
OPTIONS FOR RECYCLING AND COMPOSTING STRATEGY

**Responsible Cabinet Member - Councillor Wallis,
Sustainable Environment and Climate Change Portfolio
Responsible Director - Cliff Brown, Director of Community Services**

SUMMARY REPORT

Purpose of the Report

1. To establish a strategy for recycling and composting targets, tying into the new waste management contract.

Summary

2. This report presents options to Members to consider for the future strategy for recycling and composting targets for the Council. The report considers the European and national drivers, existing service and performance, the new Waste Treatment, Recycling and Disposal Contract and financial implications.
3. The report also presents a case for increasing the budget associated with marketing and publicity for waste management across all options to encourage residents to make waste work by reducing, reusing and recycling.
4. The outcome of the procurement process for the Waste Treatment, Recycling and Disposal Contract would have presented a range of different options depending on the treatment technology of each tenderer. In this respect, the treatment process the successful contractor is utilising, largely determines the options that are available to the Council in developing its strategy for recycling and composting.
5. The report therefore considers three options that align with the technology to be developed, that can deliver recycling and composting rates between 40% and 70%. Option 1 does not require any change. Option 2 would require changing the materials collected separately at kerbside and Option 3 would require significant change in collection arrangements including a separate kitchen waste collection service. Alongside the three options, the financial implications and other key issues are drawn out for consideration by Members.
6. At the start of the procurement process for the new Waste Treatment, Recycling and Disposal Contract, the Council realised that there was going to be a requirement to increase the MTFP as a result of costs associated with the new contract and increasing landfill tax at £8 per tonne through to 2010/11. An additional £1 million has been built into the MTFP from 2009/10 to account for these costs, therefore any increase in costs associated with the

option chosen for the Recycling and Composting Strategy needs to be taken in view of this additional £1 million invested in waste management.

7. Finally the report concludes that Option 2, removing PET plastic, cans and textiles from kerbside collection but adding card to the service is the most appropriate option for the Council. This option provides the Council with the opportunity to significantly improve performance, up to 10% beyond the 2020 national targets, at the same time delivering efficiencies of between £100,000 and £300,000 reducing the overall additional financial burden on the MTFP for waste management.

Recommendation

8. It is recommended that:
 - (a) Members agree to Option 2 for the Recycling and Composting Strategy.
 - (b) Economy and Environment Scrutiny considers this strategy when undertaking its Task and Finish Review of Waste Minimisation focusing on reducing and reusing waste.

Reasons

9. The recommendations are supported by the following reasons:
 - (a) Option 2 presents the Council with the opportunity to significantly improve recycling performance and at the same time reducing the overall financial burden placed on the MTFP from waste management.
 - (b) Economy and Environment Scrutiny can assist the Council in encouraging residents to think about waste by minimising the amount they produce.

Cliff Brown
Director of Community Services

Background Papers

- a) National Waste Strategy 2007

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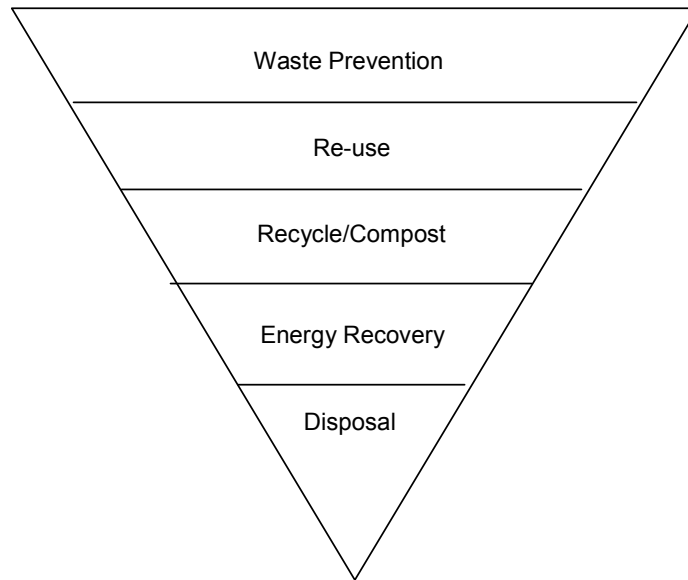
S17 Crime and Disorder	It is not considered that there is significant impact on crime and disorder as a result of this report, however it is a criminal offence to place waste out too early for collection, for which the Council will take appropriate action. In addition, a number of secondary fires are as a result of refuse and other household waste being left out.
Health and Well Being	By providing an efficient refuse/recycling collection system, does impact positively on the health and well being of residents.
Sustainability	This report presents three options for improving recycling and composting performance and reducing the amount of waste to landfill. The treatment process significantly reduces the biodegradable element of waste going to landfill. The overall new waste collection and treatment process will have a significant positive impact on climate change.
Diversity	As there is no proposed changes to the method of collection, only materials collected separately at kerbside for recycling, there will be no impact on any particular group. The Council's current assisted collection policy will continue.
Wards Affected	All Wards will be affected.
Groups Affected	The refuse and recycling services operate across the Borough to all residents therefore there is no changing effect on any particular group.
Budget and Policy Framework	The Council has already added an additional £1 million into the MTFP from 2009/10 to fund the new Waste Treatment, Recycling and Disposal Contract and increase landfill tax costs. The report considers the financial implications of each option presented and any additional financial implications on the MTFP. Depending on the option agreed by Members, there could be a move away from existing collection policy to a new one collecting different source separated materials from the kerbside.
Key Decision	This is considered to be a key decision as it will have significant impact on all residents, as they will be required to change the materials they separate for recycling at kerbside.
Urgent Decision	This is not classed as an urgent decision.
One Darlington: Perfectly Placed	The Recycling and Composting Strategy for the Borough will assist in the delivery of the Sustainable Community Strategy, around Perfectly Placed in particular through the Greener objective.

MAIN REPORT

Information and Analysis

10. The Council has recently undertaken a procurement exercise and entered into a contract with Stonegrave Aggregates to treat, recycle and dispose of all Darlington Borough Council's municipal waste from 6 April 2009. The new contract gives the Council the opportunity to deliver a step change in its approach to waste management.
11. The fundamental objective of the new contract is to manage waste in an environmentally and economically sustainable manner and in particular significantly divert waste from landfill and enable the Council to meet or exceed applicable landfill directive, Waste Emissions Trading Act 2003, Landfill Allowance Trading Scheme (LATS) and similar targets. In addition, the service should:
 - (a) Allow the Council to fulfil its statutory obligations under the Environmental Protection Act 1990, Section 48 (1 and 51) (1).
 - (i) For waste collection authorities (which DBC is) to deliver waste for disposal.
 - (ii) Provide facilities for disposal of waste and provide a place for residents to dispose of household waste (Household Waste Recycling Centre).
 - (b) Help minimise the amount of waste collected.
 - (c) Significantly increase levels of recycling, composting and recovery.
 - (d) Be affordable and offer value for money thereby assisting the Council in its Best Value duty.
12. There are a number of key drivers to consider when looking at options for a Recycling and Composting Strategy:
 - (a) European Waste Framework Directive

The European Waste Framework Directive introduced the concept of the waste hierarchy, which is shown below. Waste prevention is at the top of the waste hierarchy and as such is the preferred option for dealing with waste. The waste hierarchy then moves through options of reuse, recycling, composting and energy recovery, with disposal as the least preferred option for the management of waste.



disposed of to landfill. Biodegradable waste is organic material that breaks down, producing a mixture of greenhouse gases and can contribute to climate change.

(i) 2010

By 2010, to reduce the amount of Biodegradable Municipal Waste (BMW) to landfill to 75% of that produced in 1995.

(ii) 2013

By 2013, to reduce the amount of BMW to landfill to 50% of that produced in 1995.

(iii) 2020

By 2020, to reduce the amount of BMW to landfill to 35% of that produced in 1995.

(c) Household Waste Recycling Act

The Household Waste Recycling Act places a duty on waste collection authorities to collect at least two types of recyclable waste together or individually separated from the rest of household waste by 31 December 2010.

(d) Waste Strategy for England 2007 Targets

The National Waste Strategy provides a greater focus for the prevention of waste with new targets to reduce the amount of household waste not reused, recycled or composted by 29% from 2000 levels by 2010 and by 45% by 2020. This is equivalent to a fall of 50% per person since 2000 by 2020, from 450 kilograms per person in 2000 to 225 kilograms per person in 2020. Higher national targets have also been set for recycling and composting of household waste:

- (i) At least 40% by 2010
- (ii) 45% by 2015
- (iii) 50% by 2020

DBC Existing Performance

13. There are currently 15 Best Value Performance Indicators relevant to waste management. Of those, for 2006/07, the Council currently have four in the top quartile, nine in the middle quartile (with a majority towards the bottom of that quartile) and two in the bottom quartile. A breakdown of the Best Value Performance Indicators is attached as **Appendix 1**.
14. The two most relevant PIs when considering the future Recycling and Composting Strategy are BV82a(i), Percentage of Household Waste Arisings Sent for Recycling and b(i) Percentage of Household Waste Arisings Sent for Composting. Nationally, current combined top quartile performance for these indicators is 38.41%. The Council's current combined performance against these two PIs is 22.71%.
15. There are no statutory targets for recycling and composting. However within the Waste Strategy for England 2007, targets are set at 40% for 2009/10 and 50% by 2020. Without a step change therefore, Darlington would continue to fall behind the best performers and not achieve targets set in the Waste Strategy for England 2007. The new contract presents Darlington with the opportunity to match or exceed the best performers.

Existing Waste Collection Arrangements

16. Darlington Borough Council currently operate a:
 - (a) Weekly black sack collection service from the kerbside (without providing the black sack).
 - (b) Fortnightly kerbside box (55 litre) and bag collection for paper, glass, cans, plastics (PET) and textiles.
 - (c) Garden waste, separate chargeable service (this waste is also sent to landfill).
17. There are currently 46,500 weekly residual black sack collections covered by 6 front line refuse rounds and a farm round.

18. In 2006/07, a total of 28,835 tonnes was collected through the black sack domestic refuse collection rounds.
19. The fortnightly dry recycling kerbside collection operates with approximately 3 ½ rounds with the following waste volumes for 2006/07:
 - (a) Paper = 2,897.6 tonnes
 - (b) Glass = 1,511.33 tonnes
 - (c) Cans = 216.58 tonnes
 - (d) Textiles = 18.16 tonnes
 - (e) PET Plastic = 101.85 tonnes
20. As can be seen from the above, 93% of the materials collected at kerbside are paper and glass.

New Contract

21. One of the key components of the new waste treatment/disposal contract is a mechanical, biological treatment plant (MBT). The performance of this plant, along with kerbside recycling collections presents a number of opportunities to set performance targets for recycling and composting. The new plant, based on 100 tonnes material input has the potential to perform as below:
 - (a) Deliver a 30% composting rate through evaporation and breakdown of organic material.
 - (b) Extract 30% of the material going into the plant for recycling, mainly paper, plastic, metals and glass.
 - (c) The remaining 40% of output will go to landfill.
22. The above figures for recycling (30% of paper, plastic, metals and glass) will be subject to finding suitable markets for the material, which are being developed all the time and being able to extract the material in an appropriate form. Over the duration of the contract, the majority of this waste will be able to be recycled. For the remaining 40% output that is landfilled, the contractor intends to work with the Environment Agency towards a position where they are able to count the bio stabilised element of the waste as either inert, or for it to be used on site for restoration, at which point that element will count towards composting.
23. There is a risk that the plant will not perform to the levels stated above, although this is considered to be low as it is tried and tested technology. Also within the contract, the financial risk of not meeting LATS and recycling and composting rates lies with the contractor.
24. £1m p.a. was added to the waste disposal budget in the MTFP to take account of the new contract and increases in Landfill Tax. The net revenue budget for 2009/10 is £3,864,075. I

Options for Recycling and Composting Strategy

25. Based on this core delivery from the new waste plant, in conjunction with the kerbside recycling collection service, there are three options for a Recycling and Composting Strategy to achieve a range of recycling and composting targets. These are considered below along with the financial implications and service issues.

Option 1: 40-50% Recycling and Composting

26. 40-50% recycling can be achieved without changing the current general waste and recycling collection arrangements. Alongside the new contract, this will deliver 49% recycling and composting performance as follows.
- (a) Performance from plant, 26%
 - (b) Performance from household waste recycling centre, 12%
 - (c) Performance from kerbside recycling collection, 9.5%
 - (d) Performance from bring sites, 1.5%
27. It is anticipated that over the duration of the contract, recycling and composting will increase as markets develop and the waste contractor is able to recycle/compost more material from the treatment process that in the early years will be going to landfill. It is in the contractor's long-term interest to do exactly this as there are financial benefits to the contractor to reduce the amount of waste going to landfill.

Financial Implications

28. The existing kerbside collection vehicles were purchased as part of a DEFRA grant and therefore externally funded. The replacement of these vehicles is not included in the MTFP. Currently there are four vehicles, which are struggling to cope with existing demand without any additional demand created through marketing and publicity. Replacement of the existing vehicles or something similar, depending upon the option chosen, will for an individual vehicle involve an annual leasing cost of approximately £23,500 p.a. or £117,500 p.a. for five vehicles. This will provide some additional capacity to accommodate additional demand. However, there will also be the additional annual running costs for the extra vehicle of approximately £30,000 per annum.

Option 1: Annual Financial Implications

Item	Expenditure	
	Increase	Decrease
Financing New Recycling Vehicles/additional running costs	147,500	
Overall Financial Impact	147,500	

Issues

29. The main issue to consider is:
- (a) Does this level of performance match with the ambitions the Council signed up to in One Darlington Perfectly Placed?

Option 2: Delivering 50-60% Recycling and Composting

30. Changing the materials collected from the kerbside presents the best opportunity to increase recycling performance by up to an additional 6% and at the same time, deliver savings of between £100,000 and £300,000 p.a. This would involve removing plastic, cans and textiles from the current kerbside recycling service but adding cardboard. Financial savings are achieved by:
- (a) Additional income through increased tonnage of cardboard, which will be significantly above that currently collected from plastic, cans and textiles.
 - (b) The cardboard collected at the kerbside will not require treatment at £73 per tonne.
 - (c) Deducting the treatment cost of plastic, cans and textiles having to go through the treatment process as they will no longer be separated.
31. As in paragraph 19, there is the same opportunity for recycling to increase over the duration of the contract.
32. After the waste has been treated through the plant, PET plastic, cans and other metals will be removed for recycling. The amount of material available will be significantly more than that which is currently collected at the kerbside. In addition, over the duration of the contract, the contractor will be removing other materials that can be recycled, such as textiles, tetra packs and other forms of plastic. Also residents will be able to take these materials to the Household Waste Recycling Centre and to a number of bring sites across the Borough. We would therefore only collect glass, paper and cardboard from the kerbside. This will deliver a total 52% recycling and composting performance as follows:
- (a) Performance from plant, 25%
 - (b) Performance from household waste recycling centre, 12%
 - (c) Performance from kerbside, 13.5%
 - (d) Performance from bring site, 1.5%
33. These figures are at the lower end of potential performance and only require an extra 20% increase in material generated from the kerbside. Realistically a further 3% recycling performance could be achieved based on attracting 40-50% extra material from the kerbside. The vehicles that would be utilised to collect paper, card and glass from the kerbside will be a split-bodied compaction refuse collection vehicles thereby allowing significantly more material to be collected than is currently the case with the existing recycling vehicles, which do not have compaction.

Financial Implications

34. There is a greater financial benefit in collecting glass, paper and cardboard from the kerbside and not treating it through the plant. To achieve the minimum levels identified above, would see a financial benefit of approximately £300,000 (see **Appendix 2**). If higher levels were achieved, this could be as high as £500,000.
35. There would, as with Option 1, be a need to purchase new kerbside recycling vehicles at an annual financing cost of £147,500.
36. There is a need to increase the budget associated with marketing/publicity for waste. This budget needs to be in the region of £50,000 p.a. to ensure that the message is continually delivered, encouraging residents to recycle and compost. Best practice suggests £2.50 per household. The current recycling budget is approximately £57,000. By the time staffing costs, replacement kerbside boxes, bring site emptying and maintenance and central charges are deducted, there is only £5,000 within this budget for marketing and promotion.
37. With nearly 47,000 properties, the budget should be approximately £117,000. The additional funding will be used to publicise whatever recycling scheme is adopted and used to engage with residents who currently do not use the kerbside recycling service. There are a number of best practice case studies of how participation rates can be increased using such techniques as door stepping and focus campaigns.
38. The overall financial benefit to the Council would be a saving of between £100,000 and £300,000.

Option 2: Annual Financial Implications

Item	Expenditure	
	Increase	Decrease
Financing New Recycling Vehicles/additional running costs	147,500	
Marketing and Promotion	50,000	
Changing Kerbside Recycling Arrangements		£300,000 to £500,000
Overall Financial Impact		£102,500 to £302,500

Issues

39. In this option there will be a change to the kerbside collection service, removing the separate collection of cans, plastic and textiles but adding card, which the public have requested for a number of years. The treatment process is more than capable of dealing with cans and plastics and will remove significantly more than would have been collected at the kerbside. These changes would therefore have to be included in a comprehensive Communications Strategy.

Option 3: 60-70% Recycling and Composting

40. In order to achieve 60% recycling, it would be necessary to collect additional materials separated by the resident. It would be proposed to introduce a separate kitchen waste collection system for composting through the treatment plant. This will deliver a total recycling and composting performance of 61% as follows:
- (a) Performance from plant, 34%
 - (b) Performance from household waste recycling centre, 12%
 - (c) Performance from kerbside, 13.5%
 - (d) Performance from bring site, 1.5%
41. As with Options 1 and 2 (paragraphs 19 and 23), the same opportunity exists to increase recycling/composting over the duration of the contract.
42. Kerbside collection for dry recyclates would be the same as in Option 2. There would also be the introduction of a separate kitchen waste collection service, which would require wheeled bin containment as this would involve a fortnightly collection so adequate capacity would be needed. The performance highlighted above is again cautious and could, with appropriate marketing and promotion and enforcement, increase towards 70%.

Financial Implications

43. The overall financial benefits of the core service are the same as Option 2 involving a saving of between £100,000 and £300,000 p.a. after financing replacement recycling vehicles.
44. However, there would also be the additional cost of introducing a new kerbside collection for kitchen waste. This would be achieved through introducing a fortnightly collection based on a wheeled bin to all properties. The costs associated with this service would be:
- | | |
|---|--------------------|
| (a) Leasing of appropriate wheeled bin containers | £107,000 per annum |
| (b) Annual leasing costs for 3 x refuse collection vehicles | £ 80,700 per annum |
| (c) Annual operating costs for 3 x refuse collection vehicles | £ 90,000 per annum |
| (d) Annual staffing costs for 3 x refuse collection vehicles | £213,000 per annum |

Total **£490,000 per annum**

45. An additional marketing and publicity budget of £50,000 would be required as in Option 2 and to reach performance of 70%, an additional two Enforcement Officers would be required at a cost of approximately £50,000. The role of the Enforcement Officers would be to ensure that residents participate in the recycling schemes, placing materials out in the correct containers on the correct days, otherwise fixed penalty notices and ultimately prosecution would take place. The option of enforcement could, if desired, be applied to all the options. Overall therefore there is a net increase in cost of between £240,000 and £440,000 p.a.

Option 3: Annual Financial Implications

Item	Expenditure	
	Increase	Decrease
Financing New Recycling Vehicles/additional running costs	£150,000	
Marketing and Promotion	£50,000	
Enforcement Officers	£50,000	
Kitchen Waste Collection Costs	£490,000	
Changing Kerbside Recycling Arrangements		£300,000 - £500,000(i)
Overall Financial Impact	£240,00 to £440,000	

Issues

46. In this option there will be a change to the kerbside collection service, removing the separate collection of cans, plastic and textiles but adding card, which the public have requested for a number of years. The treatment process is more than capable of dealing with cans and plastics and will remove significantly more than would have been collected at the kerbside. These changes would therefore have to be included in a comprehensive Communications Strategy.
47. Provision of wheeled bin containment for food waste, which would be collected fortnightly.
48. Need to enforce waste policies to ensure residents participate in recycling and composting schemes.
49. Potential increase of waste collected as could divert food waste from home composting.
50. Would need to seriously consider alternate weekly collection as this option is likely to remove towards 50% of the waste from each household through a recycling and composting service. If this was considered, obviously savings could be achieved against the projected net increase in costs. The savings will be achieved by not requiring an additional fleet for kitchen waste collection as the existing refuse collection vehicles could be used one week for residual waste collection and the second week for kitchen waste collection, therefore not requiring an additional £490,000.
51. The MBT plant is more than capable of treating kitchen waste without it being separated, although it is recognised that the output material is not of the quality separate processing would produce.
52. Any significant change to collection arrangements, as Option 3 would be, would require serious and careful consideration by Members. Nationally, the Government are starting to move away from pushing incentives/penalty schemes and a number of local authorities have taken significant criticism over introducing fortnightly collections and are subsequently considering going back to weekly arrangements or have actually done so.

Other General Issues

53. In the Town Crier and at other events, the public have been informed that consultation will take place for waste collection. However, this commitment needs to be reviewed in light of the new contract. The MBT plant presents the opportunity for materials that are currently collected at the kerbside to be recycled through the treatment process. In addition, any proposals for change need to be considered alongside the MTFP and how affordable they are as the Council has already invested an additional £1 million per year for waste management. Therefore in reality, these two issues taken together have largely determined the options, with Option 2 providing improved performance and reducing the burden of waste management on the MTFP being recommended. However if through the procurement process, one of the other options available to the Council had been selected, then there would have been the need to consult with residents with regard to collection arrangements in order for the Council to meet its targets. Whilst a formal consultation is not being proposed, it is clear that there is a public appetite to see the Council collect cardboard at the kerbside, which has been taken into account and included in Options 2 and 3. Alongside the Recycling and Composting Strategy, a comprehensive Communications Strategy will be developed to inform and engage residents in the Making Waste Work campaign.
54. Wheeled bins could be introduced for residual waste collection at a cost of approximately £279,000 (financing of wheeled bins £147,000, two extra refuse collection vehicles and bin lifts £72,000 and £60,000 running costs). If Members wish to provide wheeled bins then the cost of £279,000 would need to be added to the financial implications already identified in the report for each option.
55. Although Option 3 relies on more stringent enforcement to achieve a higher level of performance, there is scope to employ greater levels of enforcement across all options and views are sought on the balance to be struck.
56. There is a need to increase the budget associated with marketing/publicity for waste. This budget needs to be in the region of £50,000 p.a. to ensure that the message is continually delivered, encouraging residents to recycle and compost. Best practice suggests £2.50 per household. The current recycling budget is approximately £57,000. With nearly 47,000 properties, budget should be approximately £117,000. The additional funding will be used to publicise whatever recycling scheme is adopted and used to engage with residents who currently do not use the kerbside recycling service. There are a number of best practice case studies of how participation rates can be increased using such techniques as door stepping and focus campaigns.

Conclusion

57. Current top quartile performance for recycling and composting 2006/07 combined is 38.4% against which the Council's current performance is 22.71%. While there are no statutory targets, the Waste Strategy for England 2007 sets a clear direction for where it expects Councils to be, at 40% by 2009/10 and 50% by 2020. The fact that in 10 years it is expected to get from 40% to 50% indicates that this is likely to be challenging for most local authorities. However, the Council's new Waste Disposal Contract will deliver 49% almost immediately from 2009/10 without changing current collection systems. This

effectively matches the 2020 target in the Waste Strategy for England 2007.

58. When considering LATS performance of the three options, it is clear from **Appendix 3** that all options fall below the allowed biodegradable waste to be landfilled. Any surplus LATS permits achieved through the new contract can be sold to other local authorities who require additional permits through the Landfill Allowance Trading Scheme. However there is very little difference between each option therefore any income generated would not be significantly different.
59. When comparing recycling and composting performance of each option (see **Appendix 4**) there is little difference between continuing with the existing recycling scheme and changing to Option 2, collecting card and removing cans, plastic and textiles. However, when kitchen waste is added, there is an additional 10 percentage points consistently added across each year.
60. This increased performance needs to be considered against the increased collection costs of approximately £500,000, which is not presently included in the MTFP.
61. Against this background and considering the various issues, Option 2 is the preferred option achieving up to 10% beyond the target for 2020 and allowing significant improvement in recycling and composting performance without too much change for residents and delivering savings of between £100,000 and £300,000. Recycling and composting will continue to improve year on year as the contractor finds markets for the output from the treatment process that in the early years will be landfilled.

Outcome of Consultation

62. As the options for recycling and composting are largely determined by the contract for waste disposal and the technology utilised, no specific consultation has taken place with residents with regard to the production of options for the Recycling and Composting Strategy. However significant representation has been made to the Council over the years by residents requesting the collection of cardboard separately at the kerbside. In formulating the options within the report, this has been taken into account and cardboard has been included as one of the materials to collect separately from the kerbside. If however one of the other contractors had been successful, then a different option would have had to be considered, which may have required consultation with residents.
63. A detailed Communications Strategy is being developed, which is aimed at informing the public of the benefits of the new contract and why the changes to the existing kerbside collection arrangements are required once the strategy is agreed. This Communications Strategy will engage residents in the Making Waste Work campaign, which is about reducing, reusing and recycling waste they produce.
64. Economy and Environment Scrutiny are about to commence a Task and Finish Review of Waste Minimisation focusing on the Reduce and Reuse end of the Making Waste Work campaign. This presents an ideal opportunity for the Council to engage residents in the waste debate.