation
- Opportunity to assess how much and what types of recycled material are collected, ways to minimise this and options for sustainably dealing with it in an environmentally friendly manner.
- Community education- we can no longer ignore the plastic waste that we are creating.
- Work harder to reduce waste, encourage communities to reduce waste.
- Raise the importance of sustainability
- Get better community buy-in around waste and recycling issues.
- Sustained community behaviour change (recognition that contamination is an issue and that in the long run it is the resident that will ultimately be paying the extra costs)
- More funding towards waste education, increase in awareness on the effect of incorrect recycling, opportunities to implement improvements to prevent or reduce contamination (i.e. contamination polices)
- Promoting a local circular economy, will have flow on effects of making Australia more self-sufficient and less reliant upon imports and exports
- Closed loop economy
- Promotion of a circular economy.
- Possibility to innovate in repurposing of plastic recyclables on a commercial scale.

*The China Waste Ban, A Local Government Perspective (2018)*

- Investigate greater use of recycled plastics in public infrastructure (where appropriate).
- Places pressure on State and Federal governments to legislate sustainable packaging requirements.
- Advocate to other levels of government on behalf of local business/manufacturers.
- Provide better incentives for well managed household and business waste (eg. user-pays schemes which reduce in price with the more sorting of waste you do).

Q4. Are you aware of any State or Federal funding opportunities available to help Local Government respond to the China Waste Ban?

Response	Percentage
Yes	38%
No	62%

Details and comments:

- SA State Government Green Industries (GISA)
  - Infrastructure Investment Loan Scheme,
  - Recycling Market Development Grants & Business Sustainability Program
- Primarily funding available for manufacturing using recycled materials
- Each state is different. News articles, WMAA and other industry reports are best way to find this info. From a local point of view the majority of funding made available by GISA(Green Industries South Australia) relates to new/improved infrastructure. There was also some minor assistance to regional councils for transportation costs. The grants within South Australia will eventually have a flow on effect to local government once the new infrastructure is in place however in the short term it is the council and ultimately the ratepayers who will bear the brunt of the financial implications whilst markets adapt, change and ultimately settle at a new average.
- Green Industries is offering a range of grants that will support better sorting of recyclable materials and reprocess/manufacture products within SA.
- Recycle Right funding to help support community education that will reduce contamination in the 3 bin system.
- GISA loan / grant scheme. However this support is limited to Councils who are either processing/handling recycling themselves, or Regional Councils who have longer haul transport needs. In this same package, the recycling industry is offered support.

Q5. What is the main action that Councils should be focussing on right now in response to the China Waste Ban?

High Level Response Summary	Percentage
Community (and Council) education/awareness for behaviour change	52%
Procurement changes/recyclable materials/business support	40%
Other	8%

Verbatim comments:

- Becoming more efficient with our recycling and creating our own markets for recyclable materials. Working with the Federal Government to create incentives for reducing waste and increasing recycling initiatives.
- Immediate impact on rates and expenditure. Contractual and legal issues and how to show a consistent response to the issue. Using the issue to drive further community education.
- Promoting the reduction of waste and benefits of recycling, exploring options for investment into programs, services and infrastructure to support the desired outcomes.
- Foster and support innovation in the waste/recycling sector.
- Ensuring we know what is happening to the waste that we make ourselves and also our residents waste.
- Improve kerbside recycling and reducing contamination in the recycling and organics bins. - Looking at our procurement policies to ensure that they priorities recycled Australian content where feasible (e.g. glass in road base, park furniture, bollards made from recycled plastics). - Looking at ways to divert more material from landfill particular food waste into the organics bin.
- Looking at improving how residents and businesses manage their waste and have better resources and information available
- How we can support companies that recycle
- Educating residents to be more aware of what can be recycled, reducing waste where possible and finding an environmentally sustainable process to deal with the waste.
- Behaviour changes at home and business and how to deal with local waste such as closing loop and including legislation around packaging to help increase the market for plastic
- Firstly councils need to limit the financial exposure of ratepayers to the issue of China no longer accepting the world's recyclables. This means finding an alternate solution to simply adding these recyclables to landfill. (Once upon a time these recyclables could be shipped off to China for some financial return) whereas now councils will be forced to find somewhere

to store these items and/or pay higher amounts for these to be recycled elsewhere- or worse, added to land fill, at considerable expense. My understanding is that currently the Council I work for is not hugely financially affected due to the wording of a contract which requires the waste contractor to absorb these costs, however this may not be acceptable to the contractor once the current contract expires- and is not the case for other council's arrangements. Following that, the action to be undertaken would be the first step in the waste chain, which is "reduce"! Starting with council events and day to day operations of councils; actions should be taken to reduce the amount of plastic being consumed (and write this into council's policies). Once councils are taking proactive steps to alter their behaviour around plastic consumption themselves, they can provide education and incentives to their communities to follow suit. Concurrently, the Local Government Research and Development Scheme should undertake a project which is designed to identify ways in which plastic/recyclables can be repurposed or recycled for use as public infrastructure- and if it is feasible to do so to reduce the costs of public infrastructure. (e.g. recycled plastic that could be 'woven' to form shade sails over play equipment, or recycled plastic used in structures of public seating or light poles. etc Similarly local government, as a sector, could contribute to a feasibility study of whether there is anywhere in Australia/SA that might benefit from establishing a recycling facility which undertakes the process that used to be undertaken in China....

- Understanding waste, human behaviour in relation to waste, and working collaboratively to implement solutions. Taking a few risks also wouldn't hurt.
- To review all their practices to genuinely initiate changes that include every possibility to improve sustainability. Every initiative should be required to complete a checklist that all possible options have been explored and if they are not the recommended option, then justify why not and the environmental impact of the recommendation.
- educate residents and stakeholders on what this means and how they can assist
- Council's key priority at the moment is to maintain stability in the industry and faith in the kerbside bin system. Secondary is a focus on dealing with contamination. Failure to continue to promote recycling will exacerbate the problem and make it very hard to restore faith in the industry and the kerbside collection model.
- Negotiating the best lowest risk contracts for the short term. Find the least worst option.
- Increasing awareness on correct recycling and implementation of contamination policies between council and contractors

- Supporting local business development opportunities and applications addressing contamination in collection systems through education and non-compliance system (e.g. not emptying contaminated bins, etc.)
- Community education about waste avoidance and minimisation, and better recycling practices including food recycling which will possibly be overlooked in this plastics issue. Also ensuring that medium and high density developments have suitable access to source separation re waste created at the site.
- For Councils it is hard as I would say just less contamination. However for Governments this is an opportunity to boost our Waste Sector and create more jobs within South Australia. Why do we send it away? When we can deal with our own stuff here?
- procuring more recycled products
- Consider what options our current and future Recycling Contracts enable - ie rise and fall clauses that enable the consideration of commodity market rates. 2. Reassure our community that it is critical to continue to sort the recycling in the yellow bin - it is still being recycled as it always has. 3. Prioritise the procurement of goods that are from remanufactured recycled materials, ie glass fines as road base, rubber crumb within bitumen, recycled plastic park furniture.
- Important you understand how recycling is managed through subsidiaries and contracts. This dictates where and how Councils can best influence. Sustainable procurement is the best option for Councils. To create sustainable markets end markets need to be developed and Council is well placed. CEOs will be developing a paper on this topic shortly which may add value.
- Short term:
  - (1) Test market to switch to a domestic recycling outcome as opposed to an overseas recycling outcome;
  - (2) reduce food waste from "'waste to landfill' representing 30% which will assist to cover off on financial short-falls where \$ rebates enjoyed within some councils have now been replaced by disposal fees
  - (3) Still encourage residents to keep recycling both recyclates and green organics;
  - (4) Councils to lobby State government to reduce impost of waste levy given the crisis;
  - (5) Councils to seek national action by the Federal Government to support the circular economy transition, by
    - supporting the local management of waste as close as possible to its generation, by urgently acting to harmonise state regulation to create a

level playing field for industry and address the unnecessary movement of waste between states for the sole purpose of avoiding landfill levies;

- Implementing the National Waste Policy: Less waste, more resources, key strategies, prioritising the sustainable procurement of recycled content in all levels government supply chain and government procurement; and
  - Requiring producers of new products (including packaging) to have met recyclability and recoverability requirements that have a clear commercial pathway for movement of materials back into the economy.
- Investigating alternative options for this type of recycling

## **Appendix B - Local Government Behaviour Change Examples**

### **City of Tea Tree Gully**

#### **Waterworld winning the waste war**

Waterworld will prevent more than 15,000 hot chip buckets, 6,000 coffee cups and 5,000 nugget containers going to landfill this season, with the introduction of compostable packaging at its café.

This equates to a reduction of 836 kilograms of CO<sup>2</sup> and 440 kilograms of waste<sup>1</sup>.



All hot food purchased from the Waterworld café will be provided to customers in compostable packaging from local supplier Eco Office – everything from chip buckets and sauce containers through to coffee cups and straws.

“We’ve spent significant time during the off-season working on our waste strategy to meet the needs of our community. We’re looking forward to seeing how patrons respond to this positive change,” said centre manager Nigel Dennis.

More green organics bins have been installed so swimmers can easily dispose of their compostable food packaging in the right way.

Messaging from our waste monsters Chomp, Tasty and Crunch are now seen on landfill, recycling and green bins to help adults and children alike select the correct bin for their rubbish.

City of Tea Tree Gully, (2018), *Waterworld winning the waste war*, City of Tea Tree Gully, viewed 27 November 2018, [https://www.teatreegully.sa.gov.au/Council\\_business\\_news\\_and\\_information/News/Latest\\_news/Waterworld\\_winning\\_the\\_waste\\_war](https://www.teatreegully.sa.gov.au/Council_business_news_and_information/News/Latest_news/Waterworld_winning_the_waste_war)

## **City of Tea Tree Gully**

### **Fighting the war on waste one plastic bag a time**

Redwood Park resident Skye Brock is on a serious mission to reduce the amount of waste her young family of five throws away.

Skye is constantly looking for ways to achieve this and isn't averse to gently educating others on the finer points of waste reduction, whether it be by sharing posts on social media or a gentle word in a relative or friend's ear.

"This is serious," said Skye. "This is a bigger community message. Some people just don't realise how dire the situation is."



"The *War on Waste* had a big impact on me. You think you're doing all right, but there's the wider impact of all the waste."

On the day we visited Skye's home, she had just one bag of rubbish in her red-lidded rubbish bin – a pretty impressive achievement, considering she was renovating her house and decluttering.

Skye takes her own shopping bags with her to the supermarket and packs fruit and vegetables into boxes rather than using supermarket-issued plastic bags.

She's disappointed that supermarkets aren't doing more to reduce plastic packaging and avoids using supermarket home delivery services because of the amount of plastic they use – even when she's paid extra for a crate to bench service.

"If they stopped using so much packaging, consumers wouldn't be in a position to dump so much," she said.

Any unavoidable plastic bags or packaging that comes into Skye's home are taken to supermarket collection sites for recycling.

Skye is also mindful of overconsuming, saying "today's cheaper throw away products are having big impact on landfill as people are buying quantity instead of quality when it comes to clothes and home furnishings."

### **Some quick and easy waste reduction tips from Skye**

- Make sure food scraps go into your green organics bin, along with tissues, kitchen paper and pizza boxes. The paper and cardboard products not only break down into compost, they also absorb odour.
- Rinse bottles and jars before putting them in the yellow-lidded recycling bin.
- Small plastic lids, such as milk and soft drink ones, and bread tags can't go directly into the recycling bin. Push the items through the neck of a plastic bottle and drop into your recycling bin when full. Otherwise these small lids must go in your red-lidded rubbish bin.



*The China Waste Ban, A Local Government Perspective (2018)*

- Keep reusable shopping bags in your car in readiness for shopping. Take a cardboard box instead of using supermarket bags for loose fruit and vegetables – or sew reusable bags from old terylene curtains available at opp shops.
- Take a reusable cup to cafes rather than using non-recyclable takeaway cups.
- Pack school lunch items into separate containers to avoid using plastic bags, and buy reusable yoghurt pouches for children rather than buying pre-prepared ones.

City of Tea Tree Gully, (2018), *Fighting the war on waste one plastic bag a time*, City of Tea Tree Gully, viewed 27 November 2018,

[https://www.teatreegully.sa.gov.au/Council\\_business\\_news\\_and\\_information/News/Latest\\_news/Fighting\\_the\\_war\\_on\\_waste\\_one\\_plastic\\_bag\\_a\\_time](https://www.teatreegully.sa.gov.au/Council_business_news_and_information/News/Latest_news/Fighting_the_war_on_waste_one_plastic_bag_a_time)

## **City of Tea Tree Gully**

### **Journey to waste reduction**

With two small children, a partner and two dogs, Alison Onody's family was creating its fair share of waste. Here's how this Modbury North family more than halved the amount of waste it creates.

Three years ago Alison's family set an audacious goal for waste reduction.

"We decided as a family to reduce our red bin waste by 75%," said Alison.



And when they reached their target, they set a new goal of zero waste, which is still a work in progress.

Alison, a university student, says education was a key to her family's waste-reduction drive. She set about learning what they could recycle and reuse, and what exactly they could put in their green organics bin.

"It was so easy. Just by sorting waste correctly, our rubbish levels started to go down," said Alison.

With a long-term interest in environmental sustainability and permaculture, Alison and her partner Jo Robbertsen were also prepared to go the extra mile to reduce waste.

They used cloth nappies for their children, bake their own bread and use homemade cleaning products, although they still buy dishwashing and clothes detergent.

They even have a dog poo composter – dog poo can also go in your green organics bin.

Eventually, they would like to keep chickens in their backyard.

### **Some quick-and-easy waste reduction tips from Alison**

- Put food waste into your green organics bin
- Avoid buying soft plastics. Drop any you do have at Woolworths or Coles recycling collection sites
- Pack nude lunches (no plastic wrap)
- Buy in bulk to avoid plastic wrapping
- Store food in resealable glass containers or use silicone wraps
- Use biodegradable kitty litter so it can be composted

City of Tea Tree Gully, (2018), *Journey to waste reduction*, City of Tea Tree Gully, viewed 27 November 2018,

[https://www.teatreegully.sa.gov.au/Council\\_business\\_news\\_and\\_information/News/Latest\\_news/Journey\\_to\\_waste\\_reduction](https://www.teatreegully.sa.gov.au/Council_business_news_and_information/News/Latest_news/Journey_to_waste_reduction)

## **Alexandrina Council**

### **Fortnightly Kerbside Collection**

Alexandrina Council endorsed the fortnightly collection of domestic general waste, recyclables and green organics for implementation on 1 July 2016. This initiative was the winner of the *2017 LG Professionals Excellence in Environmental Leadership and Sustainability* award.

The decision was based on investigation and research undertaken by Fleurieu Regional Waste Authority (FRWA) between 2012 and 2014. This research included public consultation, several region-wide bin audits and a pilot program between October 2013 and February 2014 in Hayborough.

The new Kerbside Waste Collection Policy also includes initiatives aimed to meet the needs of large households (5 or more persons), families with residents in nappies and residents with special medical needs. Residents meeting one or more of these criteria may apply to Council for an additional waste bin to be collected fortnightly at no charge.

#### Frequently Asked Questions in relation to the fortnightly kerbside collection

##### **1) When will this change come into effect?**

July 1 2016

##### **2) We pay such high rates, how can Council justify reducing this service?**

The changes to the kerbside waste collection will actually result in an increase in service. Residents will be offered twice the recycling and organics capacity.

##### **3) The collection schedule will change; how will I know when to put out my bin(s)?**

The new collection schedule was included in the 2016-2017 and subsequent waste calendars which are mailed out in June each year via Australia Post unaddressed mail, in time for the first collections in July.

The collection pattern is as follows: the general waste and green organics bins are collected on one week and the recycling bin is collected the next week.

##### **4) Is Council doing this to save money?**

No, Council is doing this to reduce the amount of waste that goes to landfill and to increase the rate of recycling and resource recovery. The cost of increasing the frequency of recycling and green organic collections to fortnightly and reducing waste collection to fortnightly is slightly less than making no change to the current system. There will be additional costs incurred from the initial implementation and education relevant to the program which will reduce and be eliminated over time.

Alexandrina Council, (no date), *Fortnightly Kerbside Collection*, Alexandrina Council, viewed 27 November 2018, <http://alexandrina.sa.gov.au/page.aspx?u=2444>

## **City of Mitcham**

### **WHY WASTE IT? WE ARE STILL RECYCLING IT!**

You may have seen a range of articles concerning the China Sword Waste Policy and the impact it is having on the global recycling market in the media recently. Many of our residents are still wondering whether it is still worth recycling. The answer is YES!

It is important to know that recycling is still environmentally beneficial and the City of Mitcham is committed to investigating short, medium and long term solutions by working closely with East Waste, the waste industry and State/Federal governments towards ensuring more sustainable, financial viable long term outcomes.

Recycling is important and is a vital part of our continued existence on a planet with an increasing population and finite resources. Recycling also ensure that recyclates are at their highest and best use for as long as possible and this is essential to ensure Australia's long-term sustainability and reduces reliance on the use of raw materials.

You play a very important role by placing the right materials in the right bin and keeping items that can't be recycled out. Please continue to recycle through your yellow-lidded recycling bin:

- Paper and cardboard
- Aluminium
- Plastic (rigid)
- Steel/tin
- Glass

You will be playing your part to improve the quality of recycled materials. It is also very important that we refocus our efforts in avoiding, reducing, and re-using waste in the first place, to lessen our reliance on recycling.

Please do not place in your recycling bin:

- Plastic bags/recycling in bags
- Electronic waste
- Food
- Nappies
- Liquids
- Garden (organic) material
- Clothing/ fabric
- General waste
- Polystyrene/foam
- Bricks and building materials
- Shredded paper
- Wire, strapping and hoses

If recycling materials are too contaminated it may be too difficult to sort and end up being wasted in landfill. The cost for doing so is ultimately passed onto our residents through rates.

We will continue to work closely with East Waste, Industry and Government to ensure that recycling continues as an essential service, and assist in working toward new models that provide more sustainable long-term outcomes.

## **WASTE AND RECYCLING STRATEGY**

We can no longer rely on sending all our waste to landfill, especially when there are a lot of valuable materials that can be reused and recycled. As individuals and as a community we need to be more responsible of our consumption of materials and how we dispose of them. After all, waste generation and disposal has significant environmental, economic and social impacts.

In response, the City of Mitcham has developed a Waste Management Strategy to demonstrate its commitment to reducing waste to landfill, increasing resource recovery and increasing community knowledge of responsible waste management.

City of Mitcham, (2018), *Why Waste It? We Are Still Recycling It!*, City of Mitcham, viewed 27 November 2018, <http://www.mitchamcouncil.sa.gov.au/waste&recycling>

**The City of Port Adelaide Enfield**

**Community Education Website**



<b>COMMUNITY</b>
About your waste collection system
Why compost?
What goes in my green organics bin?
Fast facts

## Community

[Home](#) > Community

Welcome to the Community section of the Port Adelaide Enfield Council's 'Food scraps to compost' website.

This website helps to educate schools and the wider community about the effective use of the green organics bin to divert food scraps from landfill. We encourage residents to compost their food scraps at home, or place them into the green organics bin. This is made easier through the use of your kitchen caddy.

To find out more about composting, waste collection and using your green organics bin more effectively, choose from the left hand menu.

### How to use your kitchen caddy

1. Always line your kitchen caddy with the provided compostable bags supplied by Council. Regular plastic bags, even the ones labelled 'biodegradable', will not break down in compost.
2. Place all your food scraps into the lined kitchen caddy. Remember:
  - Allow hot food to cool first.
  - Freeze any meat and seafood you want to dispose of until your bin collection day (to avoid odours).
3. Remove the bag and contents from your kitchen caddy every 2-3 days.
4. Place the bag into your green organics bin and place out for normal collection, even if it is not full.

**Note:** If you are running low on compostable bags contact the Waste Line on 1800 777 844.



**City of Unley**

Repair Café



The Unley Repair Cafe first opened in April 2018 and is held monthly at the Clarence Park Community Centre and is free to attend.

The Repair café recruits expert repairers to help community members learn how to fix their broken household items which could be anything from shoes to sunglasses, teapots or toasters reducing items from heading to landfill. The other benefits are the sharing of knowledge and skills, saving money and building community.

The Repair Café is a great example of Council supporting a community driven initiative which is supported by Sustainable Communities SA Inc. and financially supported through a Fund My Neighbourhood grant.

<https://www.facebook.com/unleyrepaircafe/>



**KESAB (Multiple Council Partnership)**

Beyond the kerb waste and recycling tours



KESAB facilitates tours of waste and recycling sites for the community which are subsidised by their respective Councils. The tours provide an opportunity for residents to find out where their recyclables, organics, and waste materials go after collection from the kerb.

<http://www.kesab.asn.au/community/waste-recycling-tours/>



## FREE COMMUNITY TOUR

### 'BEYOND THE KERB' WASTE & RECYCLING TOUR

Monday 24 September 2018  
9:30am - 3:30pm



The City of Charles Sturt invites residents to join KESAB for a tour of recycling and waste facilities to follow the journey of your kerbside bins as well as electronic and construction and demolition material recycling.

Bookings Essential - Seats are limited!  
contact KESAB on 8234 7255





**City of Charles Sturt**

Composting and worm farming education



## COMPOSTING & WORM FARM WORKSHOP

Come to the Semaphore Park Community Garden and hear from local composting gurus Alan Shepherd (KESAB) and the Tim Walsh (Semaphore Composting Network).

This workshop will provide a practical understanding of composting and worm farm systems, how to maintain a healthy system, and the importance of diverting food from landfill.

The session will be followed by a complimentary morning tea in the garden.

**Sunday 2 December 2018, 10am**  
**Semaphore Park Community Garden**  
**Free**

Trust Reserve, (accessed from the end of Eagle Court), Semaphore Park, SA 5019  
Please note the Community Garden is located off the main walking path up a small hill. Please speak with Bec 8408 1394 to discuss accessibility needs.

**All welcome. Bookings appreciated to assist with catering:**

Please book your spot by contacting Bec Lyons on 8408 1394 or [blyons@charlessturt.sa.gov.au](mailto:blyons@charlessturt.sa.gov.au) or via the following link: <https://www.trybooking.com/ZKYI>



**City of Charles Sturt**

Plastic Bag Weaving Workshop



**DAISY CHAINS**  
PLASTIC BAG FLOWER WEAVING WORKSHOPS & COMMUNITY ART PROJECT

Join the 'Textile Warrior' at Bower Cottages Community Centre and learn how to use handmade looms to weave flowers from plastic bags!

These flowers will be woven together to create a beautiful floral public art piece to brighten up the garden gate at Bower Cottages Community Centre. Plastic bag weaving is a great social activity for people of all ages and skill levels.

Sessions will run every Wednesday for 5 weeks.

The beautiful 'fence craft' will be launched at Bower Cottages Community Centre at the 'Belonging' Open Day on Saturday 29 April 2017.

**Starts Wednesday 29 March**  
**10am - 1pm**  
**Gold Coin Donation per session**

Limited spaces available; bookings essential.  
To register and for more details please call 8408 1395.



## **SA Government (in partnership with multiple Councils)**

### Living Smart Course



### Living Smart Course Hosts

The Adelaide and Mount Lofty Ranges (AMLR) Natural Resources Management Board have trained a local group of facilitators to deliver award winning Living Smart courses in the region. Facilitators were chosen because of their local knowledge, networks and facilitation skills. They were trained by Shani Graham from ecoburbia and Be Living Smart Inc., Western Australia.

This community course was chosen because of its:

- **Focus on behaviour change**  
Information fatigue is a real barrier to change. To overcome this Living Smart uses individual goal-setting and sharing of actions within every session to motivate and connect participants.
- **Ability to be tailor-made**  
The proven model stays the same but the content and schedule can vary to be locally relevant and driven by the priorities and needs of both the participants and hosts.
- **Broad coverage of sustainability**  
The 10 Living Smart topics include: Living Simply, Waste, Power, Water, Gardening for food and biodiversity, Transport, Healthy home, Healthy you and Community (including one field trip).
- **Priority to link with local networks**  
Living Smart facilitators are well networked and will be supported by AMLR Natural Resources and partner organisations to bring to light what is already happening in their local area and encourage community participation.
- **Commitment to evaluation**  
Living Smart captures both quantitative and qualitative data around each course. Unlike a one-off event or workshop, this course offers ways to track behaviour change and community participation.

The AMLR Natural Resources Management Board will offer co-funded arrangements with partner Councils or other organisations. This funding covers the facilitator fee, with an estimated 100 hours of preparation and facilitation. *This can be negotiated.*

Each local course costs participants \$80 for general admission and \$40 for concession. Each course needs a minimum of 15 participants, with ideal group numbers between 20-25 participants. *Some host organisations have chosen to subsidise these costs.*

The Urban Sustainability team provide regular support and information to facilitators and host organisations.

Contact Ruby Wake on 0437 613 490 | [ruby.wake@sa.gov.au](mailto:ruby.wake@sa.gov.au)



Government of  
South Australia



Natural Resources  
Adelaide and Mt Lofty Ranges