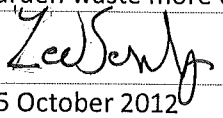
Request for Costing an Election Commitment

Name of election commitment:	***Giving Households a Third Garden Bin***
Person and party requesting costing:	Zed Seselja MLA, Leader of the Opposition
Date of public release of election commitment, including source:	27 August 2012, Media Release 'Libs announce Green Bins for Canberrans'
Summary of election commitment:	Give households a third bin for garden waste
Intention of election commitment:	Give households a third bin for garden waste that will have a kerbside collection, making disposal of garden waste more convenient
Signature of person requesting costing:	
Date of request for costing:	15 October 2012

What are the key assumptions that have been made in the election commitment?

- This collection is for garden waste only and does not include organics or kitchen wast
- The $10 million in capital will be to build a new processing facility or to upgrade and increase the capacity of an existing processing facility – the facility will be owned by the Government but on a long-term lease to the private sector for operation and management
- The collection will be available to those who currently receive the kerbside 240 litre recycle bin collection and will begin in 2014-15 to enable a service contract to be established
- Households will be given a 240 litre bin that will be collected fortnightly
- The cost of the bins are costed at $45 each as per industry standard and the ACT Waste Infrastructure and Procurement Services Options Assessment, page 51 (attached)
- The ACT Waste Infrastructure and Procurement Services Options Assessment report states that in order to establish a third garden waste bin system, only a new collection contract would need to be established and a processing charge paid (page 103)
- The cost of the collection is based off the current cost of the 240 litre fortnightly recycling kerbside collection, this I estimated to be $25.86 in 2014-15 and $26.17 in 2015-16 (see attached)
- The number of houses to receive the collection is estimated at 133,366 in 2014-15 and 136,034 in 2015-16 (see attached)
- The tonnes of green waste to be collected is a conservative estimate of 300 kgs per household per year, given that on average a house in NSW that has a 240 litre fortnightly garden bin collection would dispose of 269 kgs per year (NSW Local Government Waste and Resource Recovery Data Report – attached)
- The would be a total of 40,010 tonnes in 2014-15 and 40,810 tonnes in 2015-16
- A conservative processing charge of $50 per tonne has been factored in to account for contamination, as advice from Penrith City Council is that the current charge for their green waste program is $21 per tonne
- $50,000 has been provided for an education and information campaign advising residents of the new bin system
- Carbon tax costs have not been factored in as this is considered a second round economic affect
- It is expected that the processing cost will be decreased due to the successful business being able to sell the mulched end product
- The capital funding will be met from within the existing unallocated capital budget
- The cost of capital has been calculated at 4.25% as per Treasury advice.
- See attached documents for background working and further explanation

Where relevant, is the funding for the policy to be demand driven or a capped amount?
Demand Drive – as more houses eligible for the kerbside collection are built, the program will expand

Will third parties, for instance the Commonwealth or other State/Territories, have a role in funding or delivering the election commitment?
n/a

Will funding/the cost require indexation?
Each component has been indexed at a different rate due to historical trends

What are the estimated revenue and operating costs each year (if available) and what are the capital requirements for this election commitment and estimated costs each year (if available)?

	2012-13	2013-14	2014-15	2015-16	Total
	$'000	$'000	$'000	$'000	$'000
Revenue[(a)]					
Expenses[(a)]	0	-730	-6,130	-6,285	-13,145
Capital	0	16,005	0	0	16,005

(a) A negative number indicates a decrease in revenue or an increase in expenses.

What is the likely take up?
n/a

Any other assumptions?
No costing is requested to be undertaken for 2016-17, in line with the Canberra Liberals stated approach to use the standard of the current published budget and forward estimates period of 2012-13 to 2015-16.

The total costs above differ slightly from the attached documents due to the inclusion of the cost of capital

Administration of the election commitment

How will the election commitment be administered?
In line with the existing administrative arrangements for waste contracts

Who will administer the election commitment?
TAMS

Has an allowance been made for expenses necessary to support the implementation of this election commitment?
Seeking a contract for the collection is considered business as usual – the facility will be ran by the private sector

What is the intended implementation date of the election commitment?
Tenders for the processing plant will begin in 2013-14

Are there transitional arrangements associated with election commitment implementation?
n/a

Are there any other assumptions that need to be considered?
A more complex and costly system involving organics was costed by Treasury in 2008 at approximately $7.5 million per year including collection and processing

When is the election commitment expected to be fully operational?
The collection is expected to begin in 2014-15

Garden Bins – Costing Justification

This initiative is not simply indexed over the forward estimates due to the number of factors affecting the cost each year. Each section outlines the assumptions for the cost over the forward estimates.

It is expected that the garden bin system would not be operational until 2014-15.

Household Collection

The number of households has been calculated based on the number of fortnightly recycling collections in 2010-11 and 2011-12. There is a 2% growth between the years (QoN 1717 and E12-344 attached) and therefore this factor is applied over the forward estimates to estimate the number of fortnightly collections for a garden bin.

(125,674 – 123,199) / 123,199 = 2%

2012-13: 128,187

2013-14: 130,751

2014-15: 133,366

2015-16: 136,034

Collection Cost

The collection cost has been based off the cost of the fortnightly kerbside collection of the 240 litre recycling bin which was $24.95 in 2011-12 (QoN E12-344).

This cost has been indexed at 1.2% over the forward estimates based on the average growth of a four year period of total 'kerbside collection cost per household' as provided by the budget papers (attached).

2009-10: 66.67

2010-11: 65.86

2011-12: 68.16

2012-13: 69.00

Average growth = 1.2%

This growth puts the collection cost at $25.86 in 2014-15 and $26.17 in 2015-16.

The total cost of collecting the garden bins is then calculated as the number of collections multiplied by the collection cost.

2014-15: 133,366 x $25.86 = $3,448,721

2015-16: 136,034 x $26.17 = $3,559,908

Tonnes of Green Waste Processed

The total tonnes of garden waste collected in this policy is based off the 'average annual quantity of kerbside garden organics collected by a collection system' in NSW in 2009-10. The NSW Local Government Waste and Resource Recovery Data Report, states that a 240 Lt fortnightly service collects on average 269kgs of garden waste per household per year (attached).

Assuming 300kgs per household in our costing, the total tonnes of green waste to be processed would be:

2014-15: (300 x 133,366) / 1000 = 40,010 tonnes

2015-16: (300 x 136,034) / 1000 = 40,810 tonnes

The ACT Waste Infrastructure and Procurement Services Options Assessment estimates that 139,584 tonnes of garden waste would be composted through a kerbside collection in 2014. However, based on our estimated number of homes to receive the collection (similar to the kerbside garbage and recycling), this would mean that each house would attribute over 1 tonne of garden waste per year. We view this to be unrealistic and have used the average NSW household instead.

Processing Charge

The processing charge has been estimated at $50 per tonne as per the ACT Waste Infrastructure and Procurement Services Options Assessment, page 31.

This price per tonne is considered to be conservative as advice from Penrith City Council regarding the per tonne charge for their green waste program is $21 per tonne. The inflated price would account for an increased contamination risk.

2014-15: 50 x 40,010 = $2,000,500

2015-16: 50 x 40,810 = $2,040,500

Education Campaign

Any additional funding required for advertising over and above the $50,000 will be met from within the Directorate's existing departmental resources.

Bins – Capital

It is anticipated that the bins will be delivered to single dwelling households towards the end of the 2013-14 financial year with the service due to begin 1 July 2014.

The capital cost for the bins are calculated using the assumed 133,366 houses with a capital cost of $45 per bin based of the ACT Waste Infrastructure and Procurement Services Options Assessment, page 51 (attached).

$45 x 133,366 = 6,001,470

Any additional bins needed for the 2015-16 year will be met from the Directorate's existing capital budget or the service provider.

Garden Bins

	2012-13	2013-14	214-15	2015-16
Collection	0	0	3,448,721	3,559,908
Processing	0	0	2,000,500	2,040,500
Education Campaign	0	50	0	0
Bins - capital	0	6,001,470	0	0
Capital Grant	0	10,000,000	0	0
Total Recurrent	**0**	**50**	**5,449,221**	**5,600,408**
Capital	**0**	**16,005**	**0**	**0**
For Costing Recurrent	**0**	**50**	**5,450**	**5,605**

	009-10	2010-11	2011-12	2012-13	
Collection Cost - 2 bins	66.67	65.86	68.16	69.00	Average growth %
% Growth from previous year		-1.2	3.5	1.2	1.2

Cost of fortnightly recycling service in 2011-12 $24.95

	2012-13	2013-14	2014-15	2015-16
Cost of green collection (1.2% growth)	25.25	25.55	25.86	26.17

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Housing Stock (2% growth)	123,199	125,674	128,187	130,751	133,366	136,034
% growth from prev. Year		2.01				

	2014-15	2015-16
Total Collection Cost	**3,448,721**	**3,559,908**

	2014-15	2015-16
Tonnes Collected per year @ 300 kgs per household	**40,010**	**40,810**

	2014-15	2015-16
Total Processing Charge $50/t	**2,000,494**	**2,040,504**

Bins @ $45 each	**6,001,470**

3.4.1 GARDEN WASTE COLLECTION SCENARIO

The introduction of new kerbside services for garden waste is considered to carry a low level of technical risk. The processing facility for managing this material already exists and has been operational for a significant length of time. The self-hauled garden waste that is currently processed is generally clean and uncontaminated, producing a reasonably high quality compost product. However, significant increases in contamination levels are anticipated following the introduction of kerbside collections, and this would be expected to reduce the quality of products and may therefore change the marketability of the end-product under this scenario.

There is a low level of planning risk associated with the Garden 3rd bin scenario (given no need to commission new infrastructure), although it is expected that licensing requirements may change due to the small increase in the quantity of garden waste processed. As the overall increase in resource recovery is minimal, however, this scenario is not considered to contribute significantly to the objectives of the ACT Draft Waste Strategy or Climate Change Policy.

Collection of a third bin for garden waste is expected to be well integrated with the current waste infrastructure, collection services and related systems, although a new collection contract will need to be developed and specific contamination management systems introduced. The new collection has been assessed to require a reasonable level of community engagement, with a change in community behaviour required to use the new bin and to manage contamination. The introduction of an additional kerbside collection service would provide a benefit of increased convenience for residents, particularly low-income and elderly people.

3.4.2 ORGANIC WASTE COLLECTION SCENARIO

The introduction of a new kerbside collection service for combined food and garden waste under Organic 3rd bin scenario is considered to carry a low level of technical risk. While construction of a new processing facility would be required, in-vessel composting technology is well established in Australia, the technology is relatively simple, and operational difficulties are unlikely to occur - providing the facility is operated by an experienced contractor.

The quality of the end-product is expected to be lower than the current composting process, due to significant potential for increased contamination.

The modelling assumes a suitable site for the new composting facility is available either within one of the existing composting sites or on Government-owned land. Planning approval and licensing processes for the in-vessel system are therefore expected to be relatively straightforward and, assuming close proximity to an existing composting facility, it is unlikely that environmental or social impacts (particularly including odour, noise and traffic) will raise additional public concern about the facility construction. A lead time of approximately 3-4 years is expected, based on Hyder's understanding of previous experiences with similar facilities in the Sydney region.

As for the Garden 3rd bin option, introduction of a third bin for combined food and garden waste in this scenario is expected to be well integrated into the current waste systems, but a new collection contract and contamination management system must be developed and implemented. The introduction of a new kerbside bin, in addition to use of lined kitchen tidy bins, will require considerable community engagement to result in behaviour change and to minimise contamination levels. As residents will be required to source-separate food in the kitchen and will still be expected to self-haul a proportion of garden waste, convenience benefits of this service to residents are considered to be neutral.

Estimates - QoN No. E12-344

LEGISLATIVE ASSEMBLY FOR THE AUSTRALIAN CAPITAL TERRITORY

SELECT COMMITTEE ON ESTIMATES 2012-2013

QUESTION ON NOTICE

Mr Coe : To ask the Minister for Territory and Municipal Services

[Ref: Territory and Municipal Services, Budget paper 4, page number 106, Output Class 1.3]

In relation to : Waste Collection

1. For the cost indicator 'Annual contractor cost of kerbside collection per household' what portion of this cost is for:

   a. Waste (garbage) collection?

   b. Recycling collection?

2. In the 2011-12 year, how many households in the ACT receive the weekly and fortnightly waste and recycling collection?

3. In the 2011-12 year how many waste hoppers were receiving a weekly or fortnightly collection?

4. How many 240 litre yellow bins have been lost or stolen as at 1 June 2011-12?

   a. What was the cost to replace these?

5. How many 140 litre green waste bins have been lost or stolen at as 1 June 2011-12?

   a. What was the cost to replace these?

Ms Gallagher : The answer to the Member's question is as follows:–

1. For the cost indicator 'Annual contractor cost of kerbside collection per household' the portion of the cost are:

   a. For waste (garbage) collection, based on the cost to the end of the March 2012 quarter, $43.21 per household.

   b. For recycling collection, based on the cost to the end of the March 2012 quarter, $24.95 per household.

E12-344

2. For June 2012 there were 123,017 weekly waste collection services and 125,674 fortnightly recycling collection services, based on single and multi unit developments and including additional waste and recycling bins. This figure reflects the general trend throughout the year.

3. All waste hoppers are collected at a minimum of at least once every week. At the end of the 2011-12 financial year 25,773 waste hoppers were collected. These figures are based on the June 2012 invoice for services.

4. During the 2011-12 financial year, 942 yellow-lidded 240lt recycling bins were lost or stolen.

   a. The cost to replace bins that are lost or stolen is the responsibility of the contractor for domestic waste collections, Cleanaway Services. The figures are not available as they are considered by Cleanaway as commercial in confidence.

5. During the 2011-12 financial year, 2209 green lidded 140lt general waste bins were lost or stolen.

   a. The cost to replace bins that are lost or stolen is the responsibility of the contractor for domestic waste collections, Cleanaway Services. The figures are not available as they are considered by Cleanaway as commercial in confidence.

Approved for circulation to the Standing Committee on Estimates 2012-2013

Signature: K. Gallagher Date: 12.7.12

By the Minister for Territory and Municipal Services, Katy Gallagher, MLA

MINISTER FOR TERRITORY AND MUNICIPAL SERVICES

ACT LEGISLATIVE ASSEMBLY QUESTION

Notice Paper No. 111 of 16 August 2011

Question No. 1717

Mr Coe – Asked the Minister for Territory and Municipal Services

(1) What was the 2010-11 annual cost of collection for residential (a) yellow recycling and (b) green garbage bins and what was the cost of collection per household for each.

(2) How many households in the ACT receive the weekly and fortnightly waste collection.

(3) How many applications were received to upgrade to a 240 litre garbage bin in 2010-11 and (a) how many of these applications were approved and (b) what was the total cost of these upgrades.

(4) How many applications were received for a new set of bins for a new house in 2010-11.

(5) How many lost or stolen (a) 240 litre yellow and (b) 140 litre green bins were replaced in 2010-11 and what was the total cost of these replacements.

Mr Corbell - The answer to the Member's question is as follows:

(1) Based on the most recent invoice for these services the costs are:

(a) The annual cost for 240 litre recycling bins to single dwellings is $3,071,823.60 and the cost per service is $24.73.

(b) The annual cost for 140 litre garbage bins at Single dwellings is $5,292,634.60 and the cost per service is $44.21.

(2) There were 120,841 waste services and 123,199 recycling services provided to single dwellings at 30 June 2011. In addition, there were 23, 986 waste hoppers and 13,639 recycling hoppers collected from multi-unit residences in June 2011. The number of services varies from month to month due to new dwellings and additional services ordered.

(3) (a) None as this service was not available until 1 July 2011.

(b) Not applicable.

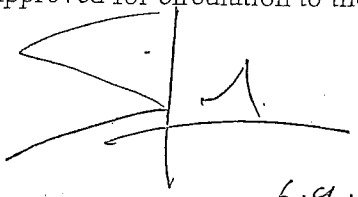
(4) 1,726.

(5) (a) 951.

(b) 3,106.

The total cost of replacement was $211,628. These costs were met from within the current domestic waste services contract.

Approved for circulation to the Member and incorporation in Hansard.



6.9.11

Simon Corbell MLA
Minister for Territory and Municipal Services

Date:.....

Accountability Indicators cont.

	2011-12 Targets	2011-12 Est. Outcome	2012-13 Targets
Output 1.2: Roads and Sustainable Transport			
Infrastructure			
a. Annual percentage of territorial roads resurfaced[1]	5%	4%	5%
b. Annual percentage of municipal roads resurfaced[1]	4%	3%	4%
c. Percentage of customers satisfied with the public road network	> 70%	70%	>70%
d. Percentage of territorial roads in good condition	> 88%	88%	>86%
e. Percentage of bridges that meet SM1600 standard on the B Double Network[2]	> 70%	71%	>73%
Sustainable Transport			
f. Increase in length (km) of on-road cycle lanes[3]	50	25	25
g. Increase in length (km) of bus priority/transit lanes[4]	0.2	0.2	0.5
h. Increase in length (km) of community paths[5]	35	50	35

Notes:

1. 2011-12 estimated outcome impacted by prolonged wet weather conditions.
2. SM1600 standard is a theoretical loading designated by Australian Standards 5100 2004 Bridge Design which should ensure that bridges can carry future vehicle loadings.
3. 2011-12 estimated outcome impacted by prolonged wet weather conditions. 2012-13 target amended to reflect proposed program of works. The indicator includes the length of on road cycle lanes in the network that meet the current standard width requirements. Sections of existing lanes that do not meet this standard are not included in the indicator until they are remarked and become compliant.
4. 2012-13 target reflects proposed program of works.
5. 2011-12 estimated outcome reflects greater than expected transfer of assets from new developments such as Bonner, Crace, Harrison and Wright.

	2011-12 Targets	2011-12 Est. Outcome	2012-13 Targets
Output 1.3: Waste and Recycling			
a. Annual tonnes of waste to landfill per head of population[1]	0.70	0.84	0.88
b. Annual total resource recovery tonnage per head of population	1.44	1.44	1.44
c. Percentage of material recovered from the total waste stream	73%	73%	75%
d. Annual contractor cost of kerbside collection per household	$69.46	$68.16	$69.00
e. Cost of recyclables processing per tonne at Hume Materials Recovery Facility	$20.87	$20.69	$20.87
f. Percentage of customers satisfied with waste collection services	>90%	>90%	>90%
g. Contract cost of landfill waste per tonne[2]	$12.70	$12.07	$12.50

Notes:

1. 2011-12 estimated outcome and 2012-13 target reflect increased economic activity resulting from an increase in commercial and industrial waste.
2. 2011-12 estimated outcome reflects increased projected waste to landfill due to higher than anticipated commercial and industrial waste.

Accountability Indicators cont.

	2010-11 Targets	2010-11 Est. Outcome	2011-12 Targets
Output 1.2: The Office of Transport			
Infrastructure			
a. Annual percentage of territorial roads resurfaced	5%	5%	5%
b. Annual percentage of municipal roads resurfaced[1]	4%	3%	4%
c. Percentage of customers satisfied with the public road network	> 70%	72%	>70%
d. Percentage of territorial roads in good condition	> 88%	88%	>88%
e. Percentage of bridges that meet SM1600 standard on the B Double Network[2]	> 60%	69%	>70%
Sustainable Transport			
f. Increase in length (km) of on-road cycle lanes[1]	50	35	50
g. Increase in length (km) of bus priority/transit lanes[3,4]	1	3.7	0.2
h. Increase in length (km) of community paths[5]	35	40	35
Transport Planning and Regulation[7]			
i. Taxi cab waiting times within required standard[7]	100%	100%	n/a
j. Taxi cab waiting times (wheelchair accessible taxis) within required standard[7]	100%	100%	n/a
k. Number of random vehicle inspections per annum[6, 7]	56,000	50,000	n/a
l. Number of audits of accredited driving instructors per annum[7]	440	440	n/a
m. Number of audits of authorised vehicle examiners per annum[7]	600	600	n/a
n. Percentage of "in use" time of fixed speed cameras[3, 7]	95%	96%	n/a

Notes:
1. Estimated Outcome impacted by prolonged wet weather conditions that have delayed the delivery of programs.
2. Estimated Outcome and 2011-12 Target reflect the ongoing program, with 18 bridges assessed in December 2010 and 15 re-rated to SM1600.
3. Estimated Outcome reflects the completion of three major capital works projects that focused on public transport.
4. 2011-12 Target reflects changing work programs.
5. Estimated Outcome reflects higher levels of new sub-divisional developments.
6. Estimated Outcome is impacted by unexpected staff absences in the on-road and vehicle inspection station teams.
7. Transport Planning & Regulation function will transfer out of the Directorate, effective 1st July 2011, following changes to Administrative Arrangements.

	2010-11 Targets	2010-11 Est.Outcome	2011-12 Targets
Output 1.3: Waste and Recycling			
Waste and Recycling			
a. Annual tonnes of waste to landfill per head of population[1,2]	0.59	0.67	0.70
b. Annual total resource recovery tonnage per head of population	1.5	1.56	1.44
c. Percentage of material recovered from the total waste stream[3]	75%	69%	67%
d. Annual contractor cost of kerbside collection per household	$68.80	$65.86	$69.46
e. Cost of recyclables processing per tonne at Hume Materials Recovery Facility	$20.60	$20.48	$20.87
f. Percentage of customers satisfied with waste collection services	98%	98%	98%
g. Contract cost of landfilling waste per tonne[4]	$16.40	$12.40	$12.70

Notes:
1. Estimated Outcome is impacted by increased economic growth and the delivery of treated contaminated fill from the West Molonglo Ponds project.
2. 2011-12 Target reflects increased building and economic activity and an increase in commercial and industrial waste.
3. 2010-11 Target was based on data reported from industry during 2009-10. This data included a substantial over-estimate of annual tonnages by a large recycler which artificially inflated resource recovery results for that year. That error has subsequently been corrected, lowering the estimate of resource recovery for 2011-12. The reduced Estimated Outcome for 2010-11 along with the 2011-12 Target reflect the continuing growth of waste to landfill compared to resource recovery.
4. Estimated Outcome and 2011-12 Targets reflect a combination of higher waste to landfill and reduced operational cost.

Accountability Indicators cont.

	2009-10 Targets	2009-10 Est. Outcome	2010-11 Targets
Output 1.3: Waste and Recycling			
Waste and Recycling			
a. Annual tonnes of waste to landfill per head of population	0.50	0.57	0.59
b. Annual total resource recovery tonnage per head of population	1.5	1.5	1.5
c. Percentage of material recovered from the total waste stream	75%	75%	75%
d. Annual cost of kerbside collection per household[1]	$66.30	$66.67	n/a
e. Annual contractor cost of kerbside collection per household[1]	n/a	n/a	$68.80
f. Cost of recyclables processing per tonne[2]	$19.70	$19.85	n/a
g. Cost of recyclables processing per tonne at Hume Materials Recovery Facility[2]	n/a	n/a	$20.60
h. Percentage of customers satisfied with waste collection services	98%	98%	98%
i. Operational cost of landfilling waste per tonne[3]	$17.40	$16.40	n/a
j. Contract cost of landfilling waste per tonne[3]	n/a	n/a	$16.40

Notes:
1. Existing indicator (d) discontinued and replaced with (e) for clarity.
2. Existing indicator (f) discontinued and replaced with (g) for clarity.
3. Existing indicator (i) discontinued and replaced with (j) for clarity.

	2009-10 Targets	2009-10 Est. Outcome	2010-11 Targets
Output 1.4: Land Management			
Land Management			
a. Report on delivery of the Tree Watering Program[1]	Jan 2010	Jun 2010	n/a
b. Report on delivery of the Hazardous Tree Program[1]	Jan 2010	Jan 2010	n/a
c. Park Management plans are less than 10 years old[1,3]	100%	60%	n/a
d. Customer satisfaction with the management of Town and District Parks[2]	n/a	n/a	90%
e. Customer satisfaction with the maintenance and pruning of street trees[2]	n/a	n/a	80%
f. Customer satisfaction with the management of Nature Parks (Tidbinbilla Nature Reserve and Namadgi)[2]	n/a	n/a	90%
g. Implement activities identified under the Bushfire Operational Plan (BOP)[2]	n/a	n/a	100%
h. Report of the delivery of the program for Pest Plants and Feral Animals[1]	Jan 2010	Jun 2010	n/a
i. Report on the delivery of prior year Bushfire Operations Plan activities[1]	Jul 2010	Jul 2010	n/a
j. Report on delivery of prior year Threatened Species Action Plans[1]	Sep 2010	Sep 2010	n/a
k. Customer satisfaction with children's play equipment being well maintained[2]	n/a	n/a	90%
l. Customer satisfaction with the general look and feel of local suburban shopping centres[2]	n/a	n/a	89%
m. Responses on Development Applications referred from ACTPLA completed within agreed timeframes[2]	n/a	n/a	85%
n. Respond to developers' submissions within adopted timeframes[2]	n/a	n/a	85%

Notes:
1. Existing indicator discontinued.
2. New indicator.
3. The Estimated Outcome reflects current program of works that have been scheduled for completion at 30 June 2010.

Accountability Indicators cont.

	2008-09 Targets	2008-09 Est. Outcome	2009-10 Targets
Output 1.2: The Office of Transport			
Infrastructure			
a. Annual percentage of territorial roads resurfaced	5%	4%	5%
b. Annual percentage of municipal roads resurfaced	4%	3.80%	4%
c. Percentage of customers satisfied with the management of infrastructure services	70%	70%	70%
d. Percentage of territorial roads in good condition	85%	90%	88%
e. Percentage of bridges that meet SM1600 standard on the B Double Network	48%	51%	53%
Sustainable Transport			
f. Increase in length (km) of on-road cycle lanes	10	10	50
g. Increase in length (km) of bus priority/transit lanes	1	1	1
h. Increase in length (km) of community paths	20	20	20
Transport Planning and Regulation			
i. Taxi cab waiting times within required standard	100%	99%	100%
j. Taxi cab waiting times (wheelchair accessible taxis) within required standard	100%	95%	100%
k. Number of random vehicle inspections	56,000	46,000	56,000
l. Number of audits of accredited driving instructors per annum	440	440	440
m. Number of audits of authorised vehicle examiners per annum	600	600	600
n. Percentage down time of fixed speed cameras	8%	5%	5%

	2008-09 Targets	2008-09 Est. Outcome	2009-10 Targets
Output 1.3: Waste and Recycling[1]			
Waste and Recycling			
a. Annual tonnes of waste to landfill per head of population	0.59	0.53	0.5
b. Annual total resource recovery tonnage per head of population	1.49	1.5	1.5
c. Percentage of material recovered from the total waste stream	72%	75%	75%
d. Annual cost of kerbside collection per household	$63.20	$65.80	$66.30
e. Cost of recyclables processing per tonne	$21.70	$20.04	$19.70
f. Cost of green waste processing per tonne[2]	$3.00	$3.30	n/a
g. Percentage of customers satisfied with waste collection services	98%	97%	98%
h. Operational cost of landfilling waste per tonne	$13.80	$16.20	$17.40

Notes:

1. All sustainability outputs transferred to the new Department of Environment, Climate Change, Energy and Water following the Administrative Arrangements of 10 November 2008.
2. Measure deleted — it cannot accurately be measured as weighbridges are not in operation for green waste.

Table 14 Existing composting facility specifications

Existing windrow composting	Value/Comment
Facility type	Open windrow composting
Facility performance	Indirect upstream emissions: Diesel consumption: 3L/t therefore equivalent to 0.0081 t CO_2-e per tonne of material composted (negligible electricity use) (Boldrin et al, 2009) Direct process emissions: CH_4 and N_2O: 0.043 t CO_2-e/t **For sensitivity analysis:** In order to evaluate the impact of different magnitudes of N_2O emissions from composting on the total GHG emissions associated with composting, the following low and high N_2O emissions factors were applied in the sensitivity analysis: 0.020 t CO_2-e/t (low value for N_2O emissions) 0.065 t CO_2-e/t (high value for N_2O emissions) (Amlinger et al, 2008)
Feedstock composition	Garden waste only
Gate fees	$3/t (+CPI) for self-hauled garden waste (BAU and the Organic waste colletion and Education scenarios) $50/t [29](+CPI) for garden waste collected using a 3rd bin collection system (Garden waste collection scenario)
Products	Mulches, soil conditioners, composts of varying grades

Combined food and green waste collected in a new kerbside service (Organic 3rd bin scenario) is assumed to be treated in an enclosed windrow composting facility (i.e. windrows housed within a shed forming a tunnel), with forced aeration of piles and exhaust air passing through a biofilter. The windrows are assumed to be turned at least every 3 days, with the maturation process complete after 5-6 weeks. The general specifications of the existing facilities, as used in the modelling assessment, are outlined in Table 15.

[29] Figure derived from results of Market Sounding Study.

Item	Cost	Comment	Cost inclusion for which scenario
Biodegradable liner bags (10L)	$12 per household (based on 7.5c/bag and 3 bags per household per week)	Hyder Consulting, industry knowledge. Note: Supply price does not include distribution to households	Organic waste collection and Education scenarios
Additional Kerbside MGB (80 litres)	$37 per household (replacement after 10 years)	Hyder Consulting, industry knowledge	Organic waste collection scenario
Additional Kerbside MGB (240L)	$45 per household	Hyder Consulting, industry knowledge	Garden waste collection scenario
Home Compost Bins (with augur for turning)	$70 per household	Based on budget estimates provided by Waverly Council.	Education scenario

2.3.3 CARBON PRICING

The Australian Federal Government's Clean Energy Future Legislative Package was passed through the House of Representatives on October 12, 2011 and through the Senate on November 8, 2011.

The Clean Energy Future Legislative Package includes four main Acts which set up the carbon pricing mechanism and assistance packages, administration:

1. the Clean Energy Act 2011
2. the Clean Energy Regulator Act 2011
3. the Climate Change Authority Act 2011
4. the Clean Energy (Consequential Amendments) Act 2011.

The legislative package will have wide-ranging impacts on the Australian economy. The modelling in this current study considers the impact of the carbon pricing mechanism that will be introduced. The mechanism will have the following key design elements[47]:

- A legislated target to reduce Australia's emissions by 80 per cent below 2000 levels by 2050 (previously set at 60 per cent)
- A fixed price commencing on 1 July 2012, moving to a flexible price after three years
- A fixed starting price of $23 per tonne in 2012-13, rising in real terms by 2.5% per year to $24.15 in 2013-14 and $25.40 in 2014-15
- A "hard wired" transition to a flexible price cap and emissions trading scheme on 1 July 2015, with pollution caps set for the first five years of the scheme in the 2014 budget, and

[47] *Carbon pricing mechanism snap shot: key features, certainty and flexibility*, published online by Norton Rose: http://www.nortonrose.com/au/knowledge/publications/53632/carbon-pricing-mechanism-snap-shot-key-features-certainty-and-flexibility

Table 8: Average reported annual quantity of kerbside garden organics collected, by collection system

Collection system	SMA	ERA	RRA	Rest of the state	No. of councils	Household collections	
						kg/hh/yr	kg/hh/wk
240L MGB (Fortnightly)	22	5	7	7	41	268.97	5.17
240L MGB (Weekly)	4	–	5	–	9 **	360.51	6.93
240L MGB (Monthly)	2	–		3	5	145.66	2.80
Others (Various)*	5	–		–	5	173.40	3.33
No Service	5	7	8	68	88	–	–

* Combination of Tied and Bundled + Crate+ MGBs, or mix of MGBs, or crates + MGBs. Frequency (Various).

** The collected quantity from one council is also included in AWT figure.

Figure 9 below compares the average weekly quantity collected of household garden organics by collection system type. The 41 councils who used the fortnightly 240L MGB collection system were geographically spread across the SMA, ERA, RRA and the rest of the State and collectively serviced over 1.6 million households.

Figure 9: Average reported weekly kerbside garden organics collected, by collection system