



Department
for Environment
Food & Rural Affairs

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Waste Management Plan for England

December 2013

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Dan Rogerson

Parliamentary Under Secretary of State
for water, forestry, rural affairs and
resource management

Ministerial Foreword

This document sets out where we are now in terms of the waste we generate in England and how we manage those materials. It records some impressive progress since the Waste Strategy for England 2007. We recycle more as householders than we did in the past. Businesses generate much less waste and reuse or recycle more than before. However, we need to do more as we rebalance our economy to achieve strong, lasting growth and widely shared prosperity. This means ensuring that we use the resources we have as efficiently as possible, minimising the impact of waste on our country and supporting the industries of the future.

Many of us would agree that our goals for waste must start with the vision of doing more with less. That means businesses creating more goods and services but using fewer resources in doing so. We had many informed and thoughtful contributions to the development of our Waste Prevention Programme for England.

Where waste is unavoidably created, we want most of it to be reused or recycled. Products will be designed for repair, reuse and recycling and local authorities and waste companies will make it easy for us all to reuse and recycle goods. All of this will create a thriving resource management industry providing high quality feedstocks in place of virgin raw materials.

The Government will set the conditions that will allow businesses, local authorities, the waste sector, Government and every one of us as consumers and householders to make the changes necessary.

We also need more joint working. We already see many local authorities co-operating to save money and provide better services. There are opportunities too for innovative ways of providing waste services to small and medium-sized enterprises.

This Plan explains the measures that we have already in hand, starting with the Government's waste review in 2011. Since then, we have continued the Courtauld Commitment setting new targets to reduce waste from the grocery sector by 1.1 million tonnes by 2015 with potential savings to industry and consumers of £1.6 billion. We have set new packaging targets, for example to increase recycling of plastic packaging to 42% by 2017. We are regulating to improve quality at the Materials Recycling Facilities that deal with much of the waste we generate. High quality recyclates will improve the market for such materials to replace virgin raw materials.

Much has been done but much remains to be done if we are to prevent and manage waste to support the growth of our economy and to continue to protect our environment. This

Plan sets out where we are now and the policies we currently have in place to help move us towards this vision. It is not however an exhaustive strategy and we will continue to monitor the effectiveness of our policies on waste and resource management. Where necessary we will adjust them to protect the environment and human health.



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Waste Management Plan for England

The production of waste is a natural result of economic and social activity by businesses and consumers, and has been throughout human history. There are costs and benefits involved – the resources used in the production process and the benefits gained from consuming goods and services. The key is to ensure that the value we extract from resources is not exceeded by the costs of using them, and therefore that we do not produce excessive amounts of waste. It is also important to make sure that waste is optimally managed, so that the costs to society of dealing with waste, including the environmental costs, are minimised.

The way in which waste is managed has changed dramatically over the last twenty years in the UK, as have attitudes towards waste management. There has been a major decrease in waste being disposed of to landfill and an increase in recycling. The key aim of the waste management plan for England is to set out our work towards a zero waste economy as part of the transition to a sustainable economy. In particular, this means using the “waste hierarchy” (waste prevention, re-use, recycling, recovery and finally disposal as a last option) as a guide to sustainable waste management.

Over the past few years, there has been significant progress with waste and resource management in England. Recycling and composting of household waste has increased to 43% and business recycling rates have increased to 52%. Local authorities, who cover all household waste and some commercial and industrial waste, have reduced the amount of waste they send to landfill by about 60% since 2000.

This progress has been driven by a range of policies. The landfill tax escalator has created a strong incentive to divert waste from landfill. Additional funding for local authorities, including through the private finance initiative, has led to the development of new waste treatment facilities. National planning policy seeks to enable local authorities to put planning strategies in place through their local plans which shape the type of waste facilities in their areas and where they should go. All of these measures are helping to drive waste to be managed further up the waste hierarchy.

The [Government Review of Waste Policy in England 2011](https://www.gov.uk/government/publications/government-review-of-waste-policy-in-england-2011)¹ (hereafter referred to as the Waste Review 2011) evaluated waste management policies for England and their delivery to ensure that the policies were fit for purpose, meeting society’s expectations while reflecting the Government’s ambitions for a zero waste economy.

This Waste Management Plan for England and associated documents, combined with equivalent plans being produced by the devolved administrations in Scotland, Wales and Northern Ireland, and Gibraltar, together with local authorities’ local waste management

¹ <https://www.gov.uk/government/publications/government-review-of-waste-policy-in-england-2011>

plans will fulfil the requirement in Article 28 of the revised Waste Framework Directive² (WFD). Article 28 requires that Member States ensure that their competent authorities establish one or more waste management plans covering all of their territory.

The Waste Management Plan for England is a high level document which is non-site specific. It provides an analysis of the current waste management situation in England, and evaluates how it will support implementation of the objectives and provisions of the revised WFD. National planning policy on waste is currently set out in Planning Policy Statement 10 '[Planning for Sustainable Waste Management](#)'³. It provides the planning framework to enable local authorities to put forward, through local waste management plans, strategies that identify sites and areas suitable for new or enhanced facilities to meet the waste management needs of their areas. This policy is currently being updated and has been subject to public consultation⁴. Once it has been finalised, the updated policy will replace Planning Policy Statement 10 as the national planning policy for sustainable waste management.

The Waste Management Plan for England is subject to review as provided for in Article 30 of the revised WFD.

² Directive 2008/98/EC.

³ www.gov.uk/government/publications/planning-for-sustainable-waste-management-planning-policy-statement-10

⁴ www.gov.uk/government/consultations/updated-national-waste-planning-policy-planning-for-sustainable-waste-management

Objectives and Scope of the Plan

This Plan supersedes the previous waste management plan for England⁵. It meets the requirements in Article 28 of the revised WFD which are broader than the requirements of Article 7 in the preceding WFD. This Plan provides an overview of waste management in England and fulfils the revised WFD Article 28 mandatory requirements, and other required content as set out in Schedule 1 to the Waste (England and Wales) Regulations 2011.⁶

The mandatory requirements of Article 28 of the revised WFD specify that the Plan should contain the following information:

- An analysis of the current waste management situation in the geographical entity concerned, as well as the measures to be taken to improve environmentally sound preparing for re-use, recycling, recovery and disposal of waste and an evaluation of how the plan will support the implementation of the objectives and provisions of the revised WFD.
- The type, quantity and source of waste generated within the territory, the waste likely to be shipped from or to the national territory, and an evaluation of the development of waste streams in the future;
- Existing waste collection schemes and major disposal and recovery installations, including any special arrangements for waste oils, hazardous waste or waste streams addressed by specific Community legislation;
- An assessment of the need for new collection schemes, the closure of existing waste installations, additional waste installation infrastructure in accordance with Article 16 (on the proximity principle), and, if necessary, the investments related thereto;
- Sufficient information on the location criteria for site identification and on the capacity of future disposal or major recovery installations, if necessary; and
- General waste management policies, including planned waste management technologies and methods, or policies for waste posing specific management problems.

In addition, Schedule 1 to the Waste (England and Wales) Regulations 2011 sets out other obligations for the Plan which have been transposed from the revised WFD. These other obligations include:

- In pursuance of the objectives and measures in Directive 94/62/EC (on packaging and packaging waste), a chapter on the management of packaging and packaging waste, including measures taken pursuant to Articles 4 and 5 of that Directive.
- Measures to promote high quality recycling including the setting up of separate collections of waste where technically, environmentally and economically practicable and appropriate to meet the necessary quality standards for the relevant recycling sectors.

⁵ The Waste Strategy 2007

⁶ SI 2011/988, as amended by SI 2012/1889.

- As appropriate, measures to encourage the separate collection of bio-waste with a view to the composting and digestion of bio-waste.
- As appropriate, measures to be taken to promote the re-use of products and preparing for re-use activities, in particular—
 - (a) measures to encourage the establishment and support of re-use and repair networks;
 - (b) the use of economic instruments;
 - (c) the use of procurement criteria; and
 - (d) the setting of quantitative objectives.
- Measures to be taken to ensure that by 2020
 - (a) at least 50% by weight of waste from households is prepared for re-use or recycled.
 - (b) at least 70% by weight of construction and demolition waste⁷ is subjected to material recovery.

⁷ This is construction and demolition waste excluding hazardous waste and naturally occurring material falling within code 17 05 04 in Schedule 1 to the List of Wastes (England) Regulations 2005 (SI 2005/895).

The Waste Management Plan and the objectives of the Waste Framework Directive

There are comprehensive waste management policies in England which taken together deliver the objectives of the revised Waste Framework Directive: to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use. It is not, therefore, the intention of the Plan to introduce new policies or to change the landscape of how waste is managed in England. Its core aim is to bring current waste management policies under the umbrella of one national plan.

The Waste Review 2011 details the main policies which fall under the Waste Management Plan for England umbrella. In addition, the following documents contain significant policies that contribute to the Waste Management Plan for England:-

- Anaerobic Digestion Strategy and Action Plan 2011;
- the UK Plan for Shipments of Wastes;
- the Government's Strategy for improved hazardous waste treatment in England;
- the National Policy Statements for hazardous waste and for renewable energy Infrastructure (in so far as it relates to energy from waste); and
- the Quality Action Plan for recyclates.

In preparing the Plan we have also drawn on a number of other sources which are referenced in this document.

National waste planning policy is an important part of delivering the objectives of the revised Waste Framework Directive. Both current planning policy in Planning Policy Statement 10, and its proposed update, contain planning policies which should be taken into account by local authorities :-

- in assessing the suitability of areas and sites for waste development within local plans
- in determining planning applications.

Within the Plan, the chapter on the Current Waste Management Situation in England summarises how we apply the Waste Hierarchy in England. This chapter also explains how waste management is regulated by the Environment Agency to prevent harm to human health and the environment.

The chapter on waste arisings summarises information on the extent, nature and sources of waste which is necessary to underpin decisions on waste management. Subsequent chapters provide further detail on actions to deliver the objectives of the Directive by

promoting better quality recycling and, where required, new collections and infrastructure. Finally the Plan considers the future development of waste streams in the light of current policies.

The Plan – like the Waste Review 2011 - recognises that the objectives of the Directive cannot be delivered by Government alone. It requires action by businesses, consumers, householders and local authorities. The policies summarised in the Plan provide a framework for action by such groups.

At the local authority level, waste planning authorities (county and unitary authorities in England) are responsible for producing local waste management plans that cover the land use planning aspect of waste management for their areas. Waste planning authorities should have regard to this Plan - alongside detailed national planning policy on waste in Planning Policy Statement 10 and its proposed update and other planning policy contained in the [National Planning Policy Framework](#)⁸, in drawing up, or revising, their existing local waste management plans.

Geographic scope of the plan

This plan covers England as well as the sea adjacent to England as far as the seaward boundary of the territorial sea.

Devolved Administrations

As waste is a devolved matter, devolved administrations and Gibraltar are responsible for producing a Plan for their areas. Together with the Waste Management Plan for England those Plans will collectively cover the geographical territory of the United Kingdom, meeting the requirements of the UK as a Member State under Article 28(1) of the revised Waste Framework Directive.

⁸ <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

Wastes covered by the Plan

The legal definition of waste is set out in the revised Waste Framework Directive. It is defined as “any substance or object which the holder discards or intends or is required to discard”.

Within this definition, waste streams are employed to categorise particular types of waste which may be produced by individuals or organisations. Primarily these are:

1. Municipal waste – household waste and commercial waste similar to household waste
2. Industrial (including agricultural) and commercial waste
3. Construction and demolition waste
4. Hazardous waste

The Plan does not apply to wastes that are excluded from the scope of the revised Waste Framework Directive (by Article 2 of the Directive). For example, radioactive waste and, to the extent that they are covered by other Community legislation, waste waters, are outside the scope of the revised Waste Framework Directive and are, therefore, not covered by this Plan.

Strategic Environmental Assessment (SEA)

What is SEA?

The Environmental Assessment of Plans and Programmes Regulations 2004⁹ introduced a requirement for an SEA to be produced for a number of statutory plans and programmes, including waste management plans.

The SEA process aims to identify the main environmental implications of a plan, and key alternatives, before it is adopted, and its provisions are implemented. This allows the environmental impacts of proposals to be identified and addressed whilst at the development stage, enabling consideration of possible alternatives in advance of implementation. SEA therefore facilitates the development of plans that take account of the environmental impacts (positive and negative), allowing full consideration of them, and identifying options for mitigation of impacts where they have the potential to arise.

*'A Strategic Environmental Assessment (SEA) is intended to increase the consideration of environmental issues during decision making related to strategic documents such as plans, programmes and strategies. The SEA identifies the significant environmental effects that are likely to result from the implementation of the plan or alternative approaches to the plan.'*¹⁰

The Environmental Report accompanying the Plan appraises the significant environmental impacts of the waste management plan. In doing so, the document complies with the requirements of the Environmental Assessment of Plans and Programmes Regulations 2004¹¹.

The individual elements making up this Plan have been subject to public consultation and where relevant, an impact assessment has been carried out before the policy has been implemented. At the time they were implemented, the policies did not constitute a Waste Management Plan for England and were not, therefore, subject to an SEA process. Given that the individual policies do now constitute a Plan document which falls within the requirements of the SEA directive, an SEA has been undertaken which has looked at the Plan as a whole and understands the significant environmental impacts arising from it.

Environmental Report Summary

In the context of the Environmental Report, 'the Plan' refers to the Waste Management Plan for England excluding national planning policy on waste, which has been subject to separate consideration under the 2004 SEA Regulations.

⁹ SI 2004/1633

¹⁰ Environment Agency available at: <http://www.environment-agency.gov.uk/research/policy/32901.aspx>

¹¹ A Practical Guide to the Strategic Environmental Assessment Directive. Available at: <https://www.gov.uk/government/publications/strategic-environmental-assessment-directive-guidance>

Given that the Plan under assessment here does not include the spatial distribution of facilities and other issues which are the realm of national waste planning policy, there can be no location-specific impacts of the Plan.

The Plan is designed to bring together current plans and policies already in place. Therefore the introduction of the Plan itself is not considered to have any significant impact on the environment as defined by the seven objectives which the plan is being assessed against. Therefore the Plan is assessed as having 'no or negligible' impact across the criteria used.

The alternatives considered in the environmental report are considered relative to the effects of the Plan. The policies that make up the Plan (although not introduced by it) will have positive effects in the future. The alternatives are set against this trajectory – they indicate whether the likely environmental effect would be better or worse if the pattern of waste prevention and management was to go further, or less far, than the policies set out in the Plan.

There will also be interactions between the levels of the waste hierarchy. For example, as the amount of recycling increases, the potential environmental benefits that may be obtained through increased waste prevention and reuse will fall. These interactions will occur for a number of the objectives considered within the analysis including global and local emissions as well as water use.

Further detail can be found in the Post-Adoption Statement which is available at <https://www.gov.uk/government/publications>.

Current Waste Management Situation

How we deal with our waste is important for our society. It affects the availability of materials and energy needed for growth as well as our climate change and environmental objectives. Our principal commitments to work towards a longer term vision of a zero waste economy – and the challenges in doing so – are set out in the Waste Review 2011. This focuses on sustainable use of materials and on improving services to householders and businesses, while delivering environmental benefits and supporting economic growth. Further information can be found in the [Waste Review](#)¹²:

We are working towards moving beyond our current throwaway society to a 'zero waste economy' in which material resources are reused, recycled or recovered wherever possible and only disposed of as the option of last resort. It means reducing the amount of waste we produce and ensuring that all material resources are fully valued – financially and environmentally – both during their productive life and at 'end of life' as waste. The benefits will be realised in a healthier natural environment and reduced impacts on climate change as well as in the competitiveness of our businesses through better resource efficiency and innovation – a truly sustainable economy.

Waste management is defined by the revised Waste Framework Directive as “the collection, transport, recovery and disposal of waste, including the supervision of such operations and the after-care of disposal sites, and including actions taken as a dealer or broker”. Waste management in England (and the UK) has undergone a rapid period of development which has continued through to the current time.

Prior to the turn of the century the vast majority of waste produced in the UK had been land filled, at a minimal (financial) cost and recycling was in its relative infancy. For example only 7% of household waste was recycled in England in 1997/8. Since that time the rate of recycling of household waste has risen rapidly to 36.3% in 2007/08 and to over 40% on the most recent figures.

Similarly, in the industrial and commercial sectors, less waste is generated, less waste sent to landfill and more recycled than in the past. In total, 47.9 million tonnes of commercial and industrial waste were generated in England in 2009, compared with 67.9 million tonnes in 2002-3. A total of 25 million tonnes (52%) of commercial and industrial waste was recycled or reused in England in 2009, compared with 42% in 2002/3. A total of 11.3 million tonnes (24%) of commercial and industrial waste were sent to landfill in 2009, compared with 41% in 2002/3.

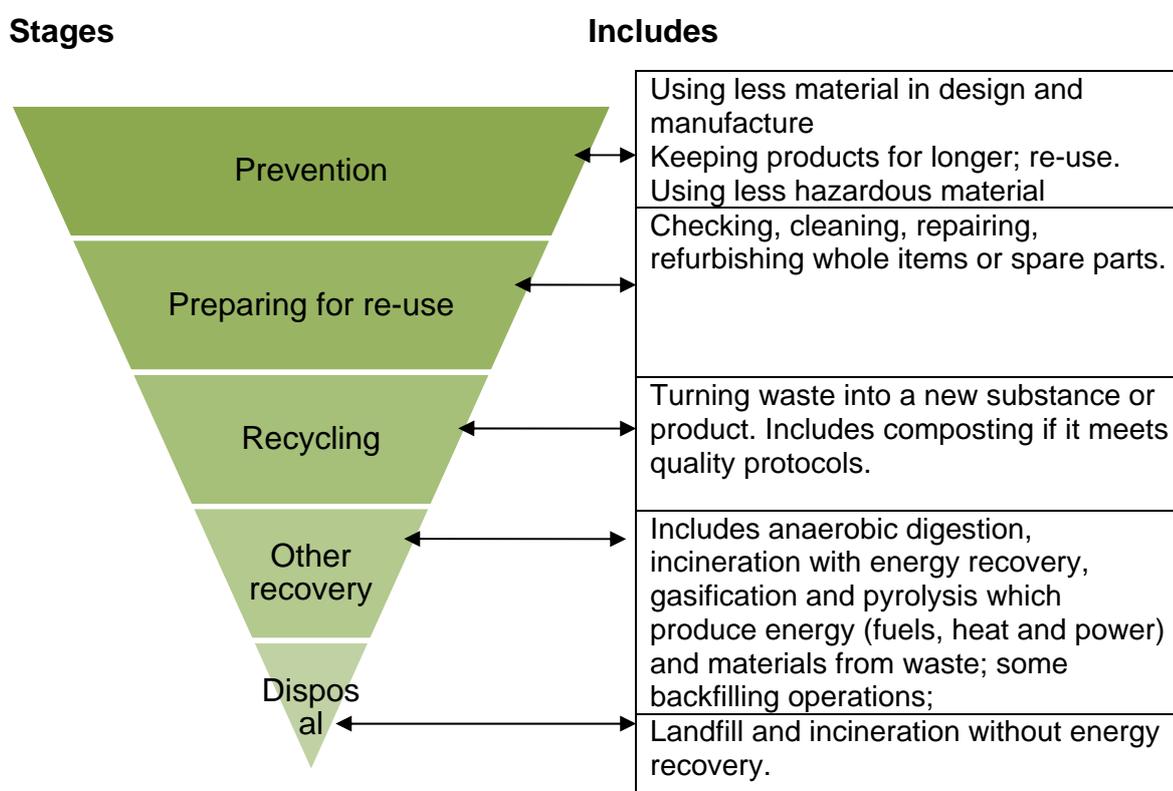
This has been driven by a combination of regulatory, policy and financial measures such as recycling targets, landfill tax, and targeted financial support. From lagging well behind, the UK has now reached a comparable level of performance with many countries in the EU. The current data on waste arisings are detailed below.

¹²<https://www.gov.uk/government/publications/government-review-of-waste-policy-in-england-2011>

The Waste Hierarchy

In England, the waste hierarchy is both a guide to sustainable waste management and a legal requirement, enshrined in law through the Waste (England and Wales) Regulations 2011. The hierarchy gives top priority to waste prevention, followed by preparing for re-use, then recycling, other types of recovery (including energy recovery), and last of all disposal (e.g. landfill).

The dividends of applying the waste hierarchy will not just be environmental. We can save money by making products with fewer natural resources, and we can reduce the costs of waste treatment and disposal.



The 2011 Regulations require everyone involved in waste management and waste producers in England to take, on the transfer of waste, all reasonable measures to apply the waste hierarchy except where, for specific waste streams, departing from the hierarchy is justified by lifecycle thinking on the overall effects of generating and managing the waste. Regulators under the Environmental Permitting (England and Wales) Regulations 2010¹³ must exercise functions (such as granting environmental permits) for the purpose of ensuring that the waste hierarchy is applied to the generation of waste by a waste

¹³ SI 2010/675

operation. To aid people to apply the waste hierarchy, Defra has produced [guidance on its application](#)¹⁴.

Prevention

The Government's aim is to reduce the amount of waste produced across the economy whilst supporting economic growth. We measure the total amount of raw materials used and waste produced alongside the commercial, industrial and household waste produced per unit of Gross Value Added (GVA). This shows how quickly we are moving along a pathway to a zero waste economy. Although information on waste arisings is available for England, information on use of materials is currently only available at a UK level.

The most current statistics (2010) providing this information can be found at: <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/waste-and-recycling-statistics>

We have developed a [Waste Prevention Programme for England](#)¹⁵ to continue the progress towards a zero waste economy by setting out detailed actions to:

- encourage businesses to contribute to a more sustainable economy by building waste reduction into design, offering alternative business models and delivering new and improved products and services,
- encourage a culture of valuing resources by making it easier for people and businesses to find out how to reduce their waste, to use products for longer, repair broken items, and enable reuse of items by others,
- help businesses recognise and act upon potential savings through better resource efficiency and preventing waste, to realise opportunities for growth; and
- support action by central and local government, businesses and civil society to capitalise on these opportunities.

Preparing for Re-use

Government is currently developing re-use and repair policies alongside the development of the waste prevention programme. The Government's Call for Evidence for the Waste Prevention Programme provided information on current reuse, remanufacture and repair activities in England.¹⁶

¹⁴ <https://www.gov.uk/waste-legislation-and-regulations>

¹⁵ <https://www.gov.uk/government/publications/waste-prevention-programme-for-england>

¹⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/181992/wpp-consult-doc-20130311.pdf.pdf

Recycling

The most recent statistics¹⁷ show that the rate of recycling for waste from households in England continues to increase, with our current policy measures, towards the EU target of recycling 50% of household waste by 2020. The Government keeps progress towards the targets under review by monitoring actual recycling rates and by modelling future recycling. We are already exceeding the 70% target for recovering construction and demolition waste. Commercial and industrial waste reached a recycling rate of 52% in 2010. This Plan sets out a number of other initiatives that are under way to boost recycling.

Other Recovery

The Government supports anaerobic digestion (AD) because of its value in dealing with organic waste and avoiding, by more efficient capture and treatment, the greenhouse gas emissions associated with its disposal to landfill. AD also recovers energy and produces valuable bio-fertilisers. The Government is committed to increasing the energy from waste produced through AD and has produced, working with industry, a Strategy and Action Plan to tackle the barriers to AD¹⁸. Two progress reports on the Action Plan have been published.¹⁹

The Government supports efficient energy recovery from residual waste – of materials which cannot be reused or recycled - to deliver environmental benefits, reduce carbon impact and provide economic opportunities. Our aim is to get the most energy out of waste, not to get the most waste into energy recovery. Defra has produced a guide to energy from waste to provide factual information to all of those interested in the development of such facilities including developers, local authorities and local communities²⁰.

It is for the Environment Agency to determine on a case by case basis whether an application for an environmental permit constitutes a waste recovery or a disposal operation. Inert waste can and should be recovered or recycled whenever possible. However, the disposal of inert waste in or on land i.e. landfill, remains a valid way of restoring quarries and worn out mineral workings where this is a planning requirement.

¹⁷ <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/waste-and-recycling-statistics>

¹⁸ <https://www.gov.uk/government/policies/reducing-and-managing-waste/supporting-pages/anaerobic-digestion-and-energy-recovery-from-waste>

¹⁹ <https://www.gov.uk/government/publications/anaerobic-digestion-strategy-and-action-plan-annual-report-2012-to-2013>

²⁰ <https://www.gov.uk/government/publications/energy-from-waste-a-guide-to-the-debate>

Disposal

Landfill or incineration without energy recovery should usually be the last resort for waste, particularly biodegradable waste. (Incineration may be classed as recovery or disposal depending on the circumstances. Our Energy from Waste guide provides further analysis of this issue²¹).

The landfill tax is the key driver to divert waste from landfill to ensure that we meet EU targets under the Landfill Directive. That does not mean that all wastes will be diverted from landfill by 2020. There are some wastes for which landfill remains the best or least worst option. The Waste Review 2011 suggested that such materials are likely to include:

- some hazardous wastes – such as asbestos;
- certain process residues, such as pre-treated industrial wastes from which no further resources can be recovered; and
- waste for which the alternatives to landfill are not justified on cost or environmental and resource efficiency grounds.

²¹ Paragraphs 45-52, <https://www.gov.uk/government/publications/energy-from-waste-a-guide-to-the-debate>

Waste Regulation

Waste legislation exists to ensure that the environment and human health is protected. Effective regulation provides a level playing field in which legitimate businesses can operate and invest with confidence and thus help to create markets. However, waste regulation can impose significant burdens on business: it is therefore important that regulation is proportionate to the risk posed by waste management operations and targeted against those with poor standards of compliance or who cause a nuisance or harm, and those who deliberately flout the law.

The Environment Agency is the main regulator of waste management in England. Among its responsibilities are the determination of applications for environmental permits required under Article 23 of the revised Waste Framework Directive; and carrying out inspection and other compliance assessment activities. The Agency also registers exemptions for low risk waste treatment.

Better regulation principles have already had significant impact on improving waste regulation. For example the replacement of the waste management licensing system by an integrated system of environmental permitting in April 2007. The UK is also one of the few Member States to make extensive use of exemptions from environmental permitting for smaller scale, lower risk waste treatment operations and a new schedule of exempt waste operations was introduced in 2010. In a number of areas, the Environment Agency and other regulators have been able to reduce burdens on business by improving the clarity of application forms and guidance and by reducing the inspection of those who are already demonstrating that they are meeting standards. Further information can be found on pages 36 to 40 of the 2011 Waste Review.

Polluter pays principle

The waste producer and the waste holder should manage waste in a way that guarantees a high level of protection of the environment and human health. In accordance with the polluter-pays principle, the costs of waste management shall be borne by the original waste producer or by the current or previous waste holders. The distributors of products potentially share these costs. The polluter-pays principle ensures that those responsible for producing and holding waste are incentivised to reduce and/or manage their waste in a way that reduces impacts on the environment and human health.

Waste Arisings

Data on household waste and similar wastes managed by local authorities is collected through [WasteDataFlow](#)²². The most recent annual statistics on household waste and local authority waste management are for 2012/13. Data on other types of waste (commercial and industrial waste and construction and demolition waste) are available from a variety of sources. The Waste Review 2011 estimated that the total arisings of waste in England in 2008 were 165.1 million tonnes from households, commercial and industrial businesses and the construction sector. The decline in waste arisings already evident in 2008 has continued since then.

Over the last four years – and with support from the EU LIFE+ programme – the UK has developed a national electronic duty of care (EDOC) system. This internet-based system will monitor the collection, transportation and disposal of waste materials across the UK. Due to be rolled out from January 2014, it will offer an alternative to the existing paper-based system of waste transfer notes, modernising the way that waste data is collected in the UK. As well as reducing burdens on business of the current paper-based system, it will significantly enhance the ability to extract good quality data for businesses, regulators and government.

²² <http://www.wastedataflow.org/>

Household waste

In 2012/13, 22.6 million tonnes of household waste were generated in England (see breakdown in Figure 1). Household waste has been falling since 2007/8, on average by just over 2% per year. This decline continued in 2012/13 to 22.6 million tonnes²³. In 2012/13, 43.2% of the waste generated was recycled, re-used or composted. This is an increase from 41.5% in 2010/11. It equates to 423kg of waste generation per person per year, of which 183kg was recycled, composted or re-used.

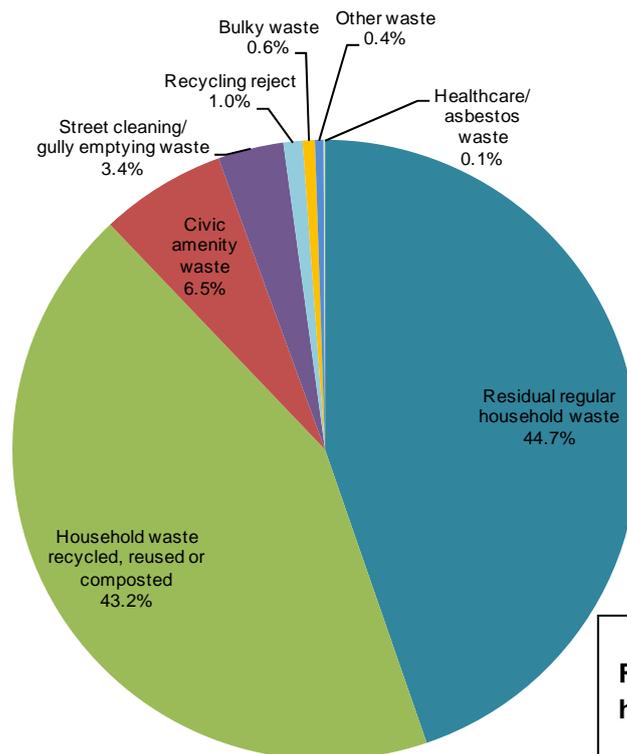


Figure 1: Composition of household waste in 2012/13

Based on 22.6 million tonnes of total household waste arisings - 2012/13

²³ <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/waste-and-recycling-statistics>

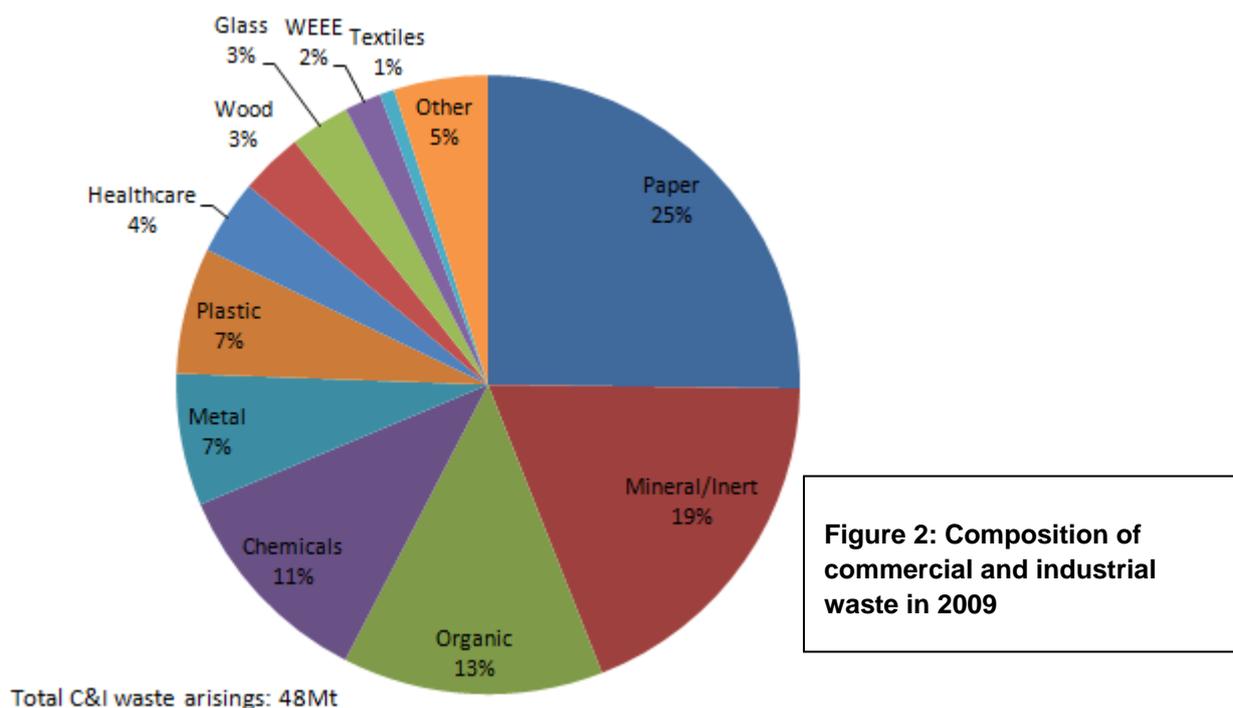
Commercial and Industrial Waste

In 2009, 47.9 million tonnes of waste were generated by businesses²⁴. The industrial sector accounted for 24.1 million tonnes and the commercial sector 23.8 million tonnes.

The survey showed that there had been a decline in waste arisings in both the commercial and industrial sectors. Industrial wastes had declined by 13.4 million tonnes, or 36%, since a similar survey in 2002/3; commercial waste had declined by 6.5 million tonnes, or 21%, in the same period.

The survey estimated that 52% of commercial and industrial waste was recycled or re-used in 2009 and 24% was sent to landfill. Small enterprises, with fewer than 50 employees, produced 16.6 million tonnes of commercial and industrial waste in 2009, or 35% of total commercial and industrial waste.

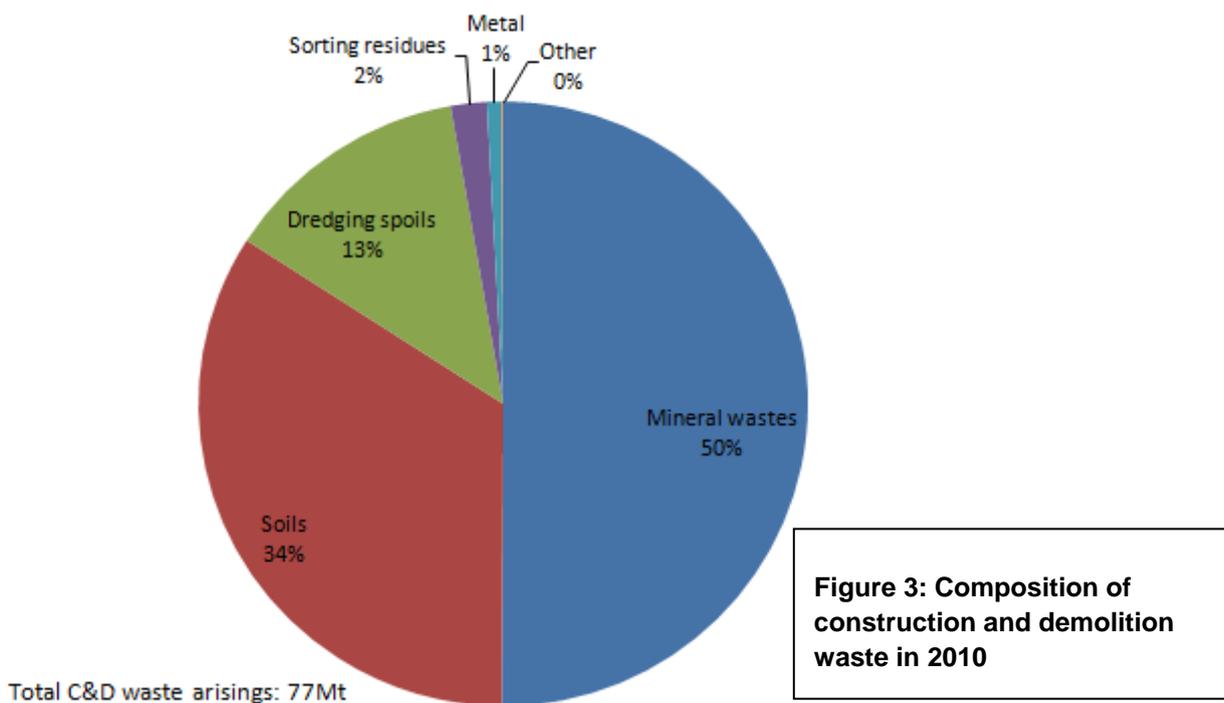
Over the last four years – and with support from the EU LIFE+ programme – the UK has developed a national electronic duty of care (EDOC) system. This internet-based system will monitor the collection, transportation and disposal of waste materials across the UK. Due to be rolled out from January 2014, it will offer an alternative to the existing paper-based system of waste transfer notes, modernising the way that waste data is collected in the UK. As well as reducing burdens on business of the current paper-based system, it will significantly enhance the ability to extract good quality data for businesses, regulators and government.



²⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/85947/ci-statistics-release.pdf and <https://www.gov.uk/government/publications/commercial-and-industrial-waste-generation-and-management>

Construction and Demolition Waste (C&D)

The construction, demolition and excavation sector is the largest contributing sector to the total waste generation. This generated 77.4 million tonnes of waste in 2010 (down from 81.4 million tonnes in 2008).



It is important to note that the mineral wastes in this pie-chart are inert materials from construction and not from mining/extractive activities.

Hazardous waste

The amounts of hazardous waste consigned in England are significant, with around 3.3 million tonnes arising in England in 2010, 3.9 million tonnes in 2011 and 4 million tonnes in 2012. This waste arises from six main sectors of industry: chemicals, oils, construction and demolition, waste and water treatment and general industry. The [Government's Hazardous Waste Strategy](#)²⁵ sets out the Government's policy on the management of this hazardous waste. The Strategy aims to continue to encourage policies which lead to reductions in hazardous waste arisings, and the wider application of the waste hierarchy to the management of hazardous waste.

²⁵ <https://www.gov.uk/government/policies/reducing-and-managing-waste/supporting-pages/hazardous-waste>

Waste: imports and exports

The UK imports around 125 million tonnes of goods and raw materials from abroad each year, including food, electrical items, clothing and a range of other products (but excluding fossil fuels). This allows the UK to access goods which can be made more cheaply elsewhere or from materials not available in the UK.

In turn, as well as importing and exporting goods, the UK imports nearly 250 thousand²⁶ tonnes of waste materials and exports approximately 15 million tonnes of materials for recycling per year.

This ensures that much of the recyclable waste collected by local authorities and waste management companies is ultimately recycled. It is natural in our economy, where consumption of goods outweighs domestic manufacture, that a responsible 'closed loop' approach to products will involve the return of some materials from the UK for recycling and reincorporation in manufacture overseas. The global trade in material for re-use, recycling and recovery generates significant benefits for global resource use, reducing carbon emissions globally and helping to meet recycling targets.

The materials that the UK exports for recovery include glass, paper, plastic and scrap metal which are all traded on the international market. The largest volume of materials exported for recovery is metals, followed by paper and cardboard. Plastics and glass are also exported for recovery in significant volumes. Our principal trading partners are the rest of the EU and European Free Trade Association (EFTA) countries, but also include countries as diverse as Turkey, India, and China (which is the main export destination for paper and plastic for recycling). The use of these materials in these countries can lead to considerable savings in virgin resources and in greenhouse gas emissions from waste that might otherwise be put into landfill.

The UK also exports refuse derived fuel (RDF) mainly to northern continental Europe and Scandinavia for energy recovery. RDF is mixed solid waste that has been pre-treated so it consists largely of combustible components such as plastic and biodegradable waste. Exports of RDF have increased significantly in recent years in response to the rising costs of landfill in the UK. Exports of wood/biomass for energy recovery are not included within the RDF data. Exports of RDF have risen from zero in 2009 to 13,258 tonnes in 2010 and 887,465 tonnes in 2012.

Waste shipment controls

There are strict controls on what waste can be exported and to which countries. These controls stem from the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their disposal. The Basel Convention is both implemented and supplemented in the EU by the Waste Shipments Regulations and associated regulations

²⁶ 2011

which set out the controls on the import and export of waste within, to and from the EU. The EU controls prohibit any waste exports from the EU for disposal such as landfill or incineration and no hazardous waste may be exported from the EU to developing countries. They also require that waste should only be exported to developing countries for recovery when the country of destination has indicated that it wishes to accept it and when it will be treated in facilities that operate to a broadly equivalent standard to those in the EU.

These EU controls are also supplemented by UK policy on the import and export of waste for disposal. This is set out in the UK Plan for Shipments of Waste²⁷. The UK Plan implements our obligations under the Waste Framework Directive for Member States to move towards a position of self-sufficiency in waste disposal.

Enforcement of waste shipments legislation

The Environment Agency in England is the enforcement authority for the controls, and regards illegal exports of waste as a priority for action. This will help to prevent and disrupt illegal activity and prosecute offenders. In taking this work forward, the Agency works closely with UK customs authorities and other environmental agencies, the shipping lines and overseas regulators, and Government is assisting with the provision of a legal gateway to enable the sharing of information between authorities.

Waste producers can play an important role in reducing illegal waste exports. Some waste types, such as waste electrical and electronic equipment and waste tyres are at particular risk of deliberate illegal export. Waste producers should exercise extra vigilance to ensure the waste they produce, or are responsible for collecting, is treated in a responsible manner throughout the chain of management and the risk of subsequent illegal export minimised.

²⁷ <https://www.gov.uk/government/publications/uk-plan-for-shipments-of-waste>

Waste Services

Managing waste further up the waste hierarchy has required a change in our waste management practices. As waste is increasingly treated as a resource it has led to complexities in our waste management services. These complexities are enhanced by the variation in waste services across England which are delivered by the different tiers of local government, i.e. unitary, county and district levels and by the private sector. Waste services, more specifically waste collection schemes and major disposal and recovery installations for municipal waste, are a matter for local authorities to develop fit for purpose local solutions within the context of the Environmental Protection Act 1990 and subsequent Regulations. Waste services for business waste are largely provided by the private sector as are many of the services for municipal waste commissioned by local authorities.

Measures to promote high quality recycling

The Government has been working with local councils to increase the frequency and quality of waste collections and make it easier to recycle. Further information with regards to existing waste collection schemes can be found in the Waste Review 2011.

The Government believes that the most effective way to encourage recycling and other positive waste behaviours is to reward and recognise, rather than to punish, and is supporting a number of trial schemes to test out the rewards and recognition which have the most effect. The Department for Communities and Local Government's £250 million Weekly Collection Support Scheme is funding 82 councils to retain or reinstate weekly collections of residual waste. Around half of these councils plan to use some of their funding to introduce recycling rewards schemes.

The Government supports local authorities in improving quality and quantity of recycling. In 2012 the Government amended the Waste (England and Wales) Regulations 2011. In effect these require the separate collection of waste paper, metal, plastic and glass from 2015 onwards wherever separate collection is necessary to get high quality recycling, and practicable. The regulations transpose the revised Waste Framework Directive.

It is clear that the intention of the underlying Directive is that these requirements will drive up the quality of recycling and that from 2015 the default should be separate collection. Separate collection does not of course mean that each household will need more bins. For example, many areas have kerbside sort systems where materials are sorted before being loaded into the waste collection vehicle.

To help improve waste management the Government funds the Waste and Resources Action Programme (WRAP), which advises local authorities and others, including on best practice in collections.

On 1 February 2013, Defra began a consultation on draft Regulations relating to Material Recovery Facilities (MRFs), which sort waste into different material streams which are then sent to reprocessors. The proposed Regulations include mandatory sampling weights and frequencies for inputs and outputs at MRFs and will improve transparency in the supply chain and drive improvements in the quality of recyclates. The consultation closed on 26 April. The Government is evaluating the replies received and will publish a response in early 2014.

This consultation was accompanied by the publication of a [Quality Action Plan](#)²⁸ on improving the quality of recyclates:-

The Action Plan sets out other measures for the whole supply chain, including:

- Working with the Environment Agency in England to maximise the effectiveness of the enforcement of export regulations, especially at MRFs. This will improve confidence in a level playing field for legitimate businesses.
- Guidance to local authorities and the waste management industry on the revised Waste Framework Directive requirement for separate collection of different materials for recycling, and the circumstances under which co-mingling can play a role.
- Possible reform of the Packaging Recovery Note and Packaging Export Recovery Note system to even out any disparity in the playing field between exports and domestic reprocessing.

Separate collection of biowaste

The Government has a range of measures to encourage the separate collection of biowaste in England, which is often environmentally the best solution. However, the decision to offer a separate collection is for local councils, taking into account local circumstances including logistics, characteristics of the area, and providing the services local people want. Almost all local authorities collect garden waste separately and about 50% collect food waste either on its own or with garden waste, providing quality feedstocks for anaerobic digestion and composting.

The Government has identified anaerobic digestion as the best technology currently available for treating food waste. Anaerobic digestion is incentivised through renewable energy subsidies and the Government has adopted an [Anaerobic Digestion Strategy and Action Plan](#)²⁹ to overcome barriers to the uptake of the technology:

Other actions include work by the Waste and Resources Action Programme to demonstrate the benefits of food waste collections to business. A voluntary agreement

²⁸ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/181817/pb13875-qap-recycling.pdf.pdf

²⁹ <https://www.gov.uk/government/policies/reducing-and-managing-waste/supporting-pages/anaerobic-digestion-and-energy-recovery-from-waste>

with the Hospitality and Food Services Sector includes targets on waste prevention and on sending unavoidable food waste to anaerobic digestion or composting.

Arrangements for Hazardous Waste

The Government's [Strategy for Hazardous Waste Management in England](#)³⁰ sets out the Government's vision for improved hazardous waste treatment. The Strategy aims to continue to encourage policies which lead to reductions in hazardous waste arisings, and the wider application of the waste hierarchy to the management of hazardous waste.

We anticipate that associated hazardous waste management practices and new infrastructure will meet existing regulatory requirements, including those of the revised Waste Framework Directive and the Landfill Directive. This will help to secure environmentally sound management of hazardous waste. The hazardous waste management Strategy includes information on how some key hazardous wastes are managed. It includes an annex listing the priority facilities required. In addition, guidance has been developed on applying the waste hierarchy to hazardous waste to encourage further the provision of key infrastructure.

Furthermore, under the Planning Act 2008, Defra published in June 2013 a [National Policy Statement for Hazardous Waste](#)³¹ in relation to the development of nationally significant hazardous waste infrastructure. The Statement sets out the strategic need and government policy context for the provision of such infrastructure. It will be used to guide decisions by the Planning Inspectorate but also will provide guidance to developers.

Arrangements for Construction and Demolition Waste

The United Kingdom is committed to meeting its target under the Waste Framework Directive of recovering at least 70% by weight, of construction and demolition waste³² by 2020. Defra worked with industry, as part of the 2008 Sustainable Construction Strategy, on the joint Government and Industry target to halve construction, demolition and excavation waste to landfill by 2012, compared to a 2008 baseline.

In partnership, Defra and industry stakeholders have produced a methodology to calculate the recovery rate of construction and demolition waste to landfill. This now forms the basis of Government monitoring of waste in this sector. Defra has already used this method, with some adjustments to ensure it conforms to legal definitions, to report to the European

³⁰ <https://www.gov.uk/government/policies/reducing-and-managing-waste/supporting-pages/hazardous-waste>

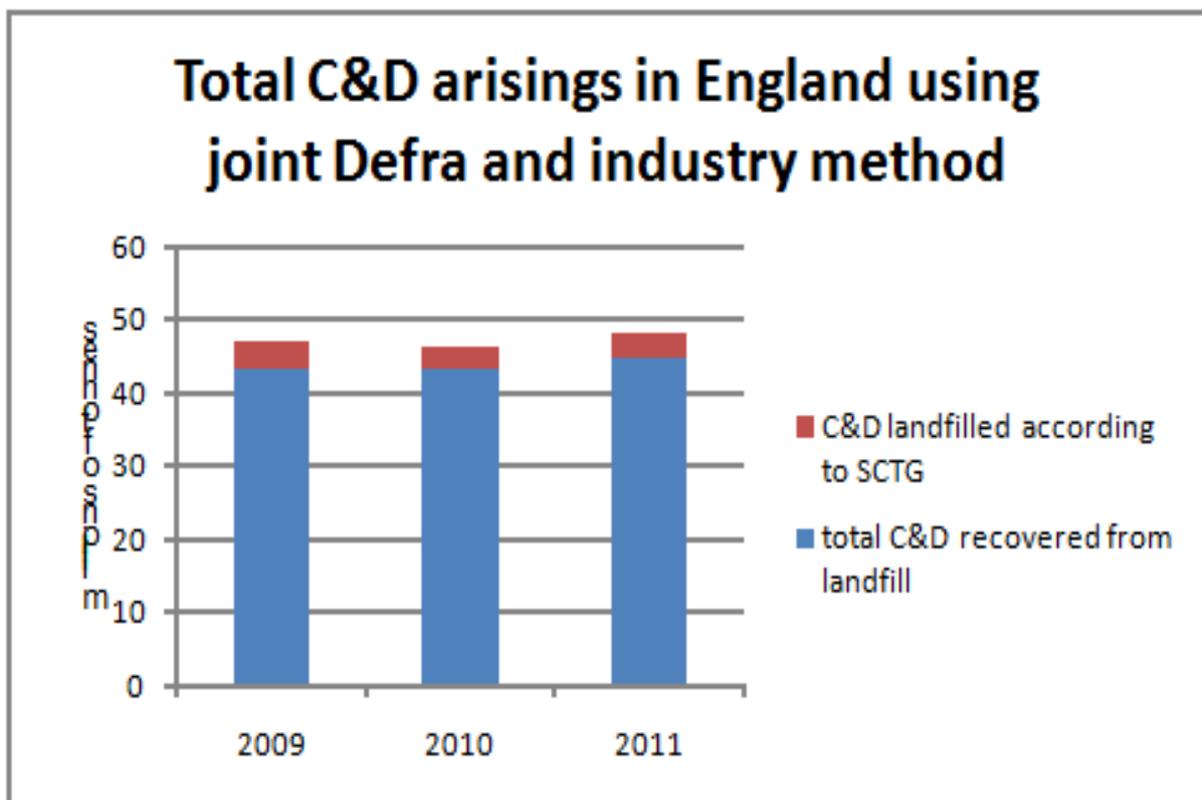
³¹ <https://www.gov.uk/government/publications/hazardous-waste-national-policy-statement>

³² This is construction and demolition waste, excluding hazardous waste and naturally occurring material falling within code 17 05 04 in Schedule 1 to the List of Wastes (England) Regulations 2005 (SI 2005/895).

Commission on progress towards the recovery rate target on construction and demolition waste. Defra has also agreed this method with the Devolved Administrations and produced provisional UK estimates.

England and the UK are already achieving an estimated 93% recovery rate of construction and demolition waste. This already exceeds the 2020 target of recovering at least 70% by weight, of non-hazardous construction and demolition waste.

The industry are using this method to monitor the joint Government and Industry target to halve construction, demolition and excavation waste to landfill by 2012, compared to a 2008 baseline.



Arrangements for Marine Waste

Marine waste can have environmental impacts through accidental pollution from ships in the course of navigation or lawful operations, pollution caused by unlawful operational discharges by ships, such as oil, waste or sewage, or physical damage caused by groundings or collisions.

Marine waste is regulated by both domestic law and international conventions that the UK has signed up to. These are the OSPAR Convention 1992; the London Convention 1996; and the Marine and Coastal Access Act 2009 plus the Merchant Shipping (Prevention of

Pollution by Sewage and Garbage from Ships) Regulations 2008³³ which provides domestic regulation.

Since 1998, in compliance with international obligations, the UK Administrations have, with some minor exceptions, only licensed the disposal at sea of capital and maintenance dredging and small amounts of fish waste. Most marine dredging and disposal is for the purposes of navigation and existing and future port development, though other works can take place to facilitate the construction of pipelines, outfalls and tunnels.

Disposal of dredged material at sea is regulated by the Marine Management Organisation under the licensing provisions of the Marine and Coastal Access Act 2009. The licensing provisions are applied so as to conform with the requirements of the revised Waste Framework Directive. Those wishing to dispose of marine waste must demonstrate that appropriate consideration has been given to the internationally agreed hierarchy of waste management options for sea disposal. Waste is not accepted for disposal where appropriate opportunities exist to re-use, recycle or treat the waste without undue risks to either human health or the environment, or disproportionate costs.

Regulators undertake a detailed evaluation of the potential adverse effects of any dredging activity or deposit on the marine ecosystem and others using the sea. This should have full regard to any accompanying environmental statement or additional data that may be requested in support of the application and international obligations under the OSPAR Convention and London Convention, as well as any other available guidance.

The Marine Management Organisation considers the potential adverse effects on the marine environment, habitats and wildlife from dredging activity. Particular recognition is given to the implementation and use of the maintenance dredge protocol⁹⁵ to minimise impacts on habitats and wildlife and help meet statutory obligations in relation to European Sites.

Fish waste from processing of fish at sea may be disposed in the marine environment but this is subject to the marine licensing provisions of the Marine and Coastal Access Act.

Burial at sea is generally discouraged but is allowed in some circumstances, subject to licensing. There are three designated sites where burials may take place: Needles, Isle of Wight; off Tynemouth, North Tyneside; and between Hastings and Newhaven on the south coast.

³³ SI 2008/3257

Business Waste

Business waste incorporates commercial waste and industrial waste. Generally, businesses are expected to make their own arrangements for the collection, treatment and disposal of their wastes. Waste from smaller shops and trading estates where local authority waste collection agreements are in place will generally be treated as municipal waste (this is waste similar to household waste i.e. paper, card etc).

As referred to in the Waste Review 2011 (page 50), all business, from the micro-business to the multi-national should have access to regular, efficient and affordable waste collection and recycling services, whether provided by the private sector or their local authority.

Waste prevention sits at the top of the waste hierarchy as preventing waste has the best environmental outcome. It can save businesses and consumers money, and avoids costs to businesses and local authorities of dealing with the waste that would otherwise be produced. The [Government's Waste Prevention Programme](#)³⁴ considers waste as a resource and identifies opportunities for waste prevention to benefit business sectors and the wider economy.

In October 2011, Defra published a [Business Waste and Recycling Collection Commitment](#)³⁵, working in collaboration with the Waste and Resources Action Programme, the Local Government Association and Federation of Small Businesses. The Commitment sets out the principles of how local authorities can help local businesses meet their waste management responsibilities and recycle more.

Packaging and Producer Responsibility

Packaging fulfils an important role. It protects food and other goods on the journey from where they are made to where they are used. Its key role is to avoid spoilage and damage, which create waste, in the supply system and in the home. However, reducing packaging, without harming functionality, as well as using refillable and reusable packaging, can save businesses money, reduce waste for them and deliver environmental benefits. Furthermore, survey after survey shows that consumers believe packaging is a big environmental problem.

The UK has established a "Producer Responsibility" regime which implements the Directive on Packaging and Packaging Waste (94/62/EC, amended by EC Directives 1882/2003, 2004/12, and 2005/20, and EC Regulation 219/2009/EC). Producer Responsibility is a way of implementing the "polluter pays" principle and makes producers (i.e. businesses that manufacture, import and sell certain products) responsible for ensuring a proportion of their products are recycled and recovered once they have

³⁴ <https://www.gov.uk/government/publications/waste-prevention-programme-for-england>

³⁵ <http://www.wrap.org.uk/category/initiatives/business-recycling-and-waste-services-commitment>

reached the end of their life. Producer Responsibility regulations also encourage the minimisation of waste from these products, promote their re-use, and set targets for the recycling and recovery of waste materials.

The Department for Business, Innovation and Skills (BIS) leads on the Packaging (Essential Requirements) Regulations 2003 (as amended) which implements the single market and optimisation aspects of the Packaging Directive.

Defra leads on the Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (S.I 2007/871 as last amended by SI 2012/3082) which set targets for the recycling and recovery of packaging waste. New [packaging recovery and recycling targets for 2013–17](#)³⁶ came into force in December 2012. The new targets will mean an increase in recycling for plastics, aluminium and split targets for glass based on the end use (i.e. remelt or aggregate). The new targets will deliver environmental and economic benefits as well as ensure the UK continues to meet the EU Directive targets over the next five years.

The Regulations impose the recycling targets across the supply chain and create a market-based system of Packaging Recovery Notes (PRNs) and, for material exported, Packaging Export Recovery Notes (PERNs) that are used to demonstrate compliance. The UK is currently considering how to address a perceived imbalance between PRNs and PERNs.

These regulations on packaging have played a valuable role in creating markets for recovered packaging materials and driving behaviour change. Voluntary action is also an important driver of behaviour change on packaging. The government will work with business to encourage – where appropriate – greater use of recycled content in packaging, as well as to make packaging more recyclable.

The Producer Responsibility regime in the UK also covers waste electrical and electronic equipment (WEEE), batteries and vehicles. All Producer Responsibility Regulations share a common financial obligation for producers to bear the costs of collecting, treating and recycling / recovering a proportion of their waste products/packaging to meet legal targets and minimum standards, and establish similar administrative processes such as producer registration, approvals of compliance schemes and the authorisation of treatment facilities. As part of the Government's commitment to improving Regulation, Defra and BIS are currently reviewing all Producer Responsibility Regulations (including the packaging regime) with a view to reducing burdens on business and to bring a greater level of coherence across all the regimes – details available via <http://npwd.environment-agency.gov.uk/>

³⁶ <https://www.gov.uk/government/policies/reducing-and-managing-waste/supporting-pages/packaging-waste-producer-responsibility-regimes>

Assessment of need for new collection schemes and infrastructure/closure of waste infrastructure

Infrastructure

The Government's ambitions for waste highlight the importance of putting in place the right waste management infrastructure at the right time and in the right location. We aim to have the appropriate waste reprocessing and treatment infrastructure constructed and operated effectively at all levels of the waste hierarchy to enable the most efficient treatment of our waste and resources. In line with the Government's approach to localism, we continue to support local authorities to facilitate the provision of necessary waste infrastructure, recognising that local communities should benefit from hosting waste infrastructure and be involved from an early stage in planning for such infrastructure.

The Environment Agency regulates the closure of permitted waste operations through surrender notifications and applications. Operators of some regulated facilities may simply notify the Environment Agency but others must make an application to the regulator as required under regulations 24 and 25 of the Environmental Permitting (England and Wales) Regulations 2010. It is also possible to surrender part of an Environmental Permit, for example, if the operator is reducing the extent of a permitted site. Where there is a partial surrender, the regulator may need to vary the permit conditions to reflect this. Specific provisions apply to the closure of landfill sites³⁷. Closed landfill sites fall into three categories:

- (i) sites that closed after 16 July 2001 and are regulated in accordance with the requirements of the Landfill Directive,
- (ii) sites that are permitted but closed before 16 July 2001; and
- (iii) historic closed landfills.

Proximity principle

The revised Waste Framework Directive establishes the principle of 'proximity'. This is within the context of the requirement on Member States to establish an integrated and adequate network of waste disposal installations for recovery of mixed municipal waste collected from private households. The requirement includes where such collection also covers waste from other producers.

The network must enable waste to be disposed of, or be recovered, in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health.

³⁷ <http://www.environment-agency.gov.uk/business/sectors/110466.aspx>

The Directive also requires that the network shall be designed in such a way as to enable Member States to move towards the aim of self-sufficiency in waste disposal and the recovery of waste. However, Member States must take into account geographical circumstances or the need for specialised installations for certain types of waste and the Directive makes it clear that each Member State does not have to possess the full range of final recovery facilities.

This principle must be applied when decisions are taken on the location of appropriate waste facilities.

Waste Planning

Planning Policy Statement 10 “Planning for Sustainable Waste Management”³⁸ sets out current planning policy to be taken into account by waste planning authorities. The policy should be read in conjunction with the [National Planning Policy Framework](#)³⁹.

National planning policy for waste aims to help achieve sustainable waste management by securing adequate provision of new waste management facilities of the right type, in the right place and at the right time. Under the national planning policy approach, waste planning authorities should identify in their local waste plans sites and areas suitable for new or enhanced facilities for the waste management needs of their area. In deciding which sites and areas to identify for such facilities, waste planning authorities should assess their suitability against the criteria set out in the policy. This includes the physical and environmental constraints on development, existing and proposed neighbouring land uses, and any significant adverse impacts on the quality of the local environment.

The Government has consulted on an update of this policy, which maintains the core principles contained in Planning Policy Statement 10 but adopts a more streamlined approach in line with the principles adopted for preparing other planning policy now contained in the National Planning Policy Framework. The proposed updated national planning policy for waste recognises the importance of close co-operation between waste planning authorities, emphasising the requirements of the duty to co-operate in section 110 of the Localism Act 2011. Increasingly local authorities are working together in partnerships to deliver full and efficient waste services.

All local planning authorities should have regard to both the waste management plan for England and the national waste planning policy when discharging their responsibilities to the extent that they are appropriate to waste management. Waste planning authorities remain responsible for developing local authority waste plans as part of their wider strategic planning responsibilities, in support of the Waste Management Plan for England.

³⁸ www.gov.uk/government/publications/planning-for-sustainable-waste-management-planning-policy-statement-10

³⁹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf.

Location

The [Environment Agency's Infrastructure Report](#)⁴⁰ is a compilation of regional reports providing key statistics on waste management infrastructure (numbers, locations and capacities of operational waste management sites including major disposal and recovery installations). They also cover the types and quantities of all waste (household, commercial and industrial, including construction and demolition) managed in the area. The reports include an analysis of waste flows (imports to and exports from the area).

Need for additional infrastructure

The Waste Infrastructure Delivery Programme (WIDP) was set up in 2006 to address a potential shortfall in residual waste treatment capacity needed in order for England to meet its share of the UK's Landfill Directive targets. WIDP has provided local authorities, as the main bodies responsible for planning and procuring that capacity, with high quality, comprehensive support, including financial help through Private Finance Initiatives (PFI) credits (now called Waste Infrastructure Credits and grants (WICs)).

The Government has allocated a total of £3.5 billion in grant funding to 28 projects. Up to date information on this programme is available at:-

<https://www.gov.uk/government/policies/reducing-and-managing-waste/supporting-pages/waste-infrastructure-delivery-programme>

Further information on waste installations can be found on page 72 of the [Waste Review](#)⁴¹ in the chapter on Infrastructure and Planning.

As part of monitoring progress towards meeting EU Landfill Directive targets - we estimate that we will have sufficient residual waste treatment infrastructure, on reasonable assumptions, to meet our Directive obligations. As such, there are no plans to provide further WICs.⁴² However, the Government believes that there is a case for other types of support for waste infrastructure to help deliver our revised Waste Framework Directive and other EU obligations and our own priorities for resource efficiency.

The Government has, therefore, introduced other mechanisms to stimulate investment in waste infrastructure, principally through the [Green Investment Bank](#)⁴³ and the [Infrastructure Guarantee Scheme](#)⁴⁴.

Further information can be found in the [National Infrastructure Plan](#)⁴⁵.

⁴⁰ <http://www.environment-agency.gov.uk/research/library/data/134327.aspx>

⁴¹ <https://www.gov.uk/government/publications/government-review-of-waste-policy-in-england-2011>

⁴² Government forecasts of future waste arisings and treatment capacity were published in October 2013 at :https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/251523/pb14031-forecasting-2020-waste-arisings-norfolk-131017.pdf

⁴³ <http://www.greeninvestmentbank.com/what-we-do/waste/default.html>

⁴⁴ <https://www.gov.uk/government/publications/uk-guarantees-scheme-key-documents>

Collection infrastructure

Local authorities in England are under a legal obligation under the Environmental Protection Act 1990 to provide waste collections to households. From 2003, they have also been under a duty to collect at least two types of recyclable waste separately where they have a duty to collect household waste. From 1 January 2015, local authorities will need to collect waste paper, metal, plastic or glass by way of separate collection where this is necessary to ensure that waste undergoes recovery operations in accordance with Articles 4 and 13 of the Waste Framework Directive and to facilitate or improve recovery; and where such separate collection is technically, environmentally and economically practicable.

As noted in the section on measures to promote high quality recycling, the Government has also been working with local authorities to increase the frequency and quality of waste collections, make it easier to recycle and to encourage reward schemes to increase recycling. In November 2012, the Department for Communities and Local Government made available £250m under its [Weekly Collections Support Scheme](#)⁴⁶. The Department is providing funding for 82 councils committed to retaining or reinstating weekly collections of residual waste for residents. In nearly all cases, successful bids propose delivering enhanced recycling services, making it easier for residents to recycle. All successful bids will deliver environmental benefits. The Department for Communities and Local Government will continue to encourage weekly collections of residual waste in the coming years.

Within England, local authorities assess the need for any changes to collection arrangements that best fit their local circumstances and meet the legal obligations to collect waste set out above. At national level, the Waste and Resources Action Programme assesses the performance of local authority collection arrangements in terms of yields of residual waste and of dry recyclables⁴⁷. This work will help to inform future decisions on collection schemes that are needed to help the UK meet its obligations under the Waste Framework Directive.

Technologies for managing residual waste

The 2011 Waste Review set out the Government's support towards efficient energy recovery from residual waste which can deliver environmental benefits, reduce carbon impacts and provide economic opportunities. The Government aims to obtain the most energy from waste, not to get the most waste into energy recovery. To achieve this Government will ensure the right incentives are in place to develop this industry. The Government does not express a preference for one technology over another, since local

⁴⁵ <https://www.gov.uk/government/organisations/infrastructure-uk/series/national-infrastructure-plan>

⁴⁶ <https://www.gov.uk/government/policies/making-sure-council-tax-payers-get-good-value-for-money/supporting-pages/bins-and-waste-collection>

⁴⁷ <http://www.wrap.org.uk/content/local-authority-waste-and-recycling-information>

circumstances differ. Any given technology is more beneficial if both heat and electricity can be recovered. Particular attention should therefore be given to the location of the plant to maximise opportunities for heat use.

Waste management technologies are still being devised to treat society's residual waste which cannot sustainably be recycled. While some technologies such as large-scale incineration are well established, others such as gasification are less developed or still at the pre-deployment stage.

Those making investment decisions should consider the information in the public domain, such as the [Government's guidance on energy from waste](#)⁴⁸.

⁴⁸https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/181831/pb13892-energy-from-waste.pdf.pdf

Evaluation of the development of waste streams in the future

The policies that are summarised in this document are designed to achieve the aims of the revised Waste Framework Directive, which is to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use.

We are committed to taking a more sustainable approach to the use of materials, delivering environmental benefits and supporting economic growth. We aim to achieve this through prioritising efforts to manage waste in line with the waste hierarchy and reduce the carbon impact of waste. We are also developing a range of measures to encourage waste prevention and reuse, supporting greater resource efficiency.

Our policies will directly affect the extent, nature and treatment of waste streams in the future. We expect that this will include a continuing reduction in the amount of waste sent to landfill and an increase in the products and material that are reused, recycled or recovered.

To assess the need for further infrastructure investment, Defra has carried out forecasts of waste arisings and treatment capacity. The analysis takes into account the considerable uncertainties that there are about future waste trends and infrastructure deployment. The analysis therefore provides a range of forecasts and sensitivity analysis around those forecasts. The Defra forecasts include ranges for future household waste arisings and commercial and industrial waste arisings. The central estimates of the forecast ranges show that overall waste arisings are expected to stay relatively flat over the next few years, with only modest changes forecast between now and 2020. Taking into account expected progress in infrastructure delivery, the analysis concludes that there is an estimated likelihood of over 90% that the EU landfill diversion targets will be achieved for England by 2020⁴⁹.

A range of measures will affect particular waste streams. A [responsibility deal with the hospitality and food service sector](#)⁵⁰ will further reduce food waste and packaging waste and lead to greater recycling of the waste that does arise. The agreement aims to reduce food and associated packaging waste by 5% by the end of 2015 and will be measured by CO₂e emissions. The agreement will also increase the overall rate of food and packaging waste recycled, or sent to anaerobic digestion or composted to at least 70% by the end of 2015.

The Government will encourage local authorities to manage their food waste sustainably, providing technical support and advice on collections and appropriate use and treatment

⁴⁹ www.gov.uk/government/uploads/system/uploads/attachment_data/file/251523/pb14031-forecasting-2020-waste-arisings-norfolk-131017.pdf

⁵⁰ <http://www.wrap.org.uk/content/hospitality-and-food-service-agreement-3>

options that meet local needs. Also the Government will continue to help businesses and consumers to reduce and manage their food waste, for example by sharing evidence, insight and best practice, improving product design and supply chain practice, engaging innovative local partnership approaches to food waste prevention amongst businesses, local authorities and civil society and, providing information and access to skills.

Defra also aims to increase the recycling of waste streams that arise away from the home. Recycling at home has increasingly become the norm, but recycling 'on the go' – in the street and in public places such as stations, shopping centres, conference centres and sporting arenas – is nowhere near as easy. The Waste and Resources Action Programme (WRAP) will support councils who want to work with local businesses to explore how the necessary street infrastructure can be funded to allow recycling on the go to grow. WRAP has developed a [guide on 'on the go' recycling](#)⁵¹ covering costs, different options/models, partnership opportunities and case studies of different models of recycling facilities in the street and other public places.

Defra already has voluntary producer responsibility agreements with sectors of the paper industry. Defra, together with the Scottish and Welsh Governments agreed a new [Responsibility Deal with the direct marketing industry in 2011](#)⁵² which aims to prevent waste by reducing the quantity of direct marketing material necessary to achieve an acceptable return on investment; ensuring direct marketing material is produced and distributed in a manner which minimises waste and carbon emissions, and; encourage and enable consumers to recycle direct marketing material.

On hazardous waste, Defra issued a Strategy for Hazardous Waste Management in England which is based on six high level principles intended to drive the management of hazardous waste up the waste hierarchy. The Strategy includes an assessment of the likely development of hazardous waste streams. It is supplemented by guidance to help producers and waste management companies make informed decisions about the most appropriate point on the hierarchy for their waste to be managed, including consideration of ways in which the arisings of hazardous waste can be prevented or minimised.

Services to householders and businesses will be improved - while delivering environmental benefits and supporting growth - through initiatives which reward and recognise people who do the right thing to reduce, reuse and recycle their waste. We will work with councils to increase the frequency and quality of rubbish collections and make it easier to recycle. We will also provide support to councils and the waste industry in improving collection of waste from smaller businesses; as well as reducing the burden of regulation and enforcement on legitimate business but target those who persistently break the law.

⁵¹ <http://www.wrap.org.uk/content/recycle-go-england>

⁵² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69332/direct-mail-responsibility-deal-pb13668.pdf

All of the actions outlined above will affect future waste streams. We anticipate that waste prevention measures will ensure that the progress that has been made in decoupling growth and waste arisings will continue. The landfill tax will continue to be the main driver for diversion of wastes from landfill. We anticipate that the measures outlined in this plan will achieve continued growth in recycling of key materials such as glass, metals, plastics and paper.