



# A Plan for Waste Management

# Waste Disposal Authority Action Plan 2012 – 2014

# Surrey County Council

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# Section 1 Introduction

#### **Purpose of document**

- 1.1 This document details how Surrey County Council will contribute to the delivery of the revised strategy of the Surrey Waste Partnership September 2010, 'A Plan for Waste Management', by way of an action plan. The action plan highlights intended projects or initiatives, attached costs, timeframes and potential to work in conjunction with other Surrey authorities in order to achieve targets defined within the strategy to deliver efficient and effective waste management in the county.
- 1.2 The Plan for Waste Management aims to present a sustainable future for Surrey through efficient management of resources. The vision for the county is to reach a 70% recycling, composting and reuse target by 2013/14 and to ultimately exceed this target by 2026. The authorities within the Surrey Waste Partnership are committed to delivering lasting and cost effective waste management solutions within the county to protect present and future generations.

#### **Surrey Waste Partnership**

- 1.3 The Joint Municipal Waste Management Strategy (JMWMS) was produced by the Surrey Local Government Association (SLGA) in 2006. The SLGA represents the 11 district and borough councils and the county council and is a forum to improve services across Surrey. The Surrey Waste Partnership (SWP), formerly the Waste Members Group of the SLGA, produced a revised strategy- A Plan for Waste Management the targets of which are addressed in this document. Officers and members across the Partnership work collaboratively to deliver effective waste management solutions.
- 1.4 Delivering the Plan for Waste Management is a combined effort from the various districts and boroughs along with the county, all of whom have specific functions. The district and borough councils are Waste Collection Authorities (WCAs) and responsible for collecting household waste. The WCAs deliver recycling and composting schemes based on the separation of suitable materials of household waste collected at the kerbside of properties along with general waste. Recyclable materials can also be deposited at recycling facilities which are maintained by the appropriate WCA. General non recyclable, or residual waste, is passed onto the county for disposal. Recyclable or compostable materials are either sent to the county or directly to appropriate contractors depending on local arrangements and facilities.
- 1.5 Surrey County Council is the Waste Disposal Authority (WDA) for Surrey. This entails managing household waste received from the WCAs and the provision of facilities for its subsequent treatment and disposal. The WDA provide and maintain Community Recycling Centres (CRCs) which residents can use to deposit both materials which are currently collected from the kerbside and additional, often bulkier items. The county council is also the Waste Planning Authority for Surrey which involves identifying and allocating land suitable for the development of waste management facilities.
- 1.6 The various component organisations of the Surrey Waste Partnership each have a role to play in delivering waste management solutions that are both user friendly and cost effective.

# Section 2 Strategic Direction

2.1 National waste legislation plays a major part in the strategic direction of the Surrey Waste Partnership, most notably The Waste (England and Wales) Regulations 2011, which ratifies the waste hierarchy, (below) the Government Waste Policy Review 2011 and the Landfill Directive. The waste hierarchy provides a range of options based on impact when managing waste, with top priority given to waste prevention. Disposal, at the bottom of the pyramid, is the least favoured option as landfill is both costly and unsustainable.

## Fig 1 The Waste Hierarchy 2011



- 2.2 The Landfill Directive, an element of legislation that supports the waste hierarchy, requires biodegradable waste to either be pre-treated or diverted from landfill altogether. An economic instrument that enables the delivery of certain legislation is the Landfill Tax. The Landfill Tax, which stands at £56 per tonne in 2010/11, will increase to £80 per tonne in 2014/15 in £8 per tonne annual increments. With rising costs of landfill other methods of sustainable waste management need to be utilised and the waste hierarchy offers direction on ways in which to approach this. National legislation supports the use of Energy from Waste facilities as a means of avoiding landfill. Recent technological advances such as anaerobic digestion treat biodegradable waste (eg. food) and simultaneously produce energy. This is therefore doubly advantageous.
- 2.3 The Surrey Waste Partnership has committed to five key policies (see Table 1) within the strategy to address the existing and future challenges of sustainable waste management in the county.
- 2.4 A common theme across the policies is the commitment to joint working across the Partnership in order to demonstrate national legislation and directives aimed at carbon reduction and mitigation, resource efficiency and other aspects of sustainable waste management.

Table 1 A Plan for Waste Management Policy Actions

Polic	ies
Policy 1) We will work in partnership with each other and other stakeholders to promote sustainable waste and resources management in Surrey, and support national and regional policies for carbon reduction and mitigation as well as net self-sufficiency Policy 3) We will vigorously pursue the prevention of waste to achieve continued reduction in waste arisings, through common public messages, lobbying retailers and enforcement activities	Policy 2) We will work in partnership to develop and deliver a coordinated waste education and awareness programme, which focuses on all aspects of sustainable waste management, in line with the priorities of the waste hierarchy Policy 4) We will commit significant efforts and resources to achieve an aspirational household recycling and composting targets of 70% by 2013/14
Policy 5) We will adhere to the waste hierarchy, with residual waste treatment preferred to landfill. Recovery and disposal facilities will be delivered to ensure compliance with the Landfill Directive. We will restrict the use of landfill to 0% by 2013/14	

2.5 The action plan details how Surrey County Council intends to adhere to national waste policies; contribute to targets established by the Surrey Waste Partnership; and continue to improve services within Surrey, working in cooperation with other authorities of the Partnership wherever possible. The following section illustrates performance across the county in 2010/11.

# Section 3 Surrey County Council Targets

- 4.1 'A Plan for Waste Management' sets out a series of targets for Surrey's local authorities to achieve by 2013/14:
  - 1. A reduction in household waste of 30,000 tonnes
  - 2. All districts and boroughs collectively achieve a recycling rate of 60%
  - 3. Community Recycling Centres achieve a recycling rate of 70%
  - 4. An innovation gap of 7% of total waste needs to be addressed
  - 4.2 In 2010 SCC developed its first action plan to deliver the revised joint strategy. Section 4 updates on progress and existing actions. Section 5 (2012 action plan) sets out the revised set of actions that SCC will carry out in order to support the delivery of these targets.
  - 4.3 In addition to achieving targets a key objective for Surrey County Council in the activities detailed in this Action Plan is to improve the cost-effectiveness of waste management in Surrey. A key consideration for this is the significant increases that are occurring in waste disposal costs as a result of the Landfill Tax Escalator. The AEA report, 'Surrey Waste Partnership – Improving Joint Working Project', detailed the significant costs facing waste management in

Surrey and recommended a number of actions to avoid these costs. Surrey County Council is working with the other authorities in the Surrey Waste Partnership to pursue many of these recommendations. The County Council is also working with a grouping of waste disposal authorities (South East 7) to reduce waste disposal costs too.

# Section 4 Progress to date

## Actions since 2010 Action Plan

#### Reduce and Reuse Solution

- 4.4 A number of behaviour change initiatives have been targeted at residents with the aim of reducing the amount of waste they produce. These have included:
  - Love Food Surrey campaigns which encourage residents to waste less food. These are integrated marketing campaigns which include advertising, PR, direct marketing, events and use of digital channels.
  - Encouraging home composting by providing subsidised home composting units and promotion of the scheme via marketing campaigns and direct engagement.
  - Facilitating the establishment of the Surrey Reuse Network. This is a network of six charity enterprises that collect donated good quality furniture and kitchen appliances and sell them at affordable prices.
  - Establishing a relationship with Go Real, a social enterprise that provides a range of expert advice and services to parents who wish to try reusable nappies.
- 4.5 SCC's Reduce and Reuse Solution also includes targeting other key audiences which can act as catalysts for household waste reduction. Projects in this area have included:
  - A number of communication activities to promote services available to businesses, including events, visits and direct marketing. A significant part of this is the Surrey Green Steps website which provides businesses with information and tools to help them manage their waste in a more sustainable manner, identify savings that can be made as a result of this, and advice on how to comply with waste legislation.
  - Provision of a range of waste related support and advice for schools. This has included providing teaching resources and on the ground support such as running lessons and assemblies.
  - Supporting community groups to carry out waste reduction activities by providing small grants and access to Public Liability insurance.

#### **Recycling Solution**

- 4.6 SCC's Recycling Solution set out to increase recycling by a) making improvements and changes to community recycling centres, b) taking steps to increase collection of organic wastes and c) facilitating the increased collection of dry recyclables by district and borough councils. Since 2010 the following actions have been carried out.
  - Completed redevelopment of Martyrs Lane CRC

- Commenced redevelopment of Witley and Leatherhead CRCs
- Implemented an electronic van permit scheme at CRCs
- Implemented carpet recycling/recovery at CRCs
- Undertaken trials of Mattress recycling at CRCs
- Increased capture of recyclable materials at CRCs with extra staffing
- Increased the number of districts/ boroughs collecting food waste from 6 to 9 with remaining two councils scheduled to roll out food waste collection in 2012.
- Commenced work on the development of improved recycling bulking facilities at Slyfield, Guildford and at Earlswood in partnership with Reigate and Banstead Borough Council

#### Development of an Eco Park at Charlton Lane, Shepperton

4.7 A key part of the WDA Action Plan is the development of an Eco Park at Charlton Lane, Shepperton comprising a Batch Oxidation Gasification plant, anaerobic digestion facility and recyclable materials bulking facility. Since 2010 a planning application has been prepared and submitted and planning consent has been obtained for the development of an Eco Park.

## Current Performance

3.1 Table 2 gives an overall picture of Surrey's performance as a county leading up to 2010/11. The total household waste collected by the WCAs and through the CRCs across the county was 512,183 tonnes of which 46.3% was extracted for recycling, composting or reuse. A further 20.7% was utilised for energy recovery with less than a third being sent to landfill. This compares favourably with the situation in 2007/8 when nearly two thirds of waste was sent to landfill. During this period the total waste produced fell by over 75,700 tonnes, a drop of 12.9% in three years.

Year	Amount of total household waste (tonnes)	Proportion of waste reused, recycled or composted	Proportion of waste used for energy recovery	Proportion of waste landfilled
2007/08	587,962	35.1%	0.8%	64.1%
2008/09	534,327	40.8%	8.6%	50.6%
2009/10	523,835	45.6%	16.2%	38.2%
2010/11	512,183	46.3%	20.7%	33.0%

#### Table 2 Overall performance of Surrey

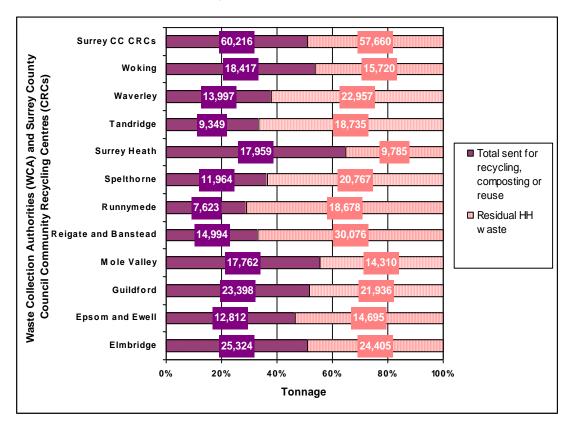
3.2 Table 3 shows Surrey's performance compared to the English average. Waste collected per head in Surrey decreased by 14% between 2007/8 and 2010/11, whilst the average for all waste disposal authorities in England dropped by 7%. This means that Surrey has moved from below average to above average performance. Recycling rates in Surrey have also increased by 11% whilst England as a whole has improved by 6%. This demonstrates that Surrey has improved rapidly compared to other authorities and now has above average performance for waste reduction and recycling.

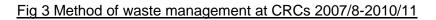
#### Table 3 Comparative performance

	Waste collection kg per head			waste reused, composted
Year	Surrey	England average	Surrey	England average
2007/08	542	501	35%	35%
2008/09	491	485	41%	38%
2009/10	477	473	46%	40%
2010/11	465	468	46%	41%

3.3 In terms of the County Council performance the waste collected at the Community Recycling Centres (CRCs) and in each district and borough is detailed in Fig 2 along with the amounts recycled, composted or reused. Surrey CC recycled 60,216 tonnes of waste at its CRCs. In addition Surrey CC managed the 212,064 tonnes of residual waste collected by the districts and borough councils as well as a further 57,660 tonnes of residual waste collected at CRCs. This waste was either utilised for energy recovery or was sent direct to landfill. Fig 3 shows how the total amounts of waste handled at the CRCs has decreased over time. The proportion of waste sent for recycling, reuse or composting has increased over the same period.

Fig 2 Household waste collected and method of waste management by Waste Collection Authorities and Surrey CC CRCs 2010/11





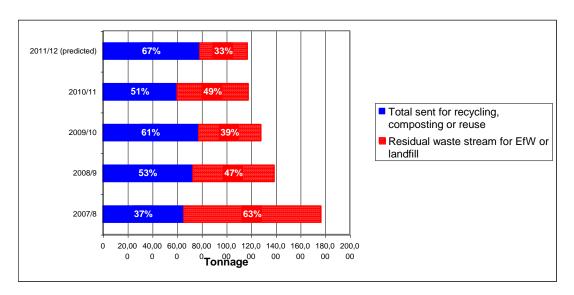


Table 3 Surrey County Council CRC's performance 2010/11

	Number of nouseholds	Total recycled waste-tonnes	Total recycled waste-percentage (of total waste)	Total household waste-tonnes	Number of Community Recycling Centres
4	472,380	60,216	51%	117,876	15

- 3.3 Table 3 give a summary of performance at the CRCs in 2010/11. Table 4 shows how much of each material is currently collected at the CRCs along with how it is managed. It should be noted that there has been a significant boost in recycling in 2011/12 on the 2010/11 levels due to the introduction of a number of initiatives.
- 3.4 While recycling, reuse, composting and energy recovery are recognisable techniques the additional method of 'material recovery' is also included. Material recovery indicates the sorting of a specific material for its onward recovery. In the table below the major example of material recovery is creating a separate wood stream for the purpose of energy recovery at a Biomass Plant. Material recovery is the preferred route as the use of a Biomass Plant offers significant advantages over the use of an Energy from Waste Plant. This provides some justification for the additional efforts in sorting the waste stream and thus it is felt materials recovery should be considered as a beneficial method of waste management.

	Current pe	rformance ANN	IUALISED (ba	ased on Apr-	Sep 2011)
	Amounts collected	% of total household waste	Recycling	Material Recovery	Energy Recovery/ Disposal
Residual / black bag	25,898.09	22.14%			25,898.09
paper/card	6,866.15	5.87%	6,866.15		
rigid plastic	2,098.45	1.79%	2,098.45		
textiles	1,460.18	1.25%	1,460.18		
wood	17,225.01	14.72%	8,000.00	9,225.00	
carpet	3,560.88	3.04%		3,560.88	
furniture	508.97	0.44%	508.97		
rubble/bricks*	19,337.53	16.53%	19,337.53		
other non-comb	968.46	0.83%	968.46		
glass	1,101.88	0.94%	1,101.88		
metal	6,668.13	5.70%	6,668.13		
garden waste	42,643.65	36.45%	42,643.65		
white goods	822.64	0.70%	822.64		
domestic appliances	1,194.97	1.02%	1,194.97		
VDUs	1,906.34	1.63%	1,906.34		
small mixed	3,133.59	2.68%	3,133.59		
fluorescent tubes	17.44	0.01%	17.44		
oil	168.63	0.14%	168.63		
lead acid	151.55	0.13%	151.55		
batteries	79.65	0.07%			79.65
asbestos	191.86	0.16%			191.86
other	325.56	0.28%			325.56
HOUSEHOLD WASTE	116,992.06		66.42%	10.93%	22.65%
TOTAL WASTE (inc. rubble)	136,329.59		71.19%	9.38%	19.43%

## Table 4 Materials currently managed at Surrey CC Community Recycling Centres

\*not included in household waste data

- 3.5 It should be noted that rubble and hardcore are not considered household waste and thus cannot contribute to the household waste recycling targets. However, rubble and hardcore form a significant part of the waste brought to CRCs by residents. Table 4 above provides a summary of the amounts of recycling for those materials that count as household waste as well as the overall recycling rate for all materials entering the CRCs.
- 3.6 From Table 4 it can be seen that the four major waste streams at CRCs are:
  - Garden waste (42,643 tonnes)
  - Residual / black bag (25,898 tonnes)
  - Rubble and hardcore (19,337 tonnes)
  - Wood (17,225 tonnes)

These four streams makeup over three quarters of all waste taken to CRCs. Of the four, garden waste, rubble and wood are collected separately for either recycling or material recovery. However, only garden waste and recycled wood make a contribution to the household waste recycling rate as rubble and 'material recovery' are excluded from the definition of household waste recycling.

# Section 5 2012 Action Plan

- 5.1 Building on the 2010 Action Plan this section details what projects and initiatives Surrey County Council intend to deliver in 2012/13 to ensure that targets for 2013/14 are met in line with A Plan for Waste Management. The challenging nature of the targets means that all significant initiatives need to be operating by 1<sup>st</sup> April 2013 if the targets are to be met. The elements of the key plans listed in the table in section 4 will be detailed under the broad target areas they address and what their contributions to the Council's targets will be.
- 5.2 Addressing the carbon impacts of our activities must be a key consideration of all involved in the Surrey Waste Partnership (SWP). However, Central Government is considering how best to monitor and determine these impacts. The County Council has committed to being part of this process and are also involved in projects at a national level.
- 5.3 Driving down waste generation is a key goal of both the SWP's Plan for Waste Management and the County Council's targets. Reducing the tonnages of waste will help to limit both the costs of managing this waste along with the environmental impacts resulting from its management. There are a number of approaches that can help to minimise waste:
  - Technological
  - Behavioural e.g. changing attitudes towards waste
  - Legal i.e. removing non-household waste

The projects detailed in this Action Plan all utilise one of these approaches.

- 5.4 Achieving the waste recycling and composting targets is a key area of work particularly as they relate to well publicised National Indicators. The County Council has a number of challenges around boosting recycling that are addressed in this Action Plan.
  - Increasing recycling at the Community Recycling Centres (CRCs)
  - Developing additional recycling infrastructure to facilitate the WCAs to boost their recycling rates.
  - Contributing to the development of countywide recycling schemes on specific materials.
  - Developing financial incentives for additional recycling.

Among all of these challenges costs must also be borne in mind. As recycling rates increase so the marginal costs of additional recycling will also increase. This combined with carbon impacts mean that the costs and benefits of new recycling schemes will have to be considered particularly carefully.

5.5 The County Council also has to manage the residual household waste in Surrey both from the WCAs and that collected at the CRCs. There is a clear policy around boosting the recovery of value from this waste. Recovery can be boosted by applying a waste management technology to the residual waste. Recovery can also take place by separating out particular waste materials that lend themselves to a recovery process. This latter method has some parallels to recycling in the way that materials have to be separated.

# Action Plan: 2012 – 2014

No.	Action	Completion Date	Narrative	Possible partners	Outcomes
Car	bon reduction				
1	Carbon impacts of waste projects	2012	Utilise ERM tool to determine carbon generation issues around waste activities	WRAP WCAs	Carbon reduction becomes a central consideration in project development.
Was	ste prevention				
2	Love Food Surrey Campaign	End 2012/13	Stimulate change in behaviour that results in Surrey residents throwing away less food waste	WCAs	Reductions in the amounts of food waste left in the residual waste stream. May also lead to improved participation in food waste collections.
3	Home Composting Campaign	End 2012/13	Increase the number of Surrey households that compost at home	WCAs	Reductions in the amounts of garden waste entering the waste stream.
4	Junk Mail Reduction campaign	2012/13	Reduce the amounts of Junk Mail that Surrey residents receive	WCAs	Reduce the amounts of paper entering the waste stream.
5	Dewatering of street sweepings	2012	Provide dewatering equipment for street sweepings	WCAs Sita	Reduce the amounts of street sweepings requiring onward waste management. <b>7,000 tpa reduction if</b> utilised Surreywide.
6	Number Plate Recognition Project	2012/13	To use technology to reduce the amounts of non-household waste or waste from outside Surrey entering the CRCs.	Sita	Reduce the amounts of non-authorised wastes entering the household waste stream.

No.	Action	Completion Date	Narrative	Possible partners	Outcomes
Rec	ycling, reuse and composti	ng			
7	Develop the Surrey Reuse Network (SRN)	End 2012/13	To increase the amounts of furniture and white goods reused in the County.	WCAs SRN members and other furniture reuse organisations	Reductions in the amounts of furniture and white goods entering the waste stream.
8	Funding Model for additional WCA recycling	2012	<ul> <li>The development of a funding model that provides funding for:</li> <li>New waste initiatives</li> <li>Rewards for improved performance</li> <li>Continued support for food waste schemes</li> </ul>	WCAs	Support WCAs to improve recycling rates up to the Strategy targets. Contributes to the potential <b>62,400 tpa</b> <b>increase in WCA recycling.</b>
9	Improve existing transfer stations to provide additional facilities for WCA collected recyclables	Construction starts 2012	Redevelopment of transfer stations at: • Leatherhead • Slyfield • Earlswood	WCAs	Support WCAs to improve recycling rates up to the Strategy targets. Contributes to the potential <b>62,400 tpa</b> <b>increase in WCA recycling</b> .
10	<ul> <li>Support SWP project proposals, notably:</li> <li>Participation in food waste collections</li> <li>Disposable nappies recycling</li> </ul>	2012/13	To support joint projects being developed by the SWP that help to achieve the Action Plans of individual WCAs.	SWP / WCAs	While most projects will help achieve the figures relating to improved WCA performance in Action 8 <b>nappies</b> would contribute an additional 9,500 tpa.
11	Composting of street sweepings	2012/13	To compost residues of street sweepings once dewatered	WCAs Sita	Compost the remainder of street sweepings removing the need for landfill. <b>7,000 tpa diverted to compost</b> <b>process.</b>
12	<ul> <li>Further redevelopment of CRCs at:</li> <li>Witley</li> <li>Leatherhead</li> <li>Slyfield</li> </ul>	2012-2014	To increase storage capacity and improve the efficiency of site use. Witley and Leatherhead ongoing and Slyfield at feasibility stage.	Sita	To ensure that CRCs are able to maintain and improve recycling performance.

No.	Action	Completion Date	Narrative	Possible partners	Outcomes				
Rec	ecycling, reuse and composting cont.								
13	CRC development – improve recycling rates by targeting the residual waste stream at CRCs	2012/13	To identify and implement strategies to improve the recycling rate at CRCs by providing additional resources to encourage more recycling of the residual 'black bag' waste stream. A trial has been completed at two sites; Charlton Lane and Slyfield, that has demonstrated the potential of the project. Further data analysis of individual site performance has helped to identify where these resources would be best directed on a site-by-site basis.	Sita	Improvements in staff numbers have the potential to raise recycling rates by 8%. Additional 8,000 tpa recycled at CRCs.				
14	Develop scheme for recycling mattresses at CRCs	2012	To separate and process mattresses taken to CRCs into fibres and metal. Currently the outlets for mattress disposal are very limited, this project will help to boost recycling while solving a logistical problem. Metal (45%) – recycled Fibres (55%) – recovered	Sita	The project will potentially divert 4,600 tonnes from landfill (based on experiences from (Medway UA) with <b>an additional 2,070 tpa for recycling and 2,530 tpa for energy recovery.</b>				
15	Small WEEE recycling	2012	Introduce 25 small WEEE banks on trial basis and compare to performance of kerbside WEEE collection schemes. Further roll-out of scheme dependent on trial results.	WCAs	Increase the capture of WEEE for recycling.				

No.	Action	Completion Date	Narrative	Possible partners	Outcomes
Rec	overy and disposal				
16	Development of Eco Park	Construction starts 2012	To develop facilities to divert as much waste as possible from landfill and produce renewable energy from both food waste and residual waste	Sita	Anaerobic digester will manage existing food waste collected, Gasification will provide an additional recovery of 60,000 tpa.
17	CRC development – improved diversion for recovery rates	2012/13	To identify and implement strategies to increase the amounts of waste diverted for recovery	Sita	To reduce/remove the reliance on landfill as the disposal option for some materials. Also to ensure that some benefit is gained from waste materials where recycling is not feasible.
18	Improve existing transfer stations to provide additional facilities for WCA collected refuse	Construction starts 2012	Improved arrangements for the acceptance of residual waste at: • Leatherhead • Slyfield • Earlswood	WCAs	Support WCAs to provide efficient refuse collection services and to provide access to recovery facilities such as the Eco Park.

# Summary of action plan targets

		2008/9 situation	2013/14 target
Waste Prevention	Total Waste (tonnes)	534,327	504,327
Recycling, reuse and composting	Total recycling (tonnes)	218,005 (41%)	353,029 (70%)
Recovery and disposal	Total residual waste (tonnes)	316,322	151,298*

\*Zero waste to landfill