

Hertfordshire Waste Development Framework

Waste Core Strategy & Development Management Policies
Development Plan Document 2011-2026
Adopted November 2012



Spatial and Land Use Planning
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The Technical Appendices, Strategic Environmental Assessment [SEA], Sustainability Appraisal [SA] and Appropriate Assessment [AA] screening reports and Strategic Flood Risk Assessment which accompany this document are available on CD by request or on our website:

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Chapter 1: Introduction

Minerals and Waste Development Framework

- 1.1 The Planning and Compulsory Purchase Act 2004 introduced a development plan system that requires the county council to prepare policies that will deliver the spatial strategy for the future of minerals and waste planning in the county. Collectively, these policies will form the Minerals and Waste Development Framework for Hertfordshire.
- 1.2 The Minerals and Waste Development Framework will comprise a portfolio of Development Plan Documents, which collectively set out the objectives and policies for both minerals and waste management within the county. The waste development plan documents will be as follows:
 - **The Waste Core Strategy and Development Management Policies** Development Plan Document will set out the spatial vision and strategic objectives for waste planning in Hertfordshire. This document will also contain the policies needed to implement these objectives, as well as detailed generic development management policies that will be used to make decisions on waste planning applications. All other waste development plan documents must conform to the Waste Core Strategy.
 - **The Waste Site Allocations** Development Plan Document will identify sites for waste management facilities. This document will include maps and planning briefs for sites identified as existing strategic sites, Employment Land Areas of Search and Allocated Sites.
- 1.3 When finalised, these documents will be referred to as Development Plan Documents (DPD) and together will otherwise be referred to as the Waste Development Framework/Local Plan. The county council may also prepare other documents, including Supplementary Planning Documents, to expand on policies set out in a Development Plan Document or provide additional information.
- 1.4 There have been several stages in the production of this Waste Core Strategy and Development Management Policies Development Plan Document, which are set out below:
 - **Issues and Preferred Options** – The county council consulted on the ‘Issues and Options’ in 2004 and ‘Preferred Options’ in 2007 and formally submitted its Waste Core Strategy to the Secretary of State for independent examination in January 2008.
 - Following an exploratory meeting with the Inspector, it was decided that the Core Strategy had issues with ‘soundness’ and it was subsequently withdrawn in July 2008. The county council then decided to combine the Waste Core Strategy with the Development

Management Policies document to ensure a clearer integration between the documents. This had been highlighted as an issue in the previous round of consultation and addressed concerns raised by the Inspector at the exploratory meeting.

- The revised Preferred Options (**Preferred Options 2**) document was the subject of consultation between 2 November and 18 December 2009. The representations made during that consultation have been used to prepare this pre-submission document.
- **Pre-Submission** – The county council finalised the policies in this document after taking into consideration the views expressed at the revised Preferred Options 2 stage. The pre-submission document was the subject of consultation between 1 November and 22 December 2010. The representations made during that consultation were submitted to the Planning Inspectorate, along with the evidence base on 27 June 2011.
- **Examination** – The examination into the document’s ‘soundness’ took place between 15 and 25 November 2011.
- **Proposed Further Changes** – following discussions at the examination hearing sessions the council submitted a series of proposed further changes.
- **Adoption** – following the examination, the Inspector produced a report and suggested main modifications. The county council has incorporated the necessary changes to enable adoption of the Development Plan Document.

Purpose of the Waste Core Strategy

- 1.5 The Waste Core Strategy sets out the vision, objectives and spatial strategy for waste planning in Hertfordshire up to 2026, providing the basis for a longer term spatial strategy that complements the county council’s Joint Municipal Waste Management Strategy to 2026. To deliver the vision, the document provides strategic objectives for the county, a spatial strategy, core policies, and a monitoring and implementation framework to test its delivery. Working with its partners and the local community, the county council will use the Waste Core Strategy to ensure the provision of appropriately located facilities to meet Hertfordshire’s waste management needs.
- 1.6 The Waste Core Strategy has to demonstrate that it accords with national policies and that it relates to the distinctive context of Hertfordshire. The core policies in this document provide an overarching strategic dimension.
- 1.7 The document deals with the spatial and land use dimension of waste management but also provides a platform of support to cooperate with other organisations to implement waste management programmes in the county. In particular it outlines a strategy to guide the development of waste facilities. This document does not deal directly with the waste

management activities of the county council and its partners. However, the policy approach is consistent with their aims.

Purpose of the Waste Development Management Policies

- 1.8 The Waste Development Management Policies provide guidance on the issues that will be considered when determining planning applications for waste management development. This part of the document provides the more local and operational policies that will guide the county council's decision making when it considers waste planning applications.
- 1.9 The Development Management Policies also provide guidance to the public and developers regarding the criteria that are required to manage waste developments. Planning applications are determined in accordance with the Development Plan which not only comprises the Minerals and Waste Development Framework but also the district councils' Local Development Frameworks. The National Planning Policy Framework is also a material planning consideration.
- 1.10 The Development Management Policies complement the Core Strategy policies and the two should be used in conjunction when considering applications on existing sites, allocated sites and proposed sites. These policies may also enable the improvement of operating practices at lawfully established sites if and when a new application is submitted.
- 1.11 The policies are generally not specific to particular waste types or treatments, but rather deal with the potential impacts that may arise from waste developments. This provides flexibility as the county council intends to encourage new technologies and innovation and therefore not eliminate or restrict any process that is not currently utilised or available.

The Process of Managing Development

- 1.12 Development Management is the process which shapes the development and use of land. It involves the consideration of planning applications, the monitoring of development as it takes place and, potentially, enforcement action where breaches of planning permission have occurred. In Hertfordshire, where there are two tiers of local government, all decisions on waste planning applications are taken by the county council.

Community Strategy

- 1.13 Working with its partners under the banner of Hertfordshire Forward, the county council has developed a countywide Sustainable Community Strategy (2008 – 2021). Each of Hertfordshire's ten district and borough councils also has their own Sustainable Community Strategy. As these documents have implications for the development and use of land, the Waste Core Strategy and Development Management Policies DPD must reflect the aims of all the community strategies in Hertfordshire in driving forward its own aims and objectives in relation to waste management. This involves working closely with local authorities to integrate waste issues within their Local Development Frameworks/Local Plans and any Neighbourhood Plans developed at the local level, and also tackling cross boundary waste issues to achieve integrated spatial planning for waste, and contributing to the strategic objectives.
- 1.14 The key themes in the community strategies which are particularly relevant to the Waste Core Strategy and Development Management Policies DPD include: health, economic prosperity, community safety, sustainable transport, natural resource efficiency, waste minimisation, climate change, recycling and composting.

Minerals and Waste Development Scheme

- 1.15 The Minerals and Waste Development Scheme provides further detail about the documents that the county council will produce and the programme for their preparation and review. The adopted scheme can be periodically revised when a new programme is required and is monitored on an annual basis. It can be found at <http://www.hertsdirect.org> or by contacting the county council directly.

Community Engagement and Consultation

- 1.16 The county council is committed to consulting with and involving the community in preparing this document. The county council adopted its revised Statement of Community Involvement in February 2010. The Statement of Community Involvement sets out the county council's strategy for involving and consulting the appropriate stakeholders in the preparation of a variety of documents. Copies of the Statement of Community Involvement are available on request from the county council and on the website at: www.hertsdirect.org
- 1.17 The county council has so far carried out a series of consultations on the Minerals and Waste Development Framework:

October 2004 – November 2004	Waste Development Plan Issues & Options Consultation
------------------------------	--

May 2007 – June 2007	Waste Core Strategy DPD: Preferred Options consultation
January 2008 – March 2008	Waste Core Strategy DPD: Submission consultation Waste Development Policies DPD: Preferred Options consultation Waste Site Allocations DPD: Preferred Options consultation
November 2009 – December 2009	Waste Core Strategy and Development Management Policies DPD: Issues and Preferred Options 2 consultation Waste Site Allocations DPD: Issues and Preferred Options 2 consultation
November 2010 – December 2010	Waste Core Strategy and Development Management Policies DPD: Pre-Submission
November 2011	Examination Hearing Sessions

- 1.18 The county council carried out a number of formal public consultations at various stages of the development of the Waste Core Strategy and Development Management Policies DPD and also undertook stakeholder events and further informal consultations on a number of issues with regard to the Minerals and Waste Development Framework. A summary of the previous consultations which have informed the production of this document, is available at: www.hertsdirect.org

Monitoring and Implementation

- 1.19 As a Local Planning Authority the county council is required to produce a Monitoring Report outlining how policies are being implemented and how effective they have been. The report will be based on the monitoring framework set out in chapter 5 of this document and will identify any changes that are needed if a policy appears not to be working or if targets are not being met.
- 1.20 The spatial strategy and strategic policies in the Waste Core Strategy are based on the currently available information, although it must respond to the changing needs and circumstances within the county. Monitoring will assess the Waste Core Strategy's effectiveness in delivering the spatial vision and objectives, and in implementing the spatial strategy. Indicators have been set for the criteria-based policies within the Waste Development Management Policies where applicable, although there are no targets to monitor as planning permissions are determined on their own merits. Some of the indicators will be influenced by factors beyond the Waste Core

Strategy. However, given that the vision and objectives are underpinned by the principles of sustainable development, the indicators provide the basis for determining if the spatial strategy needs to be maintained or changed.

- 1.21 Indicators have been developed to provide a consistent basis for monitoring the performance of this strategy against the spatial objectives. These indicators have been derived from the core policies and the recommendations of the Sustainability Appraisal. The targets and relevant indicators for these are set out after each policy within the document.
- 1.22 The indicators and implementation framework as set out in Chapter 5 have been chosen to provide a snapshot of overall progress and to focus on the delivery of key waste development provisions.

Strategic Flood Risk Assessment

- 1.23 National planning policy advises that all Local Planning Authorities should produce a Strategic Flood Risk Assessment (SFRA). The county council has produced a level 1 SFRA which is principally a desk-top based study that makes use of existing information. The Hertfordshire SFRA has therefore been informed by individual SFRAs that have been produced at the district level.
- 1.24 The Hertfordshire SFRA summarises key flood risks in each of Hertfordshire's districts and flood risk management policy recommendations that form part of the relevant Catchment Flood Management Plan for the area. The Hertfordshire SFRA is a living document and will be updated when new applicable flood data becomes available.

Sustainability Appraisal and Appropriate Assessment

- 1.25 The Waste Core Strategy and Development Management Policies DPD is required to be subject to Strategic Environmental Assessment (SEA) under the Environmental Assessment of Plans and Programmes Regulations 2004 which implements at the national level, the requirements of European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment.
- 1.26 At each stage of the production of this Waste Core Strategy and Development Management Policies document the policies and proposals have been subject to a Sustainability Appraisal (SA), including Strategic Environmental Assessment. The recommendations of the appraisals have informed the current spatial strategy and policies. Chapter 3 of the SA Report sets out how reasonable alternatives have been dealt with in the preparation of the Waste Core

Strategy and Development Management DPD and the SA. In line with the regulations, the SA report identifies the 'significant effects' on the environment of implementing the plan and considers how reasonable alternatives have been dealt with in the preparation of the plan.

- 1.27 The Sustainability Appraisal to accompany this document is available on the county council's website and on request from the county council.
- 1.28 In addition, where a land use plan, either alone or in combination with other plans or projects, is likely to have a significant effect on European nature conservation sites (Special Areas of Conservation and Special Protection Areas), an 'Appropriate Assessment' must be made of the implications of the plan on the conservation objectives for the site, in accordance with requirements of the European Habitats Directive.
- 1.29 There are a number of Special Protection Areas and Special Areas of Conservation and a Ramsar¹ site in Hertfordshire and so an Appropriate Assessment screening has been carried out in order to establish whether a full Appropriate Assessment was needed. The Appropriate Assessment Screening report identified a number of potential impacts and this DPD takes account of the findings and addresses the recommendations within specific policy proposals. The more specific recommendations set out within the Appropriate Assessment Screening are addressed within the Development Policies and will also be addressed in the site specific detail in the Waste Site Allocations Development Plan Document.

¹ Ramsar – A statutory designation named after the international convention in Ramsar, Iran.

Chapter 2: Spatial Vision, Objectives and Strategic Issues

The Spatial Vision

- 2.1 This Plan sets out the county council's spatial vision for the future and the objectives through which it will be achieved.
- 2.2 The following vision has been developed through consultation with key partners and stakeholders.

Vision for Waste Management in 2026

Through engagement with the community and working with partners, by 2026, Hertfordshire will be waste aware and responsible, and the county council and its partners will lead the county in its adoption, promotion and implementation of the waste hierarchy. Members of the general community, industry, local councils and the county council alike will place significant emphasis on waste prevention, reduction, reuse and recycling, with waste disposal to landfill minimised. A mix of established, newer emerging technologies and waste recycling markets that maximise recovery value are being embraced to ensure that waste is innovatively and effectively managed within Hertfordshire.

Waste management facilities will be well designed, appropriately sized and sensitively located so that they reduce the environmental and social impacts, meet the needs of communities and businesses, and seek enhancement of the locality. Sufficient waste management facilities (to reduce, reuse, recycle) will be located as close as practicable to the origin of waste, making use of sustainable transport links, where practicable, to ensure existing and new communities deal with their own waste, especially in relation to areas where future growth is likely to occur.

Strategic Objectives

- 2.3 In addition to meeting national objectives, the following strategic objectives have been developed specifically for Hertfordshire to ensure a sustainable future for waste management:

SO1. To promote the provision of well designed and efficient facilities, that drive waste management practices up the waste hierarchy and are located to ensure no harm to human health and the environment, and which reduce waste volumes to be disposed in landfill;

SO2. To locate waste recycling, handling and reduction facilities as close as practicable to the origin of waste;

SO3. To facilitate the increased and efficient use of recycled waste materials in Hertfordshire (for example as aggregate);

SO4. To facilitate a shift away from road transport to water and rail transport as the principal means of transporting waste;

SO5. To prevent and minimise waste, but where waste cannot be avoided, maximise the recovery value (including energy and heat) from waste;

SO6. To work with all partners in the county to encourage integrated spatial planning, aligning with other local waste strategies and local authority objectives which take account of waste issues, recognising that waste management generates employment and is part of the infrastructure which supports businesses and communities; and

SO7. To work with all neighbouring waste authorities to manage the equivalent of the county's own waste arisings.

- 2.4 The policies in this document will help meet these objectives. Monitoring is a requirement, to assess how effectively the policies are being implemented. All of the policies will be monitored using the indicators set out in the tables following each policy.

Key Hertfordshire Characteristics

- 2.5 Hertfordshire is an attractive, buoyant and prosperous place to live, work and visit. A high quality of life, high per capita income, low unemployment and high quality natural and built environments make a significant contribution to the special character of Hertfordshire. At the same time, it is important to recognise that there are challenges which place pressures upon Hertfordshire's special character.
- 2.6 Hertfordshire is one of Britain's most densely populated counties. There are about 462,168 dwellings within Hertfordshire and a

population of just over 1 million² that broadly resides in the south and west of the county, although Hitchin and Stevenage are significant towns located in the north of the county. There are numerous historic towns and villages and important historic and natural assets spread around the county. Green Belt land covers over half of the county and there are various sites of important national and international environmental and ecological designations. These natural and built environments are, however, subject to pressures.

- 2.7 Hertfordshire's location just north of London and within the London-Stansted-Cambridge-Peterborough Corridor places pressure on its towns and villages to grow in order to meet housing and employment needs and demands. Hertfordshire also faces pressures from neighbouring areas including the possible urban extension to the north of Harlow; proposed extension to Luton airport; and proposals for additional development around Luton and Dunstable.
- 2.8 Although generally beneficial, Hertfordshire's close proximity to London does present some challenges and problems. In addition to the high level of out commuting, the Economic Development Strategy for Hertfordshire³ notes that the county is heavily dependent on the London economy and on large companies, which could, as global operators, relocate away from Hertfordshire. It therefore sets out a strategy to ensure continuing prosperity for the county.

Society and Economy

- 2.9 Hertfordshire's population is estimated to have grown by about 7.1% between 2001 – 2010 to approximately 1.11 million, with natural population growth accounting for 54% of this increase and migration accounting for the rest⁴. Population projections produced by the Office for National Statistics show that Hertfordshire's population is expected to increase by 20.6% to 1.3 million in 2033. Welwyn Hatfield is expected to see the greatest increase at 35.2%, with Stevenage and Dacorum seeing the smallest increases in population, at 10.8% and 13.9% respectively⁵. These changes, combined with changes in household trends, have resulted in a need and demand for more housing and jobs.
- 2.10 Hertfordshire is a relatively prosperous county. This prosperity is generally reflected by the disposable household income per head in Hertfordshire, which is among the highest in England. This grew by 75% between 1995 – 2008, leading the rest of the region and England. Over the same period, Hertfordshire's employment rate has remained high and unemployment low in comparison to the region and the UK, and the number of new business registrations in Hertfordshire has steadily grown, exceeding performance in the region and the UK. Economic forecasts for the region, as shown below, indicate that

² Quality of Life in Hertfordshire 2010 report

³ Hertfordshire Economic Development Strategy 2006-2011

⁴ Office for National Statistics, Mid-Year population estimates 2010.

⁵ ONS Sub national Population Projections (SNPP) for England, May 2010

significant job growth is expected within Hertfordshire between 2008 and 2026.⁶

Table 1: Projected jobs growth for Hertfordshire 2008 – 2026

Local Authority Area	Total jobs 2008	Projected jobs 2026	% jobs growth 2008 – 2026
Hertfordshire	584, 200	646,400	10.6%
Broxbourne	41, 000	43, 000	4.8%
Dacorum	70, 800	79, 900	12.9%
East Herts	68, 900	74, 500	8.1%
Hertsmere	51, 400	63, 800	24.0%
North Herts	53, 600	56, 300	5.1%
St Albans	79, 100	85, 600	8.3%
Stevenage	46, 000	55, 200	20.2%
Three Rivers	41, 600	44, 700	7.5%
Watford	57, 000	59, 000	3.4%
Welwyn Hatfield	75, 000	84, 500	12.7%

2.11 These figures are the product of a regional economic forecasting model and although some local authorities within Hertfordshire have disputed these projections they are the only figures at present which provide a complete picture for future employment growth for the county.

2.12 The total number of net completions recorded in the year 2009/2010 was the lowest for 20 years, a reduction of 23% on the previous monitoring year and 36% less than the most recent peak in 2007.⁷ However, the underlying pressures for further housing development remain.

Landscape and Geology

2.13 Hertfordshire’s geology is largely chalk of the Cretaceous period, overlain in the south and east by London Clay, a sand and gravel belt running north-south through the centre of the county and small areas of Gault Clay on the north and north-west. Throughout much of the county the superficial deposits which overlay the solid geology complicate the picture. These include the clay-with-flints of much of

⁶ Insight East East of England Forecasting Model Spring -2010 available at: <http://www.insighteast.org/viewArticle.aspx?id=18138>

⁷ Quality of Life Report 2010

west Hertfordshire including the Chilterns dip slope; the boulder clay of central and east Hertfordshire; and the gravels of the Vale of St Albans and the river valleys⁸.

Ecology and Biodiversity

- 2.14 Hertfordshire has many important habitats protected under legislation and local policy. These include the Chiltern Hills Area of Outstanding Natural Beauty; three sites of international importance; 43 Sites of Special Scientific Interest (SSSIs); and 22 Local Nature Reserves. By December 2009 there were 1,954 wildlife sites covering about 10% of the county⁹.

Water

- 2.15 The county lies within two Environment Agency regions - the Anglian and Thames - and straddles two main river catchments, the Colne in the west and Upper Lee in the east.
- 2.16 The East Anglia region is the driest in England and Wales. It exhibits large areas where no further water is available during summer and some areas where damage is already occurring. In general, winter surface water is available across the region.
- 2.17 The Thames region also suffers from demand pressures with summer surface water now fully committed and, generally, no further unconstrained consumptive use can be licensed. Whilst winter surface water resources in the Lee catchment are generally available, parts do suffer from periods of unsustainable abstraction in terms of winter surface water availability.
- 2.18 Groundwater is important for water supply and for maintaining river flows and wetlands. In order to protect groundwater, the Environment Agency has defined Groundwater Protection Areas, where the Agency seeks to restrict certain types of development. Groundwater protection zones cover all the land draining the groundwater resource. These are characterised into major and minor aquifers and non-aquifers. Within the county there is a major aquifer which covers North and East Hertfordshire and also extends east into Essex. Groundwater Source Protection Zones are also located around existing major abstractions for public or industrial supplies.
- 2.19 The Environment Agency flood maps indicate that there are areas at risk of flooding in Hertfordshire based on indicative natural flood plains. These represent land which lies beneath the fluvial 1:100 year return period water level.

⁸ This description is taken from the 50 Year Vision for the Wildlife and Natural Habitats of Hertfordshire: A local Biodiversity Action Plan prepared by Herts and Middlesex Wildlife Trust, April 1998.

⁹ Quality of Life Report 2010

Air quality

- 2.20 In Hertfordshire, Nitrogen Dioxide, Ozone, Carbon Monoxide and Particulates (PM₁₀) are monitored. The running annual mean PM₁₀ concentrations recorded at all monitoring sites during 2009 remained relatively stable with the end of year levels similar to those at the start. This follows a two year period of downward trend during 2007 and 2008¹⁰.
- 2.21 Local authorities in Hertfordshire have recently completed air quality 'review and assessments'. Where it is predicted that an objective limit for a pollutant will be exceeded and significant public exposure is identified then an Air Quality Management Area must be designated, and an action plan drawn up to improve air quality.

Transport

- 2.22 Hertfordshire's dense population, spatial characteristics and high car ownership contribute to severe capacity problems on the county's road network. Continuing growth in road traffic in Hertfordshire poses a serious threat to the quality of life in the county. The significant problems of safety, congestion, access and the environment can all be linked to traffic flows that on the motorways and trunk roads are over twice the national average and on the principal (A) roads are 80% higher than the national average¹¹.
- 2.23 Whilst traffic growth reduced to 1% per year over the period 2003 – 2005, traffic flows in the county are forecast to grow by around 11% between 2010 and 2031¹².
- 2.24 Hertfordshire's spatial characteristics have a significant effect on local transport. The settlement pattern of many medium sized towns separated by only a few miles and no dominant centre that acts as the core of the transport network has resulted in a complex transport interaction between all of the towns.

Climate Change

- 2.25 Climate change is a serious threat to our environment, society and economy. Whilst climate change is a natural process, it is almost certain that human activities are enhancing and accelerating this through the release of greenhouse gases. Further, it is accepted now that climate change will occur to a certain extent regardless of whether or not reductions in greenhouse gas emissions are realised now and in the future.
- 2.26 Small changes in temperature can mean significant changes in our climate. The global average temperature has risen by about 1°C over

¹⁰ Quality of Life Report 2010

¹¹ Hertfordshire's Local Transport Plan 2011-2031, April 2011

¹² Hertfordshire Transport Facts 2010, August 2011

the past century¹³, with much of this occurring as rapid warming since the 1970s. However, climate models now suggest that we can expect increased warming of up to 6°C by the end of this century if we do not act now to reduce our greenhouse gas emissions.

- 2.27 Measures to tackle climate change nationally have already been introduced through the Climate Change Act (2008), with a legally binding target to cut UK emissions by 34% by 2020 and at least 80% by 2050. Hertfordshire has a target to make a 9.1% reduction in its CO₂ emissions by 2011. This is likely to be reviewed in the near future, with an emphasis on local policy and planning supporting and contributing to the national 80% target.
- 2.28 Transport related emissions are by far the biggest contributor as far as waste management is concerned. As such, all new and existing waste management activities and decisions will need to consider how they can reduce or limit the emissions they generate, paying particular regard to transport related emissions. Further, climate change is expected to happen to a certain extent regardless of whether or not reductions in carbon dioxide emissions are achieved. As such, all new waste management facilities will need to be resilient to climate change impact risks that arise over the life of the waste facility.

Issues facing the county

Pressures for growth

- 2.29 Through the Localism Act increased power is to be given to local authorities to determine how much housing will be built within their local areas. It is anticipated that the level of growth will be broadly similar to that previously identified in the Regional Spatial Strategy (RSS) review and so this document has been prepared based on existing information and data available. In line with Government guidance; data and information prepared by local authorities, industry partners and the Regional Waste Technical Advisory Body for the East of England as part of the RSS process, has been used as part of the evidence base.
- 2.30 At the time of this change in the Government's approach to local planning, the county council commissioned SLR Consulting to help calculate and project waste figures based on the prevailing situations, including the Government's intention to revoke Regional Spatial Strategies. The figures used in planning for waste in this document are the outcome of this work, which also draw on the work undertaken as part of the former review of the Regional Spatial Strategy.

¹³ Solomon, S., D. *et al* (2007) Technical Summary. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Infrastructure

- 2.31 Hertfordshire faces key infrastructure issues, including the implications of growth on transportation and wastewater infrastructure. The county's road network is heavily influenced by long-distance through traffic, with large volumes of through movements on the M1, A1(M) and M25. Travel to and from Stansted and Luton airports, as well as Heathrow Airport, provides an additional strain for Hertfordshire's radial road network. East-west links, in particular passenger transport, are less developed and in need of improvement.
- 2.32 This complexity has significant implications for waste management and feasibility of site selection for different facilities. The industry needs access to well connected transport networks, for both collection and disposal of waste.
- 2.33 The Secretary of State under the previous government also proposed a programme of water cycle and river cycle studies to address the water supply and wastewater treatment issues relating to proposed likely development.
- 2.34 Specific reference was made to Rye Meads Sewage Treatment Works which would need to cater for growth at a number of key development areas in Hertfordshire, and at which there is known to be significant capacity constraints. The Water Cycle Study concludes that there are no overwhelming technical constraints in terms of the water cycle to deliver predicted growth within the Rye Meads catchment area. However, this does rely on investment to ensure that necessary upgrades take place. There are, however, concerns to address the predicted growth after 2021, that is, the last 5 years of the plan period, which will require further study and possibly, additional investment. Three Valleys Water have identified that they need to accelerate the use of water meters in order to unlock existing capacity to facilitate growth at Stevenage. Furthermore, Thames Water Utilities have identified the need for sewerage upgrades in the Harlow and Stevenage areas, but the funding has not yet been allocated due to uncertainties regarding the location of the new developments in these areas.

Waste generation

- 2.35 All households, businesses and industries in Hertfordshire produce waste. Due to the lack of up-to-date waste data, particularly for Commercial & Industrial (C&I) and Construction & Demolition (C&D) waste, it is difficult to provide a snapshot of the waste generated in the county in any particular year. Data available in 2010/11 shows that the county generated 537,054 tonnes of Local Authority Collected (LAC) waste of which:
- 426,690 tonnes of household waste was collected by District and Borough Councils through kerbside services and bring banks;
 - 28,494 tonnes of collected non-household (commercial) waste

- 69,785 tonnes of waste was collected by the county council at the Household Waste Recycling Centres (HWRC);
 - 12,263 tonnes of non-household waste (construction and demolition, trade and asbestos) collected by the county council¹⁴.
- 2.36 The most up to date data from Defra¹⁵ provided regional estimates for Commercial and Industrial waste and so more Hertfordshire specific data has been used from a previous Environment Agency survey¹⁶. This data indicates that the county produces over 1 million tonnes of commercial and industrial waste per year.
- 2.37 Waste is also produced in the county from construction and demolition and this equates to approximately 1.5 million tonnes per year¹⁷.
- 2.38 In 2010/2011, 47% of the county's Local Authority Collected waste was recycled and composted¹⁸. The majority of the residual Local Authority Collected waste is currently exported to surrounding waste authorities (including Berkshire, Buckinghamshire, Cambridgeshire and North London) for disposal to either landfill or energy from waste facilities (thermal treatment), leaving a smaller amount to be disposed of in the county at Westmill Landfill Site, near Ware.
- 2.39 Measures are already in place to reduce the amount of waste produced and to reuse or recycle material wherever possible. However, there is an ongoing challenge to introduce better, more sustainable ways of dealing with waste to reduce dependence on landfill. Existing waste management facilities in Hertfordshire have insufficient capacity to secure the maximum recovery of waste (recycling, composting or energy generation). A number of new facilities will be needed to ensure a more sustainable approach to waste management. While landfill and landraise are the least preferred options, there will still need to be some provision to deal with residual waste in this way during the plan period.
- 2.40 The existing Westmill landfill site in the county has planning permission until 2017. This site is currently operating at below its annual permitted capacity and has considerable void space remaining, however planning permission would be required before this could be utilised. In addition to this, new residual treatment capacity is required in the county.
- 2.41 There is a substantial amount of research and data available for local authority collected waste, although less for non – LAC waste such as; Commercial & Industrial and Construction & Demolition waste.
- 2.42 The forecasting of waste figures is based on the most reliable data available for each waste stream and a number of assumptions. The RSS review housing targets for each local authority have been applied

¹⁴ Waste Management Unit, November 2011

¹⁵ Defra - <http://www.defra.gov.uk/statistics/environment/waste/wrfq03-indcom/>

¹⁶ EA - <http://www.environment-agency.gov.uk>

¹⁷ <http://www.eera.gov.uk/publications-and-resources/studies/topic-based-studies/waste-studies/construction-and-demolition-waste-study/>

¹⁸ Waste Management Unit, April 2011

to Local Authority Collected waste. The East of England forecasting model, Insight East, forecasts in spring 2010 have provided employment projections applied to Commercial & Industrial and Construction & Demolition waste streams. The baseline for forecasted landfill input rates and remaining capacity is provided by Environment Agency 2008 data.

2.43 Waste reduction measures are assumed to achieve a target of 1 tonne of Local Authority Collected waste per household per year and recycling rate assumed to reach 60% in 2031. Recycling rates are predicted to be 55% for Commercial waste and 60% for Industrial waste with 10% of Commercial and Industrial waste projected to be disposed in landfill in 2026¹⁹. SLR forecasts suggest that there will be 86% diversion of Construction & Demolition waste from landfill in 2026.

2.44 This plan must cover the management of a range of waste streams, alongside the responsibilities for dealing with waste. Other classifications to be considered in the Waste Development Plan include:

- Clinical, difficult and special wastes
- Hazardous waste
- Waste water and sewage sludge
- Liquid waste and dredging
- Nuclear and radioactive waste
- Contaminated land waste, and;
- Agricultural waste

2.45 The range of waste management facilities to manage such waste includes:

- Waste separation and recycling facilities
- Composting facilities
- Anaerobic digestion facilities
- Thermal treatment facilities (with or without energy and/or heat recovery)
- Mechanical/biological treatment facilities
- Emerging technologies
- Transfer stations
- Landfill.

2.46 The issues facing the county in terms of waste can be summarised as:

- An increase in population and households producing waste;
- Changing attitudes towards reduction of waste;
- Sustaining the trend for increasing recycling;
- A need for an appropriate spread of facilities, including a variety of types and locations;

¹⁹ SLR Updated Waste Forecasts for Hertfordshire Oct 2011

- The reduced availability of landfill void space;
- Environmental constraints restricting availability of additional landfill;
- Extensive coverage of Green Belt, restricting the land available for the development of waste management facilities;
- Utilising other waste technologies to allow the movement away from landfill;
- The lack of sustainable transport modes;
- Existing congestion on the roads;
- A need to reduce air pollution and accord with the provisions of the Habitats Directive;
- Competing demands for use of land at both district and county levels;
- A need to reduce greenhouse gas emissions associated with waste management; and
- A need to provide waste facilities that are resilient to a changing climate.

Table 2: Strategic Objectives and Policy Links to Issues Identified

Issue	Option	Strategic Objectives	Policy
Increase in population and households producing waste	Encourage households to reduce, reuse and recycle; Variety and suitably located waste management facilities in relation to urban areas; Make sure there are sufficient and well located bins stores on site, household waste recycling centres and bring schemes.	SO2, SO3, SO5, SO6, SO7	1, 2 & 5
Changing attitudes towards reduction of waste	Encourage recycling through waste aware campaign; encourage reduced packaging;	SO2, SO 3, SO5, SO6, SO7	1, 2 & 5

Issue	Option	Strategic Objectives	Policy
Sustaining the trend for increasing recycling	Ensure a network of HWRCs and waste transfer and processing stations; Ensure developers recycle on site through Site Waste Management Plans (SWMPs); Encourage recycling through waste aware campaign.	SO2, SO3, SO5, SO6, SO7	1, 2 & 5
Need for an appropriate spread of facilities, including a variety of types and locations	Consider location in the identification of waste site allocations; Plan for all types of waste facilities; Take a flexible approach with the type of facilities that may come forward; Identify capacity.	SO2, SO4, SO5, SO6 & SO7	1, 2, 3, 5, 6, 8, 12, 16 & 17
Reduced availability of landfill void space due to environmental constraints	Encourage reduction, recycling and reuse of materials; Embrace alternative technologies to reduce residual waste; Well designed facilities; Cross boundary movement of waste.	SO1, SO3, SO5 & SO7	1, 7, 8, & 9
Extensive coverage of Green Belt, restricting the land available for waste developments	Well designed, sized and sensitively located facilities; Encourage the use of brownfield land through employment land allocation of sites; Feed into District/Borough reviews of Green Belt land.	SO1, SO5, SO6 & SO7	1, 5, 6, 7, 8, 9, 10 & 11

Issue	Option	Strategic Objectives	Policy
Competing demands for land at district and county levels	Use sequential approach to allocation of sites in industrial/employment areas; Ensure appropriate safeguarding of existing sites and preferred locations in relation to adjacent development.	SO6 & SO7	1, 5 & 11
Finding alternatives to allow the movement away from landfill	Embrace alternative technologies to reduce residual waste; Understanding the needs of waste management dealing with Local Authority Collected waste; Restoration of sites to accept inert waste.	SO1, SO3, SO5 & SO7	1, 7, 8, 9 & 14
The lack of sustainable transport modes	Promote other modes of transport; Limit the use of roads already heavily congested; Consider the movement of waste when allocating sites; Take into account proximity of waste arisings to reduce journeys; Co-locate facilities	SO2, SO4	1, 2, 4, 7 & 8

Issue	Option	Strategic Objectives	Policy
Existing congestion on the roads	Limit the use of roads already heavily congested; Consider the appropriate movement of waste when allocating sites; Conserve important environmental assets; Take into account proximity of waste arisings to reduce journeys.	SO2 & SO4	7, 8, 2, 3, 9, 13, 15, 17, & 19
Need to reduce air pollution and accord with the provision of the Habitats Directive	Seek to ensure waste is dealt with as close to its source as possible; Encourage well designed and highly efficient facilities; Sensitive to environmental constraints and habitats within.	SO1, SO2 & SO4	1, 3, 4, 7, 9, 10, 11, 13, 14 & 19
Need to reduce greenhouse gas emissions associated with waste management	Seek to ensure waste is dealt with as close to its source as possible; Encourage well designed and highly efficient facilities; Sensitive to environmental constraints and habitats within.	SO1, SO2 & SO4	1, 3, 4, 7, 9, 13, 12, 10, 14 & 19
Need to provide waste facilities that are resilient to a changing climate	Encourage well designed and highly efficient facilities; Ensure waste development facilities have regard to the climate change risks that could affect the development	SO1, SO2, SO3, SO4, & SO5	1, 7, 8, 9, 10 & 14

Chapter 3: Waste Picture within Hertfordshire

- 3.1 The types of waste that have to be planned for include Local Authority Collected (LAC) waste, Commercial and Industrial (C&I) and Construction and Demolition (C&D) waste. In light of the issues identified in Chapter 2, and the work carried out by the East of England Regional Technical Advisory Body in reviewing the East of England Plan and SLR Consulting, the following picture can be drawn of existing and future waste management within Hertfordshire.
- 3.2 Table 3 uses data from the Environment Agency Waste Data Interrogator 2010 and provides an overall picture of the waste flows currently imported into and exported from Hertfordshire. Commercial & Industrial and Local Authority Collected waste streams are recorded for landfill, treatment, material recycling and transfer.
- 3.3 It is important to note that there are limitations with the data, and that data showing waste received into the county is more reliable than that recorded as removed from the county. In addition there is an element of double counting as waste is treated and transferred to final disposal and therefore can be registered twice when transported around the county or transferred through the county when bulked up and exported out. However there is currently no definitive means of eliminating this double counting.

Table 3: Hertfordshire's waste imports and exports in 2010 (tonnes)²⁰

Authority	Waste imported into Hertfordshire	Waste exported from Hertfordshire
<i>Neighbouring authorities</i>		
Central Bedfordshire & Bedfordshire	14,699	181,903
Luton	1,999	19
Buckinghamshire	40,994	108,695
Cambridgeshire	6,571	34,718
Essex	87,152	41,859
London	267,942	68,941
<i>Sub-Total</i>	<i>419,357</i>	<i>436,135</i>
<i>Other authorities in the country</i>	<i>591,794</i>	<i>2,779,664</i>
<i>GRAND TOTAL</i>	<i>2,459,257</i>	<i>3,498,256</i>

²⁰ Environment Agency Waste Data Interrogator 2010

Herts own waste dealt with (excluding transfer)	1,006,704	127,187
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Note: Data limitations -

Data entry for both origin and destination is rather patchy. The Environment Agency suggests that where the origin of more than 15% of inputs cannot be accounted for, and no explanation can be found from another source, movement analyses should be treated with caution.

Site output data (type and quantity of waste) is not subject to the same quality checks as site input data.

Waste output is not mandatory and there were incomplete entries in 2006. This data suffers from the same problems as origin data in that the data entry form permits free text entry. Data accuracy/usability is higher at county level.

Output data on fate has similar limitations on completeness. Only a restricted number of 'fates' are offered for selection and not aligning with current disposal and recovery options makes it difficult to track movements to secondary waste management options.

Local Authority Collected Waste

Table 4: Actual Local Authority Collected waste arisings and treatment (2010/2011)²¹

Treatment	tonnes	%
Recycled	131,083	24.3
Composted	123,220	23.0
EfW Disposal	41,318	7.7
Landfilled	241,847	45.0
Total	537,468	100.0

- 3.4 In 2010/2011, 47.3% Local Authority Collected waste was recycled and composted, with a further 7.7% sent for disposal at the Edmonton Energy from Waste facility, leaving 45% disposed of to landfill. Hertfordshire is therefore already close to meeting the national target of recycling and composting 50% of household waste by 2020 and the local target set out in the Hertfordshire Joint Municipal Waste Management Strategy to recycle at least 50% of household waste by 2012. The amount of Local Authority Collected waste has been falling since 2006/07 because of social and economic factors. These include the Herts Waste Partnership's waste minimisation initiatives (resulting in increased recycling and composting), changes in the provision of waste collection facilities and the general economic climate.
- 3.5 Recycling levels at the county council's Household Waste Recycling Centres have shown a significant increase since the introduction of new operation contracts. Results for the first quarter of 2010/2011 put

²¹ Waste Management Unit April 2011

the recycling level at around 74% (compared to 69% in 2009/10) and, as a consequence, the county council's contribution towards the Hertfordshire Waste Partnership's 50% recycling target by 2012²², is significant. Kerbside collection schemes and schemes for kitchen waste are now countywide which has increased the recovery rate in line with the targets. Recycling rates have been quick to increase following the introduction of such schemes, however, reaching more stretching targets will be increasingly challenging.

Table 5: Composting capacity (existing and planned totals) (tonnes rounded)²³

Existing provision	Annual (tonnes)	Comments
Cumberlow Green	40,000	Contract until 2023
Ridge/Redwell Wood Farm	48,500	Contract until 2024
2 out-county contracts (Harefield, LB Hillingdon and St Ives, Cambs)	50,000 (total)	Harefield contract until 2014 St Ives contract until 2018
Total existing capacity	138,500	
Total projected requirement during plan period	178,500	
Shortfall	40,000	(178,500 minus 138,500)
Requirement to bring external contracts in-county	50,000	Harefield and St Ives contracts
Total new requirement in plan period	90,000	Shortfall plus external contracts being brought in county

- 3.6 Development of a new in-vessel composting facility at Ridge/Redwell Wood Farm, near Potter's Bar, is now operational and processing organic waste from five districts/boroughs (Hertsmere, Broxbourne, St Albans, Welwyn Hatfield and Stevenage). The existing plant at Cumberlow Green is also now fully operational with a total annual capacity of 40,000 tonnes and takes organic waste from two districts (East Herts and North Herts). Organic waste from Watford and Three Rivers is currently taken to Harefield (London) and St Ives (Cambridgeshire) accepts waste from Dacorum.
- 3.7 The Hertfordshire Waste Partnership is looking to replace the current out-county composting capacity of 50,000 tonnes with new capacity within the county that could also include anaerobic digestion. In addition, the Hertfordshire Municipal Waste Spatial Strategy (July

²² Joint Municipal Waste Management Strategy 2007

²³ As outlined in the Municipal Waste Spatial Strategy (July 2009)

2009) identifies a need for a further 50,000 tonnes capacity which is sought within the county. These requirements are spatially identified on the Key Diagram (Appendix A) by the two areas of search for composting or other organic waste recovery facilities such as anaerobic digestion, to provide a total annual capacity of 178,500 tonnes by the end of the Plan period. Their broad location is based on complementing the two existing in-county facilities and drive times from the main centres of collection. The additional organic waste treatment facilities will result in all of Hertfordshire's ten waste collection authorities being able to treat organic waste within the county.

Other Treatment and Landfill Capacity

- 3.8 In 2010/11, 241,847 tonnes of the 537,468 tonnes of Local Authority Collected waste was landfilled. No matter how successful initiatives are to reduce, reuse and recycle waste, there will be some residual waste that will need to be treated and disposed of. The Waste Disposal Authority has secured a number of contracts for residual waste for the near future, however, additional capacity will be needed in the county over the Plan period.
- 3.9 Areas of search are identified on the Key Diagram for this capacity together with supporting transfer stations if required, based on complementing existing facilities, and on drive times from the main centres of population and potential areas of household growth. This, together with the additional organic waste capacity, should be sufficient for the county to reach the targets for recovery and also cater for future arisings.

Future Arisings and required facilities

- 3.10 The amount of Local Authority Collected waste that needs to be managed in Hertfordshire in the future has been derived from the work carried out by the East of England Regional Technical Advisory Body for Waste as part of the Review of the East of England Plan, prior to its abolition. These projections are considered to be more robust than the figures that were included in the adopted East of England Plan, and have been the subject of Sustainability Appraisal/Strategic Environmental Assessment. Additional work carried out by SLR on behalf of the county council has shown very similar projections. Table 6 shows the forecasted waste arisings for Local Authority Collected waste over the Plan period based on the RSS review housing targets and reaching a recycling and composting target of 60% by 2031. This recycling and composting target will be kept under review through the monitoring process.
- 3.11 The final three rows of this table calculate the indicative facility numbers that would be required to manage the capacity identified. This is calculated by dividing the shortfall in capacity by the potential size of a facility (small, medium or large). It is important to note that the capacity requirements are a division of the shortfall in capacity with the potential size of facility, not a total number of facilities required in each

five year period (e.g. small + medium + large). Facilities could therefore come forward in a range of sizes that will meet the identified capacity shortfall.

Table 6: Future Local Authority Collected waste requirements (tonnes rounded)²⁴

		2016	2021	2026
Forecast LAC waste arisings²⁵		564,000	556,000	546,000
Recycling/composting RSS target figures²⁶		288,000	302,000	314,000
Remaining residual waste available for treatment²⁷ and/or landfill		276,000	254,000	232,000
Shortfall of capacity		276,000	254,000	232,000
Indicative facility numbers	Small (50kt/y)	6	5	5
	Medium (100kt/y)	3	3	3
	Large (200kt/y)	2	2	2

- 3.12 The Household Waste Recycling Centre (HWRC) service and network will be kept under constant review as part of the Annual Accommodation Statement.

Commercial and Industrial Waste

- 3.13 A number of studies have been undertaken looking at Commercial and Industrial waste. The Urban Mines study indicated that C&I waste arisings in Hertfordshire in 2006 were 1,023,243 tonnes per annum (tpa). However, the report recommends that the tables for Waste Planning Authorities should be used with care due to discrepancies between the modelled data and separate datasets. A more up-to-date survey was undertaken by DEFRA (2009,) however, there are also limitations associated with this study and so previous work undertaken by the Environment Agency has been used to provide a county level picture²⁸. Given the uncertainties with waste data, the quantities of Commercial and Industrial waste will be reviewed over the plan period to update capacity requirements appropriately.

²⁴ Note: Modified from Hertfordshire Municipal Waste Spatial Strategy, July 2009 and SLR Hertfordshire's Establishment of Waste Forecasts and Targets at 2026, August 2010.

²⁵ SLR Updated Waste Forecasts for Hertfordshire Oct 2011. Using 2009 as a baseline year, the RSS review housing growth figures and reaching a target of 60% recycling by 2031.

²⁶ SLR Updated Waste Forecasts for Hertfordshire Oct 2011. Using 2009 as a baseline year, the RSS review housing growth figures and reaching a target of 60% recycling by 2031.

²⁷ This figure includes a proportion of potentially untreatable waste that is assumed to be 70,000t.

²⁸ Defra 2002/2003 CI Survey <http://www.defra.gov.uk/statistics/environment/waste/wrfq03-indcom/>

- 3.14 For non-hazardous waste, Hertfordshire depends on treatment facilities and the only landfill site remaining in the county at Westmill, near Ware. This landfill site has an annual maximum capacity of 350,000 tonnes, with planning permission until 2017. However, it currently operates below this capacity and is likely to have void space remaining beyond this date. The county will work towards a target of achieving a diversion rate of 93% from landfill by 2026.²⁹

Table 7: Existing Commercial and Industrial waste capacity (tonnes per year throughput as at September 2011)

Recycling (including transfer)	313,000
Composting	19,000
Treatment	39,000
Landfill	204,000
Total	575,000

- 3.15 In order to provide an up-to-date estimate of existing capacity the county council has reviewed planning permissions, Environment Agency (EA) permits and annual survey returns to compile a list of facilities. For each facility, indicative capacities have been identified and aggregated together to give a total for each type. It is important to note that many of the facilities may have permission and/or permits which allow for a higher capacity, however, in reality this capacity is not utilised. The figures have therefore been moderated in order to give a more realistic overview and to ensure that the appropriate number of facilities is brought forward over the plan period.
- 3.16 The final three rows of this table calculate the indicative facility numbers that would be required to manage the capacity identified. This is calculated by dividing the shortfall in capacity by the potential size of a facility (small, medium or large). It is important to note that the capacity requirements are a division of the shortfall in capacity with the potential size of facility, not a total number of facilities required in each five year period (e.g. small + medium + large). Facilities could therefore come forward in a range of sizes that will meet the identified capacity shortfall. The requirements for Commercial and Industrial waste are as follows:

Table 8: Commercial and Industrial waste - composting and recycling requirements (tonnes rounded)³⁰

	2016	2021	2026
Total waste arisings C&I	1,059,000	1,066,000	1,062,000
Recycling/composting target	542,000	562,000	578,000

²⁹ Based on the Draft revision to the RSS for the East of England, March 2010

³⁰ SLR Updated Waste Forecasts for Hertfordshire Oct 2011

		2016	2021	2026
Existing Capacity recycling/composting		332,000	332,000	332,000
Shortfall of capacity recycling/composting		210,000	230,000	245,000
Indicative facility numbers	Small (15kt/y)	14	15	16
	Medium (45kt/y)	5	5	5
	Large (125kt/y)	2	2	2

Table 9: Commercial and Industrial waste - remaining residual available for treatment (tonnes rounded)

		2016	2021	2026
Total waste arisings C&I		1,059,000	1,066,000	1,062,000
Remaining non-haz residual available for treatment or landfill		436,000	425,000	409,000
Existing Capacity		39,000	39,000	39,000
Minimum assumed additional capacity needed in order to meet landfill diversion target by 2030		25,000	147,000	264,000
Shortfall of capacity³¹		397,000	387,000	370,000
Indicative facility numbers	Small (50kt/y)	8	8	8
	Medium (100kt/y)	4	4	4
	Large (200kt/y)	2	2	2

Table 10: Commercial and Industrial waste – landfill requirements (tonnes rounded)³² (assuming a linear increase in treatment capacity in order to reach the target of 0% to landfill by 2031)

	2016	2021	2026
Total waste arisings C&I	1,059,000	1,066,000	1,062,000

³¹ The county council has granted planning permission for a 160,000tpa C&I residual treatment facility at Ratty's Lane, Hoddesdon, although this is yet to become operational (as of August 2012). Once operational this would reduce the capacity shortfall.

³² SLR Updated Waste Forecasts for Hertfordshire Oct 2011

	2016	2021	2026
Inert Landfill	36,000	35,000	34,000
Hazardous Landfill	45,000	43,000	42,000
Non - Hazardous Landfill	372,000	240,000	105,000

- 3.17 Table 11 below presents an estimate of the current non-hazardous waste landfill capacity gap in the county. This assumes waste growth rates set out in the review of the Regional Spatial Strategy, a high recycling and composting scenario for Local Authority Collected waste, and meeting Regional Spatial Strategy Review recovery targets for C&I waste. On the basis of these assumptions, there remains a continuing landfill capacity deficit (even accounting for Westmill landfill availability), which would need to be met from additional landfill for both Local Authority Collected waste and landfill and/or treatment for C&I waste.

Non-hazardous landfill requirements

- 3.18 Under the current contract arrangements over 200,000 tonnes of Local Authority Collected waste is landfilled and this requirement is likely to continue until residual treatment capacity is brought forward in the county, albeit at a decreasing rate as recycling and recovery rates increase.

Table 11: Non-hazardous landfill requirements (excluding inert landfill) (tonnes rounded)

	2012	2016	2021	2026
Local authority collected waste ³³	252,000	70,000	70,000	70,000
C&I (non-haz) ³⁴	393,000	372,000	240,000	105,000
Imports (residuals from London)	131,000	76,000	53,000	30,000
Total	775,000	519,000	362,000	206,000
Capacity at Westmill pa ³⁵	350,000	350,000	0	0
Shortfall	425,000	169,000	362,000	206,000
Non-hazardous landfill – void remaining (k(m³)) ³⁶	3,089,000	1,689,000	?	?

³³ The actual amount of LAC residual requiring landfill from 2026 will depend on the type of technology procured.

³⁴ The actual amount of C&I residual requiring landfill is expected to fall due to the cost of landfill and the anticipated rise in facility numbers.

³⁵ Current planning permission end date 2017

³⁶ Environment Agency 2011

3.19 The above table assumes that the existing capacity at Westmill Landfill will be used for Hertfordshire's waste and that the annual input is the permitted rate of 350,000 tonnes per annum. The shortfall in capacity arises between 2016-2020 when the planning permission at Westmill ends. However, in practice, Westmill input rates have been lower than this and therefore it is likely that non-hazardous landfill depletion will occur beyond 2020. This explains the question marks in the table above.

Construction and Demolition Waste

- 3.20 Construction and Demolition (C&D) waste arisings amounted to 1,382,000 tonnes in 2008³⁷. Some arisings will be disposed of to exempt sites or for construction purposes. It is therefore difficult to match total arisings and disposals. Information from the Environment Agency indicates that the annual disposal to inert landfill equated to 705,000 tonnes in 2010³⁸. There are currently a number of mineral extraction sites that are taking between 200,000 and 500,000tpa inert fill as part of their restoration, in addition to over 100,000tpa currently being recycled at existing sites across the county. It is therefore concluded that there is sufficient permitted capacity at the current rate of fill until 2020, and it is expected that this would be supplemented by additional capacity arising from other construction projects incorporating inert waste, particularly excavation waste arising on-site.
- 3.21 In addition, the use of Site Waste Management Plans plus new recycling/recovery sites coming forward means that the county can effectively manage inert waste arising over the plan period.

Summary of dealing with Local Authority Collected Waste and Non – Local Authority Collected Waste (Commercial & Industrial Waste):

- Hertfordshire has one remaining landfill where the permission for landfilling expires in 2017 but is likely to have capacity beyond then. This document identifies capacity gap difficulty up until 2015 for non-hazardous waste.
- Additional residual treatment capacity is required to deal with Local Authority Collected waste that cannot be recycled or composted.
- Waterdale Transfer Station is central to the delivery of the Joint Municipal Waste Management Strategy and there is a need for new waste facilities to complement this and ensure all parts of the county are serviced.
- HWRCs in the county provide a valuable role in waste management and will need to be kept under review through the Annual Accommodation Statement.

³⁷ Draft revision to the Regional Spatial Strategy for the East of England, March 2010. Most up-to-date figure shown as at 2008.

³⁸ Environment Agency 2011

- A need has been identified for additional organic waste treatment capacity of 90,000 tonnes per year by 2014 to serve the western and central/eastern parts of the county.
- In terms of Commercial and Industrial waste, recycling and composting capacity is needed for 210,000 tonnes per year together with additional residual treatment capacity for 397,000 tonnes per year by 2016.

Other wastes

- 3.22 Information regarding the other waste sectors is more limited. Mining and quarrying waste is generally managed within the quarries from which it originates and therefore does not pose a problem in terms of planning for its disposal. Dredged material is often managed alongside the area from which it has been dredged under permitted development rights and Hertfordshire has not had any significant issues in managing this waste stream. Similarly management of agricultural wastes appears to take place within the agricultural sector and the county council has not dealt with any applications other than silage clamps and anaerobic digestion plants, despite the introduction of the Waste Management (England and Wales) Regulations 2006.
- 3.23 Hazardous waste arises across a number of waste sectors and requires special handling and treatment. Due to the nature of the county's geology, with a high proportion of the county either in a major aquifer and/or classified as a ground water source protection zone 1 and/or in strategic floodplain zone 3, Hertfordshire is not suitable for the disposal of nuclear waste.
- 3.24 There has been a national decline in the amount of hazardous waste produced, with a "blip" in 2004 – this includes the period during which the co-disposal of hazardous and non-hazardous waste to landfill ceased with effect from 16th July 2004 and the annual increase is solely accounted for by an increase in landfilling. The East of England produces about 8% of the UK total, with around 60% being managed within the region³⁹.
- 3.25 Hazardous waste arisings within the county have declined from 62,000tpa in 2008 to 48,343tpa in 2009. However, a greater amount of hazardous waste treated within the county over the same period – 90,200tpa in 2008 and 70,331tpa in 2009⁴⁰. Due to the specialist nature of the waste and the treatment it will require it is unlikely that the county could ever be self-sufficient, but there is sufficient overall treatment capacity to manage the equivalent of the county's arisings.

³⁹ A Hazardous Waste Study for the East of England Region 2007

⁴⁰ Environment Agency Hazardous Waste Interrogator 2010

Chapter 4: Strategy for Waste Management

- 4.1 This document has been written in the context of current legislation. For a full explanation of European, national, regional and local legislation please refer to Appendix C.
- 4.2 National planning policy has been subject to review during the preparation of this plan with the publishing of the National Planning Policy Framework (NPPF) on 27 March 2012. Whilst NPPF does not contain waste policies, it forms the basis for setting Government's planning policies for England and how these are expected to be applied to determine waste planning applications. With regard to waste planning, national waste planning policy is due to be published as part of the National Waste Management Plan for England. Until such time, Planning Policy Statement 10: Planning for Waste Management (PPS10) remains in place and is of relevance in the formulation of planning policies for waste development.
- 4.3 This Waste Core Strategy reflects the following matters:
- The need to provide a spatial framework for the successful delivery of the Hertfordshire Joint Municipal Waste Management Strategy⁴¹;
 - Hertfordshire Municipal Waste Spatial Strategy 2009;
 - The National Waste Planning Policy Framework 2012;
 - The guidance contained within Planning Policy Statement 10: Planning for Sustainable Waste Management; and
 - Waste Strategy for England 2007.
 - The work undertaken by the Regional Technical Advisory Body for the RSS.
- 4.4 This section sets out the spatial framework and strategic policies for delivering the county council's vision and objectives. It outlines the strategic approach to waste management in Hertfordshire and sets out the targets and goals that should be monitored.
- 4.5 In line with national policy, the concept of sustainable development is the core principle in planning. As such it underpins the Waste Development Framework. Further details relating to sustainable development can be found at Policy 1A. At each stage of the Waste Core Strategy and Development Management Policies document production a Sustainability Appraisal has assessed the likely sustainability implications of the options and policies. Therefore, the policies and proposals in this Plan have been shaped to reflect the Government's objectives for delivering sustainable development.
- 4.6 A key principle outlined in PPS10 is the need to drive waste management practices up the following Hertfordshire Waste Hierarchy.

⁴¹ Hertfordshire Joint Municipal Waste Management Strategy, 2007



Figure 1: The Hertfordshire Waste Hierarchy

4.7 The Waste Hierarchy has been transposed into UK law through the Waste (England and Wales) Regulations 2011. It is embedded within the Waste Development Framework, which means its principles dictate the strategic approach for waste management in Hertfordshire. This is crucial for Hertfordshire, given the need to minimise the amount of waste disposed of in landfill. The approach to waste management in the county is therefore driven by the aim to:

- prevent the quantity and volume of waste produced
- reuse waste materials without further processing
- recover the value of waste materials through recycling, composting or energy recovery.

In this respect the Waste Development Framework will complement national policy and Hertfordshire’s Joint Municipal Waste Management Strategy to help minimise waste and ensure that there are sufficient facilities to drive waste management practices up the waste hierarchy.

4.8 The stages of the hierarchy are set out in descending order of preference according to their environmental impact. Disposal of waste to landfill, together with incineration without energy recovery should only be considered as a final option, once other options have been exhausted. However, no matter how much waste is taken out of the stream at the ‘higher’ levels, there will still be a certain amount of residual waste that will need to be disposed of in landfill or landraise (by raising the land). The strategy in this document seeks to encourage a reduction in residual waste, so that minimal land take is needed in order to dispose of it. It will also need to ensure there is sufficient recycling and processing capacity to ‘trade’ for landfill

capacity elsewhere, as set out in PPS10, given the constraints for future landfill capacity within the county.

Spatial Strategy and Strategic Policies

- 4.9 The approach to waste planning within the county should achieve net self-sufficiency by planning to deal with the equivalent of the county's own waste arisings. It is recognised that there will always be cross administrative boundary movements of waste, although the extent of this will depend on the market. In addition the limited scope for any further landfill within Hertfordshire has to be acknowledged. The county council will seek to maximise recycling, recovery and processing of waste to minimise the amount of residual waste requiring landfill.
- 4.10 Within the county there should be flexibility for imports of waste for processing/treatment and export for disposal where this can be justified. Any proposal for importing waste into Hertfordshire would have to demonstrate best practicable means for managing the waste stream, and that its social and economic benefits, including securing or creating jobs, outweigh the impacts on human health and the environment, and particularly on the movement of waste. There may also be opportunities for reducing overall "waste miles" through reciprocal arrangements with adjoining authorities.
- 4.11 Managing the equivalent of Hertfordshire's waste requires people and businesses to be 'waste aware' and responsible, as set out within the vision. While there may be scope for the management of some of Hertfordshire's waste outside of the county this will be on the basis that the waste is dealt with as close as practicable to its source, making use of sustainable transport links to reduce "waste miles". There may be other social and economic factors that result in such an arrangement for the location of waste management facilities to meet the needs of communities and businesses, but they should be well designed, appropriately sized and sensitively located so that they reduce the health, environmental and social impacts, and seek enhancement of the locality.
- 4.12 National policy seeks to ensure that waste is managed as close to its source as practicable. The adopted East of England Plan envisaged that counties in the region would accept an apportionment of London's waste and it would be unrealistic to ignore the likelihood that some of London's waste will be exported to Hertfordshire in the future. It is no easier to identify sites for the treatment of waste in Hertfordshire than in London. It is therefore expected that London will intensively treat all of its Local Authority Collected waste and Commercial and Industrial waste arisings and only send the residue to landfill. The county could accept the residue for landfilling, if sufficient sites can be identified for arisings from within Hertfordshire in the first instance. Therefore, London's waste should, after 2015, be restricted to residual waste requiring landfill as the only practical option left following recovery and

treatment. The acceptability of new non-landfill waste facilities to deal with waste primarily from outside the region will depend on a clear benefit, such as provision of a specialist processing or treatment facility and enabling the recovery of more locally arising wastes.

- 4.13 Hertfordshire moves waste within the county and to other local authorities outside of the county. This is due to the limited amount of landfill within the county and the current reliance on it as a means of waste management. As such, Hertfordshire is encouraging flexibility in the approach to new waste technology that will allow the county to deal with the equivalent of its own waste arisings. The Waste Core Strategy and Development Management Policies document needs to be flexible enough to allow for future decisions on the approach to waste management and investment choices by the waste industry. There are a number of different technologies that could come forward as the UK waste industry seeks to meet the challenge of diversion from landfill. The Plan does not prescribe which technologies should be used. As society moves away from waste disposal by landfill and shifts towards waste management practices higher up the waste hierarchy, waste will increasingly be managed and treated in buildings. As a result of more enclosed facilities and rigorous controls, waste management can be accommodated in a range of locations. PPS10 and a government research project,⁴² which looked at the spatial requirements of different types of facilities, state that most waste management facilities are now suitable for industrial locations.
- 4.14 In delivering the waste strategy, the Waste Planning Authority will need to ensure that there is a balanced approach, ensuring that there is enough flexibility that sufficient sites can come forward to meet the county's needs for a range of different types of waste management facility, but without allowing for an over-provision of sites that would detract from the overall objective of meeting the requirements of the sub-regional apportionments. In particular, the proportion of London's waste to be catered for within the county needs to be carefully managed to ensure that it is not higher than the amount agreed to.
- 4.15 To ensure flexibility for the waste management industry the Waste Planning Authority will make provision for a mixture of small and large facilities in the Site Allocations Development Plan Document. The Sustainability Appraisal concludes that this varied approach to the size (small, medium or large) of new facilities helps meet society's need for waste facilities and offers benefits in terms of minimising environmental impacts. Effectively this approach balances the benefits of having a few large facilities which could reduce land take and environmental impact and the benefits of having numerous small facilities which could reduce transport impacts as the distances travelled will be less.

⁴² Planning for Waste Management Facilities, A Research Study, ODPM, 2004

- 4.16 In line with the strategic objectives in this Development Plan Document, Hertfordshire's Waste Development Framework aims to facilitate the provision of waste management facilities in Hertfordshire for both Local Authority Collected waste and Non-LAC waste with sufficient capacity to manage the quantity of waste that the county is expected to produce. Complete self-sufficiency is unlikely to be achieved within this plan period as Hertfordshire's geology and groundwater restrict landfill capacity and capability in the county. As such, residual waste that needs to be disposed of in landfill may still need to be disposed of under existing arrangements. However, the county council views disposal as the final option and therefore aims to facilitate the provision of waste management facilities further up the waste hierarchy.
- 4.17 New Local Authority Collected waste capacity should come forward within the Areas of Search identified on the key diagram as they represent the optimal locations (taken from the Municipal Waste Spatial Strategy) for treatment and/or transfer of this type of waste. The following factors were taken into consideration when identifying these areas;
- Proximity to areas of population;
 - Proximity to major roads in the County, and in particular, junctions between major roads;
 - The sustainability benefits of limiting the overall distance that waste vehicles have to travel to take their load to a waste treatment / transfer facility;
 - The financial imperatives of the WDA's responsibilities under the Environmental Protection Act 1990 (see below)
 - The knowledge of senior officers in the WDA of each District and Borough Council area and their individual refuse collection arrangements;
 - The location of the District and Borough Council refuse collection depots, where their refuse collection vehicles are parked when not in operation;
 - The aim to try and provide facilities which would be used by Districts/Boroughs for all their residual waste, rather than District's/Borough's residual waste being split between more than one facility.
- 4.18 All the county's major centres of population lie within approximately 20 minutes drive time of the centre of at least one of the three Areas of Search or Waterdale. By providing waste treatment/transfer facilities in strategic locations that are no more than 20 minutes drive time from the county's main population centres, the strategy will mean that waste collection vehicles will not have to spend more than an hour in delivering their load to a facility (assuming a 20 minute drive there and back plus 20 minutes at the facility). This will enable the collection

vehicles to spend the majority of their working day on their rounds rather than travelling to and from a waste treatment/transfer facility, thereby enabling an efficient network of waste collection rounds and saving scarce resources.

- 4.19 The Municipal Waste Management Spatial Strategy 2009 identifies the existing Waterdale Transfer Station together with three areas of search for waste treatment capacity and additional waste transfer facilities (if required) for the bulking of waste prior to being sent for treatment. It also addresses the county's needs with regards to Household Waste Recycling Centres and composting.
- 4.20 In projecting future Local Authority Collected waste growth, projections have assumed that waste growth will be in line with the growth in the number of households shown as housing targets within the RSS review, multiplied by the waste reduction target of 1 tonne per household.
- 4.21 It is recognised that waste treatment facilities will produce a certain amount of residual waste, which may be hazardous depending on the chosen technology. At this time, given that the type of facility to be provided is unknown, the amount of such waste is also unknown. It is anticipated that, given the county's physical constraints, hazardous waste disposal will need to be provided out of the county.
- 4.22 The network of Household Waste Recycling Centres plays an important role in the delivery of sustainable waste management in the county, contributing to the reuse and recycling of waste by local residents, driving waste management practices up the waste hierarchy. The coverage of these facilities is an issue that needs to be considered as part of the spatial strategy for this service provision which is currently being prepared by the county. With the Household Waste Recycling Centre service under constant review, the county council is reviewing the acceptability of the existing Household Waste Recycling Centre sites with the aim of rationalising the facilities.⁴³
- 4.23 The spatial element of the Waste Core Strategy and Development Management Policies document takes account of:
- the need to match overall capacity with future demand including pressures arising from outside the county;
 - the council's policy to give priority to the reuse of previously developed land, and redundant agricultural and forest buildings and their curtilage;
 - the council's sustainable transport policy which takes into account the existing capacity and potential transport infrastructure to support the sustainable movement of waste;

⁴³ Annual Accommodation Statement, Hertfordshire Waste Management Cabinet Panel – Tuesday 10 February 2009

- the council's policy that promotes waste management development close to the source of origin of the waste materials where possible, that provides ready access to the primary route network or alternative modes of transport including active support for those proposals that promote alternative modes of transport such as rail and water where practicable;
- the council's policy that in making provision for the county's own waste arisings and imports from London, a mixture of small, medium and large facilities with priority for extensions to existing sites/facilities should be identified/encouraged
- the council's policy that in making provision for the county's own waste arisings and imports from London, a mixture of small and large facilities with priority for extensions to existing sites/facilities should identified/encouraged
- the need to meet Government targets in respect of recycling and recovery
- the requirements set out in the Hertfordshire Joint Municipal Waste Management Strategy 2007, including the more challenging targets for recycling and recovery and the need for additional capacity.
- *As stated in PPS10 all planning authorities should 'protect green belts but recognise the particular locational needs of some types of waste management facilities when defining detailed green belt boundaries and, in determining planning applications, that these locational needs, together with the wider environmental and economic benefits of sustainable waste management, are material considerations that should be given significant weight in determining whether proposals should be given planning permission.'*

4.24 One of the key elements of the Plan's spatial strategy therefore, is the need for new facilities to be located in those areas where there is pressure for growth.

4.25 Policy 1 is an overarching policy that seeks to make provision for dealing with waste management in Hertfordshire by providing the capacity and facilities to meet the waste management needs of communities and businesses in Hertfordshire and an agreed apportionment from outside the county for pre-treated waste. In order to do so the county council will have to work with its communities and partners to be aware of other waste management strategies and deliverability of proposals.

4.26 Existing strategic sites, Allocated Sites and Employment Land Areas of Search can be found in the Waste Site Allocations document. Tables 5-11 show existing capacity and shortfall in Local Authority Collected waste and non-Local Authority Collected waste, such as Commercial and Industrial waste.

Policy 1: Strategy for the Provision for Waste Management Facilities

Provision will be made for a network of waste management facilities that drive waste management practices up the waste hierarchy and are sufficient to provide adequate capacity for existing and future waste arisings within the county and for any agreed apportionment for waste arisings from outside the county.

Provision for new appropriate and adequate Local Authority Collected waste management facilities will be provided within the broad areas A, B, C, D and E as shown in the Key Diagram.

Waste management facilities for waste that is not Local Authority Collected waste will be brought forward on existing strategic sites, Employment Land Areas of Search and Allocated Sites.

To ensure flexibility for the waste management industry and for use of newer technologies, there will be provision for a mixture of small, medium and large waste management sites as appropriate. New and emerging waste management and processing techniques will be encouraged.

Any proposed new development within the county will be required to make appropriate provision for managing the waste arising from that development.

Proposals for the treatment of waste arising outside of Hertfordshire will only be permitted where it can be demonstrated that compensatory provision of capacity for residual waste which cannot be managed in Hertfordshire is available and deliverable.

Sustainable Development

- 4.27 At the heart of planning is the requirement to contribute to the achievement of sustainable development. The planning system is defined within legislation and the NPPF details planning as needing to perform an economic, social and environmental role within our community to achieve sustainable development. These three roles are inextricably linked. In terms of the economy, plans and development should contribute to building a strong, responsive and competitive

economy. Socially, plans and development should support strong, vibrant and healthy communities and on an environmental theme, plans and development should contribute to protecting and enhancing our natural, built and historic environment. Minimising waste forms part of the environmental role to be fulfilled.

- 4.28 Linked with this, PPS10 promotes the need to use resources efficiently and to provide waste facilities which are sustainable in location and form, but which meet the waste management needs of Hertfordshire's growing population.
- 4.29 With the planning system actively guiding development to achieve a positive sustainable outcome, policies have been developed within this Plan to shape waste management facilities in the most appropriate location and form to deliver positive results in terms of economic, social and environmental sustainability. Plans and developments need to take account of local circumstances so that they respond to the different opportunities for achieving sustainable development in different areas.
- 4.30 However, in certain circumstances justification(s) will exist for waste developments to be considered inappropriate and unsustainable, whereby there will be overriding material planning consideration(s) that justify a reason for refusal of planning permission. As a result, whilst there is a presumption in favour of sustainable development, this does not override material planning considerations that may exist.
- 4.31 Policy 1A is an extension of policy 1, whereby the means of putting into practice the national policy context within which permissions will be granted is specified. This is set alongside the spatial strategy for providing waste management facilities in the county. Both policies 1 and 1A are integral to the provision of waste management facilities within Hertfordshire and should therefore be referred to as part of any waste planning proposal. This is to ensure that development accords with the aims of the strategy in this Plan and the aims of Government reforms of the planning process in the NPPF, which itself, is a material planning consideration.

Policy 1A: Presumption in Favour of Sustainable Development

When considering development proposals the council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. It will always work proactively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.

Planning applications that accord with the policies in this Local Plan (and, where relevant, with policies in Neighbourhood Plans) will be approved without delay, unless material considerations indicate otherwise.

Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then the council will grant permission unless material considerations indicate otherwise – taking into account whether:

- **Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or**
- **Specific policies in that Framework indicate that development should be restricted**

Monitoring

Related Strategic Objectives	SO1, SO2, SO3, SO6, SO7
Core Strategy Targets	T2, T3, T4, T5, T6, T7, T9,
Core Strategy Indicators	IN1, IN2, IN3, IN4, IN5, IN6, IN8, IN11, IN28, IN29, IN30

Implementation

Mechanism	Delivery Partner(s)
Site Allocations DPD	Waste Planning Authority Waste operators Statutory consultees Other local, regional or national consultees
Monitoring of planning permissions (monthly)	Waste Planning Authority Hertfordshire and Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators
Hertfordshire County Council Consultation Database	Waste Planning Authority

Waste Prevention and Reduction

- 4.32 European, national and local policies place emphasis on waste prevention and reduction, seeking to minimise the volume produced. However, it is inevitable that as the population grows, households increase and the general economic climate improves, consumption will increase and there will be increases in waste generated. Waste prevention and reduction is therefore a key issue in Hertfordshire. The county council is working towards the target of 0% landfilling of untreated Local Authority Collected waste and commercial waste by 2021 in line with the National Waste Strategy 2007. Waste prevention is at the top of the waste hierarchy and the county council aims to drive waste management practices up the hierarchy by sustainable waste management practices. In the absence of statutory targets for Commercial and Industrial waste, recycling rates are respectively assumed to increase linearly to reach 55% and 60% by 2030.⁴⁴
- 4.33 Waste prevention and reduction, as a way of reducing the amount of waste disposed to landfill is a key principle outlined in PPS10, which stipulates that disposal of waste to landfill should only be considered as a final option. The overall aim of the Waste Core Strategy and Development Management Policies DPD therefore, is to seek to encourage a reduction in residual waste, so that minimal land-take is needed to dispose of it. Policy 2 seeks to encourage residents and businesses to become more self aware and waste aware in terms of recycling across the county. This in line with the legal obligations set out in the Waste (England and Wales) Regulations 2011.
- 4.34 Key examples of waste minimisation could include the packaging in goods that people buy, buying goods, materials and services that are required and therefore reducing the need to dispose of waste. There is a trend in producing products that last longer than usual, such as electricity bulbs, etc; which helps to reduce the need for replacements. Reducing waste will help to reduce the need for more waste management facilities and land-take for landfill.
- 4.35 Working with residents and the business community will help develop an understanding of the waste situation and every sector of the community can work together to be waste aware. It can also help inform business and consumer decisions.

⁴⁴ SLR Updated Waste Forecasts for Hertfordshire, October 2011.

Policy 2: Waste Prevention and Reduction

Hertfordshire residents and businesses will be encouraged to reduce waste in accordance with the Hertfordshire Joint Municipal Waste Management Strategy⁴⁵. The Waste Planning Authority will achieve this by:

- 1. raising awareness amongst the general public on measures to prevent and where necessary further reduce waste and encouraging waste separation and recycling at source;**
- 2. pro-actively engaging with the general public and businesses through regular communication and the WasteAware Campaign.**
- 3. encouraging other Local Planning Authorities to include waste prevention and reduction policies in emerging Local Plans;**
- 4. ensuring the Waste Development Framework secures a reduction in residual waste, so that minimal land-take is needed in order to dispose of it; and**
- 5. working in partnership with businesses to encourage the reduction of waste generation through packaging, design and reuse of materials.**

Monitoring

Related Strategic Objectives	SO3, SO5
Core Strategy Targets	T6,T7, T10
Core Strategy Indicators	IN2,IN3,IN7, IN33, IN34

Implementation

Mechanism	Delivery Partner(s)
Engaging in partnership work and supporting communication campaigns	Waste Planning Authority Hertfordshire District and Borough Councils Neighbouring Local Authorities Waste industry Retailers, producers and manufacturers General public

⁴⁵ The Hertfordshire Joint Municipal Waste Management Strategy 2007 Core Strategy

Mechanism	Delivery Partner(s)
Hertfordshire County Council Consultation Database	Waste Planning Authority
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Energy and Heat Recovery

- 4.36 Whilst the movement of waste management practices up the waste hierarchy is encouraged and actively pursued, the prevention, reduction, re-use, recycling and composting of waste are unlikely to be sufficient to negate the need for residual treatment and disposal.
- 4.37 Landfill is currently the key means of disposal in Hertfordshire. It is acknowledged that a high proportion of Local Authority Collected waste in the county is currently being sent to landfill for disposal. There is a need to promote residual waste facilities that complement the waste hierarchy and help secure self-sufficiency in landfill allowance (nationally apportioned allowance under the Landfill Allowance Trading Scheme criteria).
- 4.38 However, there are a number of drivers relating to the cost and availability of landfill which means that there is a need to shift away from heavy reliance on landfill, to a more mixed approach combining a wider variety of treatment and disposal technologies. The drivers broadly relate to:
- Government guidance relating to self-sufficiency;
 - the environmental problems associated with landfill;
 - the future availability of landfill void in Hertfordshire and adjacent counties, particularly Bedfordshire;
 - the impact of the Landfill Tax and the Landfill Allowance Trading Scheme (LATS); and
 - with the transfer of housing allocation and planning to local authorities, the likely objection to accepting waste from outside a Local Authority's area.
- 4.39 There is a range of existing and emerging technologies to treat residual waste by biological, mechanical and thermal means (for example; anaerobic digestion, mechanical, biological treatment and advanced thermal technology) and the Waste Core Strategy and Development Management Policies document does not restrict any of these coming forward. All of these processes can produce energy in the form of heat or power or provide a fuel source. Technologies are still being researched and assessed for their ability to deal with Local Authority Collected waste and other waste streams. However, there will still be final residues from the treatment processes and it is likely that landfill will be needed for disposal of these.
- 4.40 The Hertfordshire Joint Municipal Waste Management Strategy 2007 encourages energy recovery but does not specify which technologies

should be used in order to allow for innovation and to encourage flexibility in the industry.

- 4.41 The Hertfordshire Renewable and Low Carbon Energy Technical Study⁴⁶ also identifies energy recovery from waste as a means of contributing to reduced carbon emissions from Hertfordshire's built environment, primarily by providing heat and power as part of a de-centralised energy scheme. This study does not set any technological preferences but does identify, through its 'Energy Opportunities Plan', certain areas where de-centralised energy schemes could be implemented. Policy 3: Energy and Heat Recovery supports the recommendations of the Hertfordshire Renewable and Low Carbon Energy Technical Study by encouraging waste development proposals that maximise the recovery of energy from waste and contribute to the delivery of the opportunities identified in the 'Energy Opportunities Plan'.
- 4.42 Although an end product for someone, waste could still be viewed as a resource for others. Hertfordshire County Council takes the view that there is the need to extract as much value from waste as possible including energy within the waste. Waste that cannot be reused or recycled may be used to generate electricity, heat or fuels for subsequent heat and power generation. The UK Government's Energy White Paper 2007: Meeting the Energy Challenge and the Waste Strategy for England 2007 both regard energy from waste technologies as a renewable form of heat and power generation that has both energy and waste policy benefits.⁴⁷ Various technologies exist that are considered by the UK government to help ensure security of energy supply, contribute toward the Renewables Obligation, and help meet waste management objectives. The 'Waste Strategy for England 2007' strongly supports energy from waste as being a key part of the waste management approach, recognising that 'a vigorous energy from waste policy is compatible with high recycling rates'.⁴⁸ This policy seeks to ensure that where possible the implementation of technologies utilising waste as a resource to produce energy in the form of heat and power is employed, subject to other policies of the Plan.
- 4.43 Policy 3 facilitates the development of facilities to maximise recovery from waste management processes for Hertfordshire's own waste, whilst protecting the environment and human health, generating local employment and maximising the recovery value from waste.

⁴⁶ produced by AECOM in July 2010

⁴⁷ Energy White Paper 2007: Meeting the Energy Challenge, p.152

⁴⁸ Waste Strategy for England 2007, p.78

Policy 3: Energy & Heat Recovery

Proposals for the treatment of waste which maximise recovery and where appropriate generate and recover heat and/or power will be acceptable in principle, provided that the proposal is for the recovery of energy from waste that cannot reasonably be dealt with at a higher level in the waste hierarchy.

Proposals for the recovery of energy from waste that help to deliver identified energy opportunities in Hertfordshire will be encouraged.

In considering such proposals the Waste Planning Authority will have regard to the benefits of maximising energy recovery and the protection of the environment and human health.

Monitoring

Related Strategic Objectives	SO1, SO5, SO6
Core Strategy Targets	T13,T18
Core Strategy Indicators	IN10, IN11, IN16

Implementation

Mechanism	Delivery Partner(s)
Site Allocations DPD	Waste Planning Authority Waste operators Statutory consultees Other local, regional or national consultees
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Landfill and Landraise

- 4.44 Disposal of all types of waste to landfill lies at the bottom of the Waste Hierarchy. This Plan seeks to minimise the need for landfill in Hertfordshire by driving waste management practices up the Waste Hierarchy. However, within the Plan period, landfill will still have a role, although a limited one within waste management. The early part of the Plan period is likely to be dominated by landfill.
- 4.45 Landfill is an exhaustive resource that will diminish and will not be replaced by substantial new sites created by mineral extraction. Given the limited landfill void in the county and the need to encourage self-sufficiency, this Plan promotes other residual treatment methods for non-inert waste before landfill. However, as Hertfordshire's Waste Strategy outlines, there will still be some residual waste after treatment and also a proportion of untreated waste that will need to be disposed of in landfill within the Plan period. Hertfordshire's options for residual waste disposal have been outlined in SLR's report which concludes that during the period of identified major capacity gap up to 2015/16, this additional waste will be diverted to other neighbouring counties. This situation cannot be relied upon to continue to the end of the Plan period and as such it is important to bring forward treatment of the maximum amount of waste as quickly as possible.
- 4.46 The difficulty in Hertfordshire is that the county's geology means a high proportion of the county is either in a major aquifer and/or classified as a ground source protection zone 1 and/or in strategic floodplain zone 3. Environment Agency policies prohibit landfill sites in such zones. Equally, landfill sites will not be allowed in a Major Aquifer area if the quantity and nature of the waste is such that there is potential to give rise to groundwater pollution. However, mitigating approaches acceptable to the Environment Agency can be considered.
- 4.47 As such the opportunity for new landfill capacity in Hertfordshire is severely restricted, particularly for hazardous and non-inert (non-hazardous) waste where potential for groundwater pollution is higher. However, mitigating approaches acceptable to the Environment Agency can be considered. The Landfill Directive requires that landfill sites are classified into three types: inert waste, non-hazardous and hazardous waste. Opportunities for hazardous landfill (e.g. asbestos) have been particularly restricted by the Landfill Directive as the UK practice of co-disposal of hazardous and non-hazardous waste is now prohibited. Non-hazardous waste is generally biodegradable and accounts for most Local Authority Collected waste and Commercial & Industrial waste. Without pre-treatment, biodegradable waste produces leachate which pollutes ground water supply.
- 4.48 There are more opportunities for inert waste to be disposed of in landfill within Hertfordshire given the reduced pollution potential. There are three preferred areas identified for mineral extraction (within the

Minerals Local Plan 2002-2016, adopted March 2007) which once worked may be suitable for inert waste disposal as part of their restoration. Some existing mineral sites may be suitable for restoration by inert landfill, depending on the geology, hydrology and proximity to other developments. The Sustainability Appraisal⁴⁹ concludes that the use of mineral voids for disposal of waste by landfill is a sustainable option because it limits the need to transport waste outside the county and also reduces the land-take that would be needed for new landfill sites. However, to ensure restoration opportunities for environmental protection, recreation and local amenity, disposal of waste by landfill should only be allowed subject to satisfactory restoration and environmental protection.

- 4.49 To encourage self-sufficiency, landfill sites for non-hazardous waste will be safeguarded in the Waste Site Allocations document. There is currently no landfill capacity for hazardous waste. As there is limited capacity for non-hazardous and hazardous landfill, some residual waste will still need to be sent outside of the county.

Landfill Strategy

- 4.50 The policy intention is to restrict the amount of waste being sent to landfill whether within or outside of Hertfordshire and to put in place other measures to reduce the volume of waste requiring disposal. The county council seeks to achieve this within a landfill strategy. This involves working closely with neighbouring waste authorities in order to explore the potential of trading the disposal of residual waste across the county boundary in exchange for the treatment of waste within Hertfordshire. The actual capacity required for landfill will be dependent on the type of waste treatment facilities that come forward during the Plan period.

Landraise

- 4.51 When all other possibilities have been considered for disposal and found not to be appropriate, landraising may have a role to play in the disposal of inert waste as part of the county's own landfill strategy. Policy 4 has been developed to help meet the objectives by assisting the county in dealing with its own waste arisings in allowing the use of waste materials to be deposited in certain circumstances to aid restoration purposes.
- 4.52 It is recognised that the disposal of waste through landfill and landraise are final options for the management of residual waste. As such, this policy intention is to impose robust planning control over and above the strategic element of the policy that will take account of potential adverse environmental and landscape impacts.

⁴⁹ Sustainability Appraisal Report, September 2010, produced by Land Use Consultants.

- 4.53 The Sustainability Appraisal indicated that the policy direction for landraising should be subject to consideration of environmental and landscape impacts. The report also stated that landraising offered potential benefits in terms of restoration of derelict and degraded land while avoiding unacceptable landscape impacts and increased flood risk. Some types of waste to be landfilled may be appropriate for landscaping and restoration. There will be circumstances where landraise can be employed to bring about visual and other land improvements.
- 4.54 This policy direction aims to offer opportunities for the restoration of void space or degraded land, with associated environmental enhancement and recreation and amenity benefits, through appropriate landfill activity while avoiding environmental impacts.⁵⁰ Landraise provides the opportunity to reclaim land and manage residual waste locally, so landraise should be considered as a final option, subject to consideration of environmental and landscape impacts.

Policy Approach

- 4.55 The Landfill Directive sets targets requiring the decrease of biodegradable waste going to landfill. If these targets are not met (in respect of Local Authority Collected waste) the county council will suffer financial penalties. In line with the national objectives and the county council's aim to move waste management practices up the Waste Hierarchy, landfill and landraise should only be used as a last resort and in line with the end use of the site. Any application to landfill a site will be assessed in terms of the Environment Agency's Regulatory guidance on Landfill Directive LFD 1 'Understanding the Landfill Directive'.
- 4.56 The policy for landfill and landraise seeks to facilitate the provision of sufficient waste management facilities in appropriate locations within Hertfordshire, to accommodate the equivalent of the county's own arisings and to move waste management practices up the Waste Hierarchy. The policy will only allow landfill as a last resort and each proposal will be dealt with on a case by case basis. By assessing individual proposals on the basis of environmental and health impacts, the policy also aims to minimise the impact on human health, the natural and built environment.
- 4.57 Mineral voids suitable for inert landfill will be safeguarded to help ensure Hertfordshire deals with its own waste as much as possible. In relation to landfill gas emissions, responsible waste management can make an important contribution to a strategy addressing the adverse

⁵⁰ Paragraph 7.69 Hertfordshire Waste Development Framework Preferred Options for the Core Strategy Development Plan Document Sustainability Appraisal Report prepared by Land Use Consultants May 2007

effects of climate change. Gas emission from the landfilling of residual waste should be harnessed for potential energy production. Both landfill and landraise facilities should be well managed in line with Waste Management and Pollution Prevention Control requirements, and to ensure vermin and pests, such as gulls are not attracted to the site.

Policy 4: Landfill and Landraise

Proposals for additional capacity within existing landfill sites or proposals for new landfill sites will only be granted planning permission as a last resort where it can be demonstrated that the residual waste has already undergone extensive treatment and there are no other suitable means of disposal. Any new capacity will only be allowed where it meets with environmental criteria regarding flood zones and groundwater protection zones, except where acceptable mitigation can be provided.

Applications for landfill and landraise should provide details of:

- i) how waste is to be pre-treated/sorted;**
- ii) how effective the pre-treatment/sorting process will be; and**
- iii) the control measures to be put in place to ensure only pre-treated/sorted waste is accepted;**
- iv) reclamation proposals; and**
- v) how the proposal maximises energy recovery in accordance with Policy 3.**

Proposals shall demonstrate the visual impact of the proposed development and its impact on the character of the landscape and any mitigation. If necessary, additional landscaping, planting and screening should be proposed.

Disposal of waste and restoration with inert material by raising the level of land will only be granted permission where:

- i) it would assist the preparation of land for other approved development proposals;**
- ii) the land is derelict or degraded;**
- iii) it would result in significant other environmental benefit;**
- iv) it can be demonstrated where applicable, that it is necessary to achieve restoration for mineral voids; and**
- v) it can be demonstrated that it will not give rise to unacceptable implications to human health, amenity, landscape and the environment.**

Reclamation proposals should ensure that the site is restored to a state that is of equal or greater environmental or agricultural value than the previous land use.

Monitoring

Related Strategic Objectives	SO1, SO5, SO7
Core Strategy Targets	T1, T2, T8
Core Strategy Indicators	IN12

Implementation

Mechanism	Delivery Partner(s)
Site Allocations DPD	Waste Planning Authority Waste operators Statutory consultees Other local, regional or national consultees
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Safeguarding Waste Management Sites

- 4.58 There are difficulties associated with establishing new waste facilities, including the scarcity of suitable sites. The loss of existing sites and sites proposed for allocation for waste uses can exacerbate this situation. In order to achieve and maintain a sustainable distribution of waste management facilities it is important to ensure that suitable sites are not lost. PPS10 places responsibility on planning authorities to consider the likely impact of proposed, non-waste related development on existing waste management facilities' sites and on areas allocated for waste management. PPS10 also places responsibility on planning authorities to oppose neighbouring development which may have a negative effect on continuing waste operation. Safeguarding existing sites reduces the need for new facilities and contributes towards the aims of dealing with the equivalent of the county's own waste arisings.

- 4.59 The safeguarding of existing sites also helps to ensure that sites are sensitively located and form a strategic network of facilities within the county. The compatibility of developments with waste developments within a specified area relates to the need to reduce the environmental and social impacts at such a location which is a key part of the county council's policy. Certain land uses such as residential environments, local businesses, schools, hospitals, food production sites, farmland and activities such as recreational facilities, including rights of ways, need to be protected from unacceptable levels of adverse effects. However, there could be mitigating measures that can be put in place to limit the effects of waste management operations.
- 4.60 In pursuance of Policy 5, the county council will work with other Local Planning Authorities to ensure that proposals for new development do not constrain sites safeguarded for waste management facilities. Annual monitoring will help to ensure that land is not unnecessarily restricted from other non-waste related uses if it can be demonstrated that such land is no longer needed for waste management facilities.
- 4.61 This policy aims to safeguard suitable waste development sites. The county council will generally object to other development proposals on a safeguarded waste site where the planning application cannot be amended to make them acceptable. Any future planning permissions issued for waste management development would also be covered by this policy. Safeguarded sites will be listed and updated in future monitoring reports produced by the county council.

Policy 5: Safeguarding of Sites

Land and sites where there are existing waste management facilities; land and sites where planning permission exists but not yet implemented; or land and sites on which planning permission is subsequently granted for waste management facilities will be safeguarded to contribute to a strategic network of waste management provision within the county.

The Waste Planning Authority will oppose development proposals which are likely to prevent or prejudice the use of land identified or safeguarded for waste management purposes unless alternative or enhanced provision is made for a facility dealing with the equivalent waste capacity or where it can be demonstrated that the need for those facilities can no longer be justified.

Monitoring

Related Strategic Objectives	SO2, SO6, SO7
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Core Strategy Targets	T10, T11
Core Strategy Indicators	IN7,IN8, IN32

Implementation

Mechanism	Delivery Partner(s)
Monitoring of planning permissions (monthly)	Waste Planning Authority Hertfordshire and Neighbouring LAs
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste Operators
Hertfordshire County Council Consultation Database	Waste Planning Authority

Green Belt

- 4.62 Over half of land in Hertfordshire is designated as Green Belt. This significantly limits the number and spread of suitable sites for waste management facilities within the county. There is a significant shortfall of waste management facility capacity in Hertfordshire and only a limited proportion of land is available outside of the Green Belt.
- 4.63 National planning policy requires the openness of the Green Belt to be maintained and the countryside to be safeguarded from encroachment and urban sprawl. Within national planning policy there is a general presumption against inappropriate development which by definition is harmful to the Green Belt. In this context, waste management facilities can be considered as inappropriate development in the Green Belt. Any proposal for the development of waste management facilities within the Green Belt is required to demonstrate very special circumstances that outweigh the harm to the Green Belt and any other harm.
- 4.64 PPS10 advises⁵¹ that planning authorities should “*protect green belts but recognise the particular locational needs of some types of waste management facilities when defining detailed green belt boundaries and, in determining planning applications, that these locational needs, together with the wider environmental and economic benefits of sustainable waste management, are material considerations that should be given significant weight in determining whether proposals should be given planning permission*”.
- 4.65 The Waste Core Strategy and Development Management Policies document does not dictate the precise location of different types of

⁵¹ Paragraph 3, p.6 of Planning Policy Statement 10: Planning for Sustainable Waste Management, revised March 2011.

facilities; instead, in line with advice in PPS10, it enables the provision of a broad range of locations and varying sizes for waste management facilities within the county. The provision of local facilities helps meet the requirements in PPS10 that communities should manage their own waste and that waste should be managed as close as practicable to its origin. However, it is not always practicable or viable for every local community in Hertfordshire to treat its own waste, partly because of the difficulties with finding suitable sites, and partly due to viability issues for the waste industry, such as economies of scale.

- 4.66 In recognition of the potential wider environmental and economic benefits of sustainable waste management, it is expected that some development will be considered in the Green Belt. The Sustainability Appraisal concludes that this option offers relative benefits in terms of reducing waste transport, reducing development pressure outside the Green Belt and providing greater flexibility in meeting society's needs for waste management. As such this policy meets the county council's objectives towards achieving self-sufficiency and locating facilities as close as practicable to the source of waste.
- 4.67 While Policy 6 seeks to maintain the protection of Hertfordshire's Green Belt, it details the criteria to guide the consideration of planning applications for locating new and/or expansion of existing, waste management facilities within the Green Belt.
- 4.68 Each proposed facility will need to be appraised on a site and technology specific basis. The waste management facilities will need to be designed and positioned to reduce conflict with the objectives of the Green Belt. For example, the reuse of existing buildings may minimise the impact on the openness of the Green Belt.

Policy 6: Green Belt

Applications for new and/or expansion of existing waste management facilities within the Green Belt will be required to demonstrate very special circumstances sufficient to outweigh the harm to the Green Belt together with any other harm identified. In considering proposals within the Green Belt the following criteria will be taken into account as material considerations:

- i) The need for the development that cannot be met by alternative suitable non-Green Belt sites;**
- ii) The need to find locations as close as practicable to the source of waste;**
- iii) The availability of sustainable transport connections;**
- iv) The site characteristics;**
- v) Any specific locational advantages of the proposed site;**

and
vi) **The wider economic and environmental benefits of sustainable waste management, including the need for a range of sites.**

Monitoring

Related Strategic Objectives	SO1, SO2, SO2, SO6
Core Strategy Targets	N/A
Core Strategy Indicators	IN17, IN35

Implementation

Mechanism	Delivery Partner(s)
Site Allocations DPD	Waste Planning Authority Waste operators Statutory consultees Other local, regional or national consultees
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Criteria for allocating sites

4.69 Government guidance emphasises the need to allocate sites to ensure that sustainable waste facilities come forward. Having a set of identified areas and specific allocated sites does provide some degree of certainty for the waste industry. However, the allocation of sites does not guarantee that they will be developed in accordance with the Plan. Sites not allocated may be put forward for development by applicants. There is therefore the need to set out general locational criteria for assessing applications on land outside of the existing strategic sites, Employment Land Areas of Search and Allocated Sites identified in the Waste Site Allocations document.

- 4.70 The Waste Site Allocations document will incorporate Waste Site Briefs which will provide further details to guide applicants to appropriate potential waste management facilities that the county council considers could be accommodated on identified areas and allocated sites.
- 4.71 The allocation of sites may not necessarily be new sites but could be extensions to existing ones where there is recognition that those sites have certain locational and site specific benefits. Extension to existing waste management facilities and sites within the Green Belt will still have to meet with national planning policy requirements that very special circumstances can be demonstrated to outweigh the harm to the Green Belt.
- 4.72 In the Waste Site Allocations document, existing strategic sites, Employment Land Areas of Search and Allocated Sites will be identified as land likely to be required to meet Hertfordshire's shortfall in waste management capacity for the Plan period. These will consist of a variety of appropriately sized waste management facilities. The county council will have regard to a mix of treatment and disposal methods, and sites for different waste management facilities.
- 4.73 The precise contribution each site will make towards sustainable waste management in Hertfordshire will not be established until a planning application is made. The Sustainability Appraisal views this approach as providing both flexibility and certainty. Suitable areas can be identified without vacant sites, on the premise that potential sites could then be brought forward over the Plan period to meet waste management needs. This approach will also help in dealing with waste as close as practicable to its source of origin.
- 4.74 The criteria in Policy 7 set out key issues that should be taken into account when considering applications on unidentified areas and unallocated sites.
- 4.75 This policy refers to applications:
- Submitted on land that is not designated as an existing strategic site;
 - submitted on land that is not designated as an Allocated Site (AS);
 - submitted on land that is not designated as Employment Land Areas of Search (ELAS); and
 - for Local Authority Collected Waste management facilities in areas outside of the broad areas in Policy 1 as identified in the Key Diagram.

Policy 7: General criteria for assessing planning applications outside of identified locations

Waste management proposals for Local Authority Collected waste within areas A, B, C, D and E but not on identified sites in the Waste Site Allocations document, or any locations outside of the Areas of Search will need to demonstrate how the proposal contributes to the Joint Municipal Waste Management Strategy for Hertfordshire.

Waste management facilities for waste that is not Local Authority Collected, being brought forward outside of existing strategic sites, Employment Land Areas of Search and Allocated Sites, will need to demonstrate how the proposal contributes to the overall spatial strategy for waste management within the county.

Proposals should have regard to all other relevant policies in this document and account shall be taken of:

- i) Meeting a specific waste management capacity shortfall;**
- ii) Scale and timeliness of providing facilities contributing to short-term capacity gap in waste management;**
- iii) Proximity to and service provision for major urban areas and main population areas and other localised sources of waste;**
- iv) Location within or adjacent to established or proposed Employment Land, Previously Developed Land, Industrial Land or compatible land use; and**
- v) Minimising transport distances to the existing network of waste management facilities and the strategic road network.**

Monitoring

Related Strategic Objectives	SO1, SO2, SO4, SO5, SO6, SO7
Core Strategy Targets	T5, T16
Core Strategy Indicators	IN18

Implementation

Mechanism	Delivery Partner(s)
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Co-location of facilities

- 4.76 There is a need for the sustainable use of waste materials and locations as detailed in Policy 12. A broad range of waste management facilities can be combined within the same site, enabling the complementary operation of a variety of waste management facilities and processes. These sites are generally known as waste parks/resource recovery parks, where waste is accepted and different waste processes are then carried out on the same site. This would aid in reducing the transporting of waste to different processing facilities, thereby minimising potential environmental impacts and disturbances to local residents.
- 4.77 PPS10 encourages Waste Planning Authorities to “*consider a broad range of locations including industrial sites, looking for opportunities to co-locate facilities together and with complementary activities*”.⁵² This is to reflect the concept of waste parks/resource recovery parks with dedicated functions including waste collection, co-located recycling and reprocessing businesses, grouped technology, innovation and businesses, education and training.
- 4.78 Consideration will also be had of the opportunities available for heat recovery/energy use as the co-location of potential heat customers and heat suppliers is important to ensure the maximum use of energy from waste in Hertfordshire. Waste water treatment works can also be suitable for anaerobic digesters and other waste uses.
- 4.79 Despite the potential for co-location of waste management facilities, the opportunities for this may be determined by other locational factors when considered against other policies within the Waste Development Framework.

⁵² Planning Policy Statement 10: Planning for Sustainable Waste Management, paragraph 20

Policy 8: Waste Parks/Combined Facilities

Proposals for waste management facilities which incorporate different types of waste management facilities at the same location (also known as Waste Parks) will be supported provided that there is no unacceptable cumulative impact on the local area.

The Waste Planning Authority will have regard to the benefits of the co-location of facilities and the protection of the environment and human health.

Monitoring

Related Strategic Objectives	SO1, SO2, SO4, SO5, SO6, SO7
Core Strategy Targets	T12
Core Strategy Indicators	IN9, IN35

Implementation

Mechanism	Delivery Partner(s)
Site Allocations DPD	Waste Planning Authority Waste operators Statutory consultees Other local, regional or national consultees
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Transport

- 4.80 Minimising the need to travel is a key national policy objective. As a measure of sustainability, dealing with waste as close as practicable to its origin, is an important consideration in the waste guidance. The principle is applied in Hertfordshire and given that the county's current

transport system is complex and congested with a heavy reliance on road transport, there is a need for a strategic transport policy as part of this Plan's strategy to actively promote alternatives to road transport.

- 4.81 PPS10 states that waste should be disposed of in one of the nearest appropriate waste management facilities. This limits the environmental impact of transporting waste long distances and helps to ensure that communities take responsibility for their own waste. One of the Hertfordshire's Waste Development Framework objectives aims to locate waste recycling, handling and reduction facilities as close as practicable to the origin of waste. Nevertheless, over the Plan period waste will still need to be transported and the proposals for growth and the need for self-sufficiency is likely to increase transport movements in the short-term.
- 4.82 Policy 9 aims to promote alternative modes of transport for waste. The Sustainability Appraisal suggests that this approach has potential to reduce adverse impacts on the environment and human health as well as the consumption of resources (particularly fossil fuels). However, as Hertfordshire's complex transport system means there is a high reliance on road transport, it is recognised that alternative modes of transport are not always feasible. This has implications on the location of waste management facilities, as facilities generally generate heavy lorry traffic. A shift to more sustainable modes of transport and implementing the proximity principle should also help minimise carbon emissions and help reduce air pollution and improve air quality.
- 4.83 There are five safeguarded rail heads in the county which could be developed in the future as a more sustainable means of waste movement.
- 4.84 To help facilitate the transport of the waste on Britain's waterways, the Waste Planning Authority will encourage new waterside waste management facilities on the Grand Union Canal and the River Lee Navigation. These navigable waterways are identified on the Key Diagram.
- 4.85 The following policy sets the overarching position in terms of transport and seeks to encourage the use of alternative means of transport for waste to that of the road network.

Policy 9: Sustainable Transport

Waste management facilities should be well located in relation to the strategic road network as defined in the Local Transport Plan unless it can be demonstrated that it can meet an identified local need. Support will be given to proposals which utilise forms of transport other than road including by water or rail.

Monitoring

Related Strategic Objectives	SO2, SO4
Core Strategy Targets	T14, T15
Core Strategy Indicators	IN13, IN14

Implementation

Mechanism	Delivery Partner(s)
Development Management	Waste Planning Authority; Statutory consultees; Other local, regional or national consultees and Hertfordshire County Council departments British Waterways Network Rail
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Climate Change

- 4.86 Climate change is an increasingly important issue and planning has been identified as one of the tools available to help achieve the objectives of shaping places that achieve lower carbon emissions and are more resilient to the threats and risks posed by unavoidable climate change impacts.
- 4.87 National planning policy provides the impetus for tackling climate change through the planning system, and set out in broad terms how planning should do this. National climate change policy continues this direction whilst drawing on new and emerging solutions to climate change mitigation and adaptation that planning can help to support and deliver.
- 4.88 The Waste development Framework must play its part in helping to achieve the objectives of climate change mitigation and can do this in a number of ways. The main contribution will be achieved by supporting a shift to more sustainable modes of transport, implementing the proximity principle within the overall spatial strategy, and supporting proposals which recover energy from waste.

- 4.89 Waste treatment facilities are perhaps in a favourable position in terms of the low and zero carbon solutions available to them. Policy 3 of this Plan encourages proposals for the recovery of energy from waste that will help deliver identified renewable and low carbon energy opportunities in the county. There are many examples where waste facilities utilise part of the energy recovered during the waste treatment process to meet the energy demands of the facility and ancillary buildings.
- 4.90 The Waste Core Strategy and Development Management Policies DPD also supports the recommendation of the Hertfordshire Renewable and Low Carbon Energy Technical Study to adopt the 'energy hierarchy' when seeking to deliver low carbon buildings and carbon reduction requirements set out in Part L (Conservation of fuel and power) of schedule 1 of 'The Building Regulations 2010 and the Building (Approved Inspectors etc) Regulations 2010'.⁵³ As such, proposals should firstly reduce the demand for energy through passive design measures. Energy efficient heating and lighting technologies should subsequently be employed followed by any suitable low and zero carbon energy technologies, for example by connecting to a decentralised energy system (where feasible) or employing micro generation technologies.
- 4.91 It is important for new waste development to also be aware of the risks which climate change impacts pose, and to address these effectively through various means. Within Hertfordshire, the unavoidable consequences of climate change can be classified in four general ways: overheating; pressure on water resources; flooding and damage caused by intense periods of precipitation; and unstable ground conditions. In particular, the risks posed by increased river flooding, increased risk of flash flooding, storm damage, subsidence, and periods of very high temperatures should be considered when designing and assessing waste development proposals. These and other risks will increase over time and must be factored into all long term development and planning decisions. Hertfordshire's waste infrastructure needs to be resilient to changing weather patterns and extreme weather related events if it is to adequately serve the county's needs over the Plan period and beyond.

Policy 10: Climate Change

Proposals for waste management facilities must have regard to measures that minimise greenhouse gas emissions and to climate change risks that will affect the development over its lifetime. Proposals must demonstrate how these challenges will be effectively addressed and/or managed.

⁵³ <http://www.communities.gov.uk/planningandbuilding/buildingregulations/>

Monitoring

Related Strategic Objectives	SO1, SO2, SO3, SO4, & SO5
Core Strategy Targets	T18
Core Strategy Indicators	IN16

Implementation

Mechanism	Delivery Partner(s)
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Building Regulations	Building Control
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Criteria for Assessing Planning Applications

- 4.92 When assessing applications for waste management facilities the county council as Waste Planning Authority will look for the most appropriate locations, taking into account the importance of balancing the need for waste management facilities with the need to protect the environment and minimise health risks. As such, the following policy sets out the criteria against which proposals for new waste management facilities will be assessed, including those in areas outside of the identified areas in the Key Diagram in Appendix A and the existing strategic sites, Allocated Sites and Employment Land Areas of Search that will be set out in the Waste Site Allocations Development document.
- 4.93 The reuse of Previously Developed Land ('PDL') for waste management facilities is prioritised. Given the need for neighbouring land uses to be compatible and sensitive to groundwater and flooding issues, some previously developed sites will be more appropriate than others. Most new waste management facilities should fit in well in commercial and industrial areas, often identified as employment areas within Local Plans and Local Development Frameworks. PDL development has clear environmental benefits as it encourages the efficient use of land and minimises conflict with environmental protection policies.

- 4.94 In principle, existing waste sites can be considered suitable for the location of new built waste facilities in planning terms and priority should be given to the expansion of these sites where there is potential to do so, subject to employing mitigation measures on vulnerable sites within source protection zones to the required standards specified by the Environment Agency. For sites in these areas priority should first be given to reducing the risk to the water environment by dealing with lower risk wastes and/or reducing the quantities of waste dealt with at these sites. Any proposals within the county that would adversely affect the environmental and historical assets which are considered important in Hertfordshire would not be supported.
- 4.95 If assessed in conjunction with other locational criteria, where appropriate, the Sustainability Appraisal supports the approach of expanding existing sites as it will reduce the overall number of sites needed. Government guidance in PPS10 also promotes the benefits of on-site management, to minimise the transport of waste. There may be instances where land adjoining existing waste sites could be satisfactorily incorporated as part of proposals. Though the preference will continue to be for the use of PDL, there may be cases where the use of some greenfield land can be justified.
- 4.96 Hertfordshire's vision states that waste management facilities will reduce environmental and social impacts. Therefore, development should not have an unacceptable adverse impact on the environment and quality of life. This includes the cumulative impact of a development. As such, in addition to the direct impact of the proposed facility, consideration should be given to the existing activity and impact in the area. The definition of an unacceptable environmental impact will vary depending on the characteristics of the proposed site. However, in line with recommendations in the final Sustainability Appraisal, it can be broadly described as impacts that reduce the ability to achieve the environmental protection objectives of International Directives and Government. In addition a relevant permit from the Environment Agency, responsible for the control of processes and emissions, could also aid the assessment and decision making process.
- 4.97 It is important that new waste development does not increase the risk of flooding. National planning policy states that all planning applications for new development in flood zones 2 and 3 should include site-specific flood risk assessment to demonstrate how any flood risk will be managed, taking into account the effects of climate change. The county council is also required to prepare a Strategic Flood Risk Assessment⁵⁴ (SFRA) in consultation with the Environment

⁵⁴ The Level 1 Strategic Flood Risk Assessment can be viewed here:
<http://www.hertsdirect.org/services/envplan/plan/hccdevplan/wasteplan/wstdevfrmrk/wasco/rstratdmpd/flriskasmt/>

Agency. This identifies areas of flood risk in the county and has been used to inform the site selection process. A detailed explanation of this process will be outlined in the Waste Site Allocations document.

- 4.98 Hertfordshire has a number of environmental and historical assets and it is important that these are protected. It is important that waste management development does not have any permanent adverse effect on these assets. Equally, it is important that any opportunities to enhance these assets are taken.
- 4.99 In the case of Natura 2000 sites⁵⁵ (that is, Special Areas of Conservation, Special Protection Areas) and Ramsar sites, waste management development, mineral extraction and related activities (including transport impact) should not have any adverse effects on the integrity of these assets. For example, in assessing potential effects on these Natura 2000 and Ramsar sites, regard should be had to possible changes to hydrology and air quality and disturbance which could have an adverse impact on the integrity of these internationally designated sites.
- 4.100 The Core Strategy objectives and policies to promote sustainable transport, move waste management practices up the Waste Hierarchy, advocate self-sufficiency and promote the proximity principle will help to minimise air pollution. However, due to the range of uncertainties surrounding future waste facilities and transport it is not possible for the Appropriate Assessment to clearly establish if waste related emission to air are likely to decrease or increase under the Waste Core Strategy.
- 4.101 It is recognised that different waste streams and different types of facility will have different impacts. For example, the treatment of hazardous waste will need to be controlled in an enclosed environment, whereas windrow composting can be in an open area, but there may be issues relating to odour and visual impact. Policy 11 provides a broad framework for ensuring all types of facilities are appropriate. The Development Policies will add to this framework by detailing key location and siting considerations for different types of facilities. In addition, the Waste Site Allocations DPD will highlight the suitability of certain types of waste management facilities in particular locations. This policy should be considered along with other LDFs within the county.

⁵⁵ Natura 2000 is the European wide network of protected areas developed under the European Commission '[Habitats Directive](#)' (Directive 92/43/EEC) and the '[Birds Directive](#)' (Directive 79/409/EEC). http://ec.europa.eu/environment/nature/natura2000/index_en.htm

Policy 11: General Criteria for Assessing Waste Planning Applications

Planning applications for proposals for waste management facilities will be granted provided that:

- i) the siting, scale and design of the development is appropriate to the location and the character of the surrounding natural and built environment;**
- ii) the landscaping and screening of the site is designed to effectively mitigate the impact of the proposal;**
- iii) the proposed operation of the site would not adversely impact upon amenity and human health;**
- iv) the proposed development would not adversely impact upon wildlife habitats, the natural, built or historic environments;**
- v) the proposed operation of the site would not adversely impact upon wildlife habitats, the natural, built or historic environments;**
- vi) adequate provision is made for the restoration, aftercare and management of the site to an agreed after-use;**
- vii) applications for hazardous waste facilities should satisfactorily address issues of safety and risks to human health wildlife habitats, the natural, built and historic environment;**
- viii) proposals on greenfield sites can demonstrate that no better suitable Previously Developed Land is available;**
- ix) there would not be an unacceptable adverse cumulative impact on the local area; and**
- x) it is not in conflict with other policies in this document**

Monitoring

Related Strategic Objectives	SO1, SO2, SO4, SO6
Core Strategy Targets	T18, T22, T24
Core Strategy Indicators	IN16, IN22, IN23

Implementation

Mechanism	Delivery Partner(s)
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of Planning Permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Sustainability and efficient use of resources

- 4.102 In order to ensure the efficient use of resources, it is important that waste can be regarded as a secondary resource and used efficiently. Sustainable design, construction and demolition are important means of dealing with waste at the high end of the waste stream. Essentially waste generation through development arises on two principal accounts:
- waste during the construction process including refurbishment and/or demolition of buildings; and
 - waste generated through the occupation of buildings.
- 4.103 Together with the construction industry, planning and building control regimes have a major role in ensuring that sustainable design, construction and demolition principles are applied to new as well as existing development in Hertfordshire.
- 4.104 The reuse of Construction & Demolition material on site has a major role in achieving sustainable waste management, as it:
- promotes resource efficiency by reducing the need for primary materials;
 - minimises the amount of waste that needs to be disposed of in the county; and
 - reduces the need for transport where materials can be re-used in-situ.
- 4.105 As such, the reuse of inert waste in construction projects is encouraged by the county council. However, consideration should also be given to any environmental aspects limiting reuse, such as the landscape impact of reusing all excavated spoil.
- 4.106 With Hertfordshire potentially facing significant housing and employment growth, it is important that the design and construction of new development in the county is as sustainable as possible including being energy efficient in line with the 'energy hierarchy' (see

paragraph 4.90). This Plan provides clarity for both waste and non-waste development in Hertfordshire. Policy 12 aims to ensure that new development is designed and constructed to promote the sustainable management of waste and existing development is reused as much as possible. The Sustainability Appraisal report commented that efficiency could be improved by reusing existing buildings. Instead of demolition, which could generate waste, existing buildings could be adapted to other uses. This should however be subject to other policies, regulations and safety. It is not uncommon to find industrial buildings being converted to flats rather than being demolished.

- 4.107 The county council, as Waste Planning Authority, will apply these principles when determining planning applications for waste facilities. However, given that most planning applications in the county are determined by the District and Borough Councils, it is vital that a consistent approach is taken across the county. As such, Districts and Boroughs will have regard to Policy 12 when considering planning applications for which they are the Local Planning Authority. In addition, the county council will comment on strategic applications that fail to adequately address the requirements.
- 4.108 The visual impact of proposed waste management facilities is more usually associated with landscape issues; however such impacts may arise from the site location, planned layout and design of developments. These factors will be particularly important for proposals on employment land.
- 4.109 It is important that new development is designed to facilitate the storage and recycling/composting of waste. Hertfordshire's target is higher than national statutory requirements because of the shortage of non-inert landfill void. To help communities deal with their own waste and increase waste recycling and composting, it is important that there are adequate networks of local 'bring' recycling facilities for households and businesses. In addition, to complement improvements in the household collection of green waste and recycled materials, it is vital that new developments have sufficient internal and external space for the separation and storage of different types of waste.
- 4.110 Other implications of design need to be considered when assessing waste management proposals. National planning policy states that flood risk to and from new development can be reduced through location, layout and design, incorporating Sustainable Drainage Systems (SUDS). National planning policy also states that high quality inclusive design in the layout of new developments and individual buildings should be promoted in Plan policies.
- 4.111 To further assist the implementation of Policy 12, guidance is contained in 'Building Futures: a Hertfordshire guide to promoting sustainability in development', prepared by all eleven local authorities in the Hertfordshire. The purpose of 'Building Futures' is to provide practical, user-friendly guidance for planning officers and developers

on how to make development in Hertfordshire as sustainable as possible. It is an evolving web-based guidance document, which will be updated to address emerging policy requirements, legislation changes and new examples of good practice. The 'Building Futures' guide includes a waste module and can be viewed at www.hertslink.org/buildingfutures.

Policy 12: Sustainable Design, Construction and Demolition

Where appropriate new and existing development, including waste management facilities, must contribute to resource efficiency, the reduction of carbon emissions and the effective management of climate risk.

As a minimum, proposals will be required to address the principles of sustainability by incorporating the following:

- i) construction and demolition methods that minimise waste generation and re-use/recycle materials and buildings, as far as practicable on site;**
- ii) design principles and construction methods that minimise the use of primary aggregates, use of water are consistent with the energy hierarchy and encourage the use of high quality building materials made from recycled and secondary sources;**
- iii) good and innovative design with layout principles that allow for the effective sorting, recycling and composting of waste where appropriate;**
- iv) demonstrate that no significant noise or light intrusion will arise from the development, and include measures to minimise adverse impact on human health, amenity and wildlife habitats; and the natural and built environment; and**
- v) Sustainable Drainage Systems (SUDS);**

In particular waste management facilities should be enclosed within a building wherever possible which, along with plant and machinery, should be in keeping with the surrounding setting and landscape/townscape.

All new development proposals should demonstrate how the principles of integrated sustainable development, as set out in the Hertfordshire Building Futures Guide, have been addressed.

Completed Site Waste Management Plans should support relevant developments to include details of the management of waste at construction and demolition sites and should be passed onto the Waste Planning Authority to collate the data.

Monitoring

Related Strategic Objectives	SO1, SO3
Core Strategy Targets	T17
Core Strategy Indicators	IN15

Implementation

Mechanism	Delivery Partner(s)
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators
Hertfordshire County Council Consultation Database	Waste Planning Authority

Transport & Traffic

- 4.112 The county is highly dependent on road transport and as such there are major implications for waste management and site selection. The local road network is frequently at, or near, full capacity and the situation is worsened when the efficiency of the highway network is interrupted by difficulties or failures. Through consultation, traffic issues have proved to be a cause for concern in relation to waste sites in Hertfordshire, as operational vehicles often have to use rural roads to link with the strategic highway network which can impact on local residents and the surrounding area.
- 4.113 The majority of waste is transported by road. Traffic arising from waste management can be significant due to the high level of lorry movements, particularly Heavy Goods Vehicles (HGVs), within and outside of waste sites. In addition, if waste facilities can be used by the public, car-borne journeys can also be high.
- 4.114 Policy 13 sets the operational criteria to be considered when assessing transport issues associated with waste management proposals. Mitigating measures include noise, odour, dust and vibration.

Policy 13: Road Transport & Traffic

New waste related development and the expansion of existing waste management facilities will be permitted where it is clearly demonstrated that the provision for vehicle movement within the site, the access to the site, or the conditions of the local highways network are such that the traffic impacts likely to be generated would not have a significant adverse impact on:

- i) highway safety;**
- ii) the effective operation of the highway network;**
- iii) amenity;**
- iv) human health; and**
- v) the historic and natural environment.**

In assessing the likely impact of traffic movements, account will be taken of:

- i) any highway improvements;**
- ii) traffic management; or**
- iii) other mitigating measures that may be provided in association with the development and included within a design and access statement.**

Applicants must demonstrate, by a detailed transport appraisal, that the safest and least environmentally damaging methods of transporting waste are both practically achievable and will be used to minimise road miles and where appropriate, utilise more sustainable modes of transport such as by rail and water.

Monitoring

Related Strategic Objectives	SO1, SO2, SO4
Core Strategy Targets	T16
Core Strategy Indicators	IN18

Implementation

Mechanism	Delivery Partner(s)
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments

Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Buffer Zones

- 4.115 The following policy has been formulated to ensure that waste management takes place in an organised manner, whilst minimising any adverse environmental effects on neighbouring sensitive land uses such as residential environments, hostels, nursing and residential homes, hospitals, hotels, schools and other higher institutions, zoos and animal collections, etc.
- 4.116 Waste management facilities vary in compatibility with other land uses. This policy seeks to ensure that waste management facilities are appropriately sized and sensitively located so that any environmental and social impacts of the locality are reduced and that sensitive land uses and water protection zones are not compromised with the siting of waste management facilities in close proximity.

Policy 14: Buffer Zones

Waste management proposals should incorporate an appropriately defined buffer zone in order to safeguard sensitive land-uses. The following matters will be taken into account when delineating the buffer zone at the application stage for development:

- i) type of waste and the type of waste management facility including processing and recovery methods:**
- ii) natural and manmade features, which may reduce the impact of the development, for example landscape features, e.g. woodland, trees, hedgerows, watercourses, roads, railway lines etc;**
- iii) the direction of the prevailing wind; and**
- iv) the proximity of the proposed development to neighbouring land uses.**

Waste management proposals should also include appropriate buffer zones to watercourses to ensure the ecology and integrity of the watercourse and river corridor is protected.

Monitoring

Related Strategic Objectives	SO1, SO6
Core Strategy Targets	T18, T19, T21, T22, T23, T24
Core Strategy Indicators	IN16, IN22, IN23, IN35

Implementation

Mechanism	Delivery Partner(s)
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Rights of Way

- 4.117 There is a recognised need for a well managed network of Rights of Way based on existing Rights of Way and, where appropriate , new links and alterations. The following policy has been formulated to ensure that waste management proposals take account of maintaining and where possible enhancing public access.
- 4.118 This policy seeks to ensure that waste management facilities are appropriately sized and sensibly located so that any impacts on the Rights of Way in the locality are minimised.

Policy 15: Rights of Way

Waste management proposals should ensure that public Rights of Way are not adversely affected or, where this is not possible, that good quality, safe and convenient alternative provision is made or suitable replacement Right(s) of Way is secured. The use of Rights of Way to obtain vehicle access to a site will not be permitted unless it can be clearly demonstrated that the safety of Rights of Way users can be adequately protected. Proposals should enhance the public Rights of Way network through the creation of new Rights of Way and/or open space, or the improvement of existing access.

Monitoring

Related Strategic Objectives	SO1, SO6
Core Strategy Targets	T24
Core Strategy Indicators	IN22

Implementation

Mechanism	Delivery Partner(s)
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Environmental Effects, Protection and Mitigation

- 4.119 The purpose of the Waste Development Framework is to balance the need for waste management facilities with the potential impacts those facilities may have on the local community and the environment.
- 4.120 Hertfordshire has a diversity of environmental assets, which are varied in character, providing a high quality environment for those who live and work in the county. It also has a rich cultural heritage, with numerous historic towns and villages and other important historic assets throughout the county. There are a variety of habitats present in the county and two main river catchments pass through Hertfordshire.
- 4.121 The quality of the environment plays a key role in both maintaining and enhancing quality of life and contributing to the wider economic development and history of the county. The justification for these policies is to ensure that when locating facilities the primary aim is to minimise impacts before considering their management and/or mitigation. The following policies define specific operational measures that proposals for waste management should include to ensure that negative impacts on air, water, soil, etc are minimised, protection of Hertfordshire's most valuable natural and historic environmental assets are achieved and to reduce impacts of pollution on local health and amenity.

- 4.122 The county council recognises that there may be instances whereby trees are lost from sites to accommodate waste developments, however this should not result in long term impacts on the wider environment. The direct replacement of such vegetation is not considered to be substantial enough and does not contribute to the improvement of the area where such developments provide opportunity. Therefore the county council seeks to double the number of trees planted as a sufficient enhancement.
- 4.123 Hertfordshire is under significant pressure from development, including pressure arising from demand for new waste management facilities to accommodate increases in waste arisings. These development pressures could lead to a range of cumulative impacts on biodiversity, water quality and availability, air quality, tranquillity, as well as potential impacts on landscape character, cultural heritage and soil quality. It is important that any waste management facility does not have any permanent adverse effects on Hertfordshire's assets. It is also important that any opportunities to enhance these assets are taken.
- 4.124 The Sustainability Appraisal report identified that the Waste Development Framework must ensure that adequate protection is afforded to Hertfordshire's high quality environment, and protection and enhancement encouraged where possible. Furthermore, new waste management facilities must be carefully located and employ best practice measures to avoid adverse impacts on the environment and human health.
- 4.125 The following policies will be used in determining planning applications to assess possible environmental effects on the receptors listed. Hertfordshire's important environmental assets are defined in Policies 16 & 17. The policies stated below balance the need for waste management facilities with environmental protection.

Policy 16: Soil, Air and Water

Waste management proposals will be permitted where it can be demonstrated that they meet the following criteria:

- i) Will not have a negative impact on the soil or water environment, including main rivers, floodplains, ordinary water courses, other water bodies such as lakes and ponds, and groundwater resources unless appropriate measures can be imposed to mitigate harmful effects;**
- ii) Adequately provide for the restoration, aftercare and management of the site to an agreed after-use;**
- iii) Not significantly degrade the quality of air (particularly from dust and emissions); and**
- iv) Where possible avoid floodplain areas as demonstrated**

with a Sequential Test and if this can not be achieved, reduce the risk of flooding or not have a negative impact on storage or flow capacity of the floodplain, in line with the exceptions Test where required.

Monitoring

Related Strategic Objectives	SO1, SO6
Core Strategy Targets	T18, T20, T26
Core Strategy Indicators	IN16, IN26, IN27, IN35

Implementation

Mechanism	Delivery Partner(s)
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

International and National Sites and Features of importance

- 4.126 Sites and features of international and national importance enjoy national planning policy protection by statute and therefore should not be included in Local Plans. However, measures are required to protect them and where possible, enhance them while achieving sustainable provision of waste management facilities. These sites within the county include Sites of Special Scientific Interests (SSSIs), Ramsar sites, Schedule Ancient Monuments, Listed Buildings, National Trust Land, Historic Parks, Areas of Archaeological Importance, The Chilterns Area of Outstanding Natural Beauty (AONB), Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

Policy 17: Protection of Sites of International and National Importance

Waste management proposals will be permitted where it can be demonstrated that they would not have an irreversible adverse impact on the following:

- i) the Chilterns Area of Outstanding Natural Beauty;**
- ii) Special Areas of Conservation and Special Protection Areas;**
- iii) National Nature Reserves**
- iv) Ramsar sites;**
- v) Sites of Special Scientific Interests (SSSIs);**
- vi) Scheduled Ancient Monuments;**
- vii) Listed Buildings and their settings;**
- viii) National Trust Land;**
- ix) Historic Parks;**
- x) Areas of Archaeological Importance;**

These assets should be conserved and where possible opportunities sought to enhance them.

Monitoring

Related Strategic Objectives	SO1, SO6
Core Strategy Targets	T19, T21, T22, T23
Core Strategy Indicators	IN19, IN20, IN21, IN23, IN35

Implementation

Mechanism	Delivery Partner(s)
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Regional and Local Sites and Features of Importance

- 4.127 There are also sites and features which are regionally and locally designated for their importance due to their interests and history within the county. These sites and features should be afforded the required level of protection and where possible, enhanced. However, where there are unavoidable negative impacts, there should be compensatory provisions for their replacement by creating new ones.

Policy 18: Protection of Regional and Local designated sites and areas

Waste management proposals will be permitted where it can be demonstrated that they would not have an irreversible adverse impact on the character, appearance, ecological, geological and amenity value of the following Regional and Local Sites and Features of importance:

- i) Lee Valley Regional Park;**
- ii) Historic Parks and Gardens of Regional and Local importance and their setting;**
- iii) Wildlife Sites, ecological features of Wildlife Site quality and Prime Biodiversity Areas;**
- iv) Local Nature Reserves;**
- v) Regionally Important Geological/Geomorphological Sites (RIGS);**
- vi) Species of fauna and flora protected by law or identified in the UK Biodiversity Action Plan as in need of particular conservation action;**
- vii) Woodland (including ancient woodland), trees and hedgerows of landscape, amenity ecological or historical importance;**
- viii) Buildings of architectural or historic merit;**
- ix) Conservation Areas and their setting;**
- x) Unregistered historic parks and gardens, and their setting;**
- xi) Sites with historic associations;**
- xii) Areas of recreational value;**
- xiii) Areas of Common Land;**
- xiv) Best and Most Versatile agricultural land; and**
- xv) Areas of archaeological importance**

These assets should be conserved and where possible opportunities sought to enhance them. Where there are unavoidable negative impacts, adequate mitigation measures should be proposed to address such impacts and/or compensation provided for their replacement.

Monitoring

Related Strategic Objectives	SO1, SO6
Core Strategy Targets	T19, T21, T22, T23
Core Strategy Indicators	IN19,IN20, IN21, IN23, IN35

Implementation

Mechanism	Delivery Partner(s)
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Policy 19: Protection and Mitigation

In order to protect and safeguard Hertfordshire's diversity of natural and historic environmental assets and in order to minimise the impacts of development, proposals should:

- i) Where appropriate, provide opportunities to contribute to the delivery of the national, regional and local Biodiversity Action Plan targets;**
- ii) Where appropriate protect and enhance existing woodland, trees and hedges through improved management and new planting, including management, over the long-term. Where the quantity or quality of existing woodland, trees and hedges is lost, redress in at least equivalent measures will be sought, with species to be agreed with the Waste Planning Authority, so as to recreate a suitable landscape and habitat;**
- iii) Not result in the permanent loss in quality or extent of the best and most versatile agricultural land unless there is an overriding need for the development, and either sufficient land in lower grades is unavailable, or available lower grade land has an environmental value which outweighs the agricultural considerations; and**
- iv) Include measures to minimise visual intrusion and any adverse impact on the local landscape and countryside.**

Monitoring

Related Strategic Objectives	SO1, SO6
Core Strategy Targets	T19, T21, T22, T23
Core Strategy Indicators	IN19, IN20, IN21, IN23, IN35

Implementation

Mechanism	Delivery Partner(s)
Development Management	Waste Planning Authority Statutory consultees Other local, regional or national consultees and Hertfordshire County Council departments
Monitoring of planning permissions (monthly)	Waste Planning Authority Neighbouring Local Authorities
Annual Waste Survey (sites and operators)	Waste Planning Authority Waste operators

Monitoring and Enforcement

- 4.128 The county council considers it important to pro-actively monitor waste management sites to ensure that they maintain high standards of operation and accord with planning regulations.
- 4.129 The county council has a set of standards and protocols for enforcement which are set out in 'Standards and Code of Practice for Development Control Enforcement'. The county council is committed to ensuring compliance with planning regulations. This commitment to its enforcement powers, set out in the following policy, is considered important to protect the environment and Hertfordshire's residents against any negative impacts resulting from mineral and waste development.
- 4.130 Breaches of planning conditions, and development occurring without planning permission, are dealt with under the enforcement powers of the county council, should they decide that it is expedient to take action to remedy such breaches under Circular 10/97. Annual monitoring reports which are submitted to the Government by the end of December each year are a means of presenting this data to show instances of action taken.
- 4.131 This policy relates to the broader enforcement perspective in the management of waste development, to ensure protection of the surrounding environment and the need for waste management facilities to be well designed, appropriately sized and sensitively located so that they reduce the environmental and social impacts, meet the needs of local communities and businesses and enhances the locality.

Policy 20: Monitoring and Enforcement

The county council will, where it considers it expedient to do so, rigorously pursue its powers to remedy breaches of planning control. In deciding the appropriate course of action to be taken, the county council will have regard to its adopted 'Standards and Code of Practice for Development Control Enforcement' and other factors relevant to the particular circumstances of each case.

For annual monitoring purposes waste site operators shall provide the Waste Planning Authority with information detailing waste imports and exports from the site.

Monitoring

Related Strategic Objectives	SO6, SO7
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Core Strategy Targets	T20, T25, T26, T27, T28
Core Strategy Indicators	IN24, IN25, IN26, IN27, IN31

Implementation

Mechanism	Delivery Partner(s)
Site monitoring	Waste Planning Authority Waste operators Members of the public

Chapter 5: Monitoring and Implementation Framework

- 5.1 In order to monitor the effective implementation of the Waste Core Strategy and Development Management Policies, there is a need to set out clear and measurable outcomes against which the implementation of the Plan can be assessed.
- 5.2 The Monitoring Framework set out in Table 12 and 13 contains a series of Specific, Measurable, Achievable, Realistic and Time-based (SMART) targets and contextual indicators against which the implementation of the Plan can be assessed and provides the basis for identifying how the Waste Core Strategy and Development Management Policies DPD should be maintained or updated. It is not the purpose of the targets and indicators to guide future development but rather assess the effectiveness of both the Core and Development Management Policies in delivering the Vision and Objectives of the Plan and have been developed to provide a consistent basis for monitoring the performance of the Plan.
- 5.3 Each of the indicators and progress towards meeting the targets will be reported by the Waste Planning Authority through its Monitoring Report. Through the Monitoring Report, the Waste Planning Authority will identify whether or not action needs to be taken to address implementation issues and where appropriate set out the necessary actions so that the Vision and Objectives of the Plan can be realised over the Plan period.
- 5.4 The Monitoring Report will also identify and review the availability of waste data that may have emerged since the adoption of the Plan. In doing so, the Waste Planning Authority will consider whether or not any new waste data collected nationally or locally through the Regional Waste Technical Advisory Body has a significant impact upon waste arisings in Hertfordshire and how this may affect the Plan. The Monitoring Report will also review any national policy changes in relation to waste management that may impact upon the Plan.
- 5.5 Through the Monitoring Report, the Waste Planning Authority will keep this monitoring framework under review to ensure that an effective approach to monitoring the implementation of the Plan is maintained and that the targets and indicators used to monitor the Plan remain appropriate.

Table 12: Hertfordshire Waste Core Strategy and Development Management Policies Monitoring Framework

Target		Delivering Strategic Objectives	Related Policies	Relevant Indicators	Additional References
T1	A year on year reduction in the amount of untreated waste sent to landfill over the Plan period.	SO1, SO3, SO5, SO7	4	IN5 IN6 IN8 IN12	Table 11 (Current Landfill)
T2	A reduction in the amount of waste produced per household to 1 tonne per year per household over the Plan period.	SO2, SO6	1, 4	IN2 IN30	Table 4 (LAC arisings and treatment)
T3	New residual waste treatment and/or transfer capacity located within Areas of Search C – E by 2017/18 to treat the identified residual LAC waste arisings over the WCSDM Plan period.	SO1, SO2, SO7	1	IN1 IN4 IN8	Table 6 (LAC capacity shortfall and indicative facility numbers)
T4	New organic treatment facilities located within Area of Search A and B by 2017/18 with sufficient minimum capacity to meet recycling and composting targets for LAC waste over the Plan period	SO1, SO2, SO7	1	IN1 IN4 IN8	Tables 5 and 6 (LAC existing and planned capacity totals and indicative facility numbers)
T5	New residual waste management treatment capacity sufficient to treat the identified residual non-LAC waste arisings over the Plan period	SO1, SO2	1, 7	IN1 IN8	Table 9 (capacity shortfall of non LAC waste and indicative facility numbers)
T6	A minimum of 60% of all LAC waste to be recycled or composted by 2026.	SO1, SO3, SO6	1, 2	IN2	Table 4 (LAC arisings and

					treatment)
T7	A minimum of 55% of all Commercial waste and 60% of all Industrial waste to be recycled or composted by 2026	SO1, SO3, SO6	1, 2	IN3	Table 7 (existing commercial and industrial waste capacity)
T8	A minimum of 90% of Construction Demolition and Excavation Waste to be diverted from landfill by 2026	SO1, SO3, SO6	4, 12	IN6 IN3	Table 7 (existing commercial and industrial waste capacity)
T9	0% of untreated waste to be imported from London after 2015	SO2, SO7	1	IN5 IN6	Table 3 (Waste imports and exports)
T10	Respond to all development proposals which the County Council as Waste Planning Authority are consulted on or considers will significantly impact upon strategic waste management facilities in Hertfordshire.	SO5, SO6	5, 2	IN7	n/a
T11	No loss of safeguarded waste sites for non-waste related uses	SO1, SO2	5	IN7 IN32	n/a
T12	Increasing co-location of complimentary waste facilities	SO1, SO2	8	IN9	n/a
T13	An overall increase in the number of waste management facilities with an element of energy recovery	SO5	3	IN10	n/a
T14	An increase in the number of permitted applications which include alternatives to road transport	SO4	9	IN14	n/a
T15	All applicable road-borne waste management facilities to be located no more than 5km from the strategic road network	SO2, SO4	9	IN13	n/a
T16	All planning permissions to be granted in accordance with advice received from the Local Highway Authority and Highways Agency.	SO1, SO4	7, 13	IN18	n/a
T17	All developments with a project cost of over £300,000 to produce a Site Waste Management Plan	SO3, SO6	12	IN15	n/a
T18	No planning permissions to be granted contrary to the advice of the Environment Agency or local Environmental Health	SO1	3, 11, 10, 14, 16	IN16, IN35	n/a

	Officer in relation to pollution control, flood risk, water quality, air quality or other potential health impacts				
T19	All planning permissions to be granted in accordance with advice received from English Heritage, Hertfordshire County Council Historic Environment Unit or any other consulted professional body in relation to the historic environment.	SO1	14, 17, 18, 19	IN20, IN35	n/a
T20	No new or operating waste facilities to result in pollution or contamination of the soil environment	SO1	16, 20	IN27	n/a
T21	All planning permissions to be granted in accordance with advice received from Natural England or other consulted professional body in relation to the natural environment	SO1	14, 17, 18, 19	IN19, IN35	n/a
T22	All planning permissions to be granted in accordance with advice received from Sport England or any other consulted professional body in relation to recreational uses	SO1	11, 14, 17, 18, 19	IN23, IN35	n/a
T23	All planning permissions to be granted in accordance with advice from Herts Biological Records Centre, Herts and Middlesex Wildlife Trust or other consulted professional body in relation to wildlife and habitats.	SO1	14, 17, 18, 19	IN21, IN35	n/a
T24	All planning permissions to be granted in accordance with advice from Hertfordshire County Council Rights of Way Unit or other consulted professional body in relation to RoW.	SO1	11, 14, 15	IN22, IN35	n/a
T25	An overall reduction in the number of yearly breaches of planning control	SO1	20	IN24, IN25, IN26, IN27	n/a
T26	A reduction of substantiated complaints relating to adverse impacts upon amenity of operating waste management facilities	SO1	16, 20	IN24, IN25, IN26, IN27	n/a
T27	A reduction in the number of substantiated complaints relating to highway safety and traffic impacts of operating waste management facilities	SO1	20	IN24, IN25	n/a
T28	At least 80% response rate to the WPA's Annual Survey	SO6	20	IN31	n/a

Table 13: Hertfordshire Waste Core Strategy and Development Management Policies Schedule of Indicators

Indicator		Related Policies	Related Targets	Data Collection
IN1	Capacity of new waste management facilities by type in m ³ and tonnes	1	T3, T4, T5	Waste Planning Authority's Annual Survey / Planning Permissions
IN2	Amount of LAC waste arising by management type in m ³ , tonnes and the percentage each type represents of the total LAC waste.	1, 2	T2, T6	WDA Data
IN3	Amount of non-LAC waste arising by management type in m ³ , tonnes and the percentage each type represents of the total non-LAC waste.	1, 2	T1, T7	WPA Annual Survey / Environment Agency Waste Interrogator / WTAB
IN4	Capacity of new LAC waste management facilities by type in m ³ and tonnes within the five Areas of Search A-E	1	T3	WPA Annual Survey / WDA Annual report / Planning Permissions
IN5	Percentage of LAC waste imported to and exported from Hertfordshire for treatment and disposal.	1	T1	WDA Data / WPA Annual Survey / EA Waste Interrogator / WTAB
IN6	Percentage of non-LAC waste imported to and exported from Hertfordshire for treatment and disposal	1	T1, T7 T8	WPA Annual Survey / EA Waste Interrogator / WTAB
IN7	Number and percentage of planning consultations the WPA has responded to	2, 5	T10	WPA data
IN8	Total waste management capacity in m ³ , tonnes and by type	1, 5	T1, T3, T4, T5	Planning Permissions / WPA Annual Survey
IN9	Number of planning permissions granted for waste parks or combined waste management facilities	8	T12	Planning Permissions
IN10	Number of, capacity and energy output of energy recovery enabled waste management facilities	3	T13	Planning Permissions
IN11	Total waste capacity in m ³ , tonnes and by technology	1, 3	Monitoring	Planning Permissions /

			Only	WPA Annual Survey
IN12	Waste type disposed of in landfill or used for landraise in m ³ , tonnes and percentage share of total waste managed	4	T1, T8	Planning Permissions / EA Waste Interrogator /WDA Data
IN13	Percentage of applicable waste management facilities located within 5km of the strategic road network	9	T15	Planning Permissions
IN14	Number and capacity of non road-borne waste management facilities permitted	9	T14	Planning Permissions
IN15	Percentage of applicable planning permissions that have provided a Site Waste Management Plan	12	T17	Local Planning Authority and WPA Planning Applications
IN16	Number of planning permissions granted contrary to the advice of the Environment Agency or local Environmental Health Officer on pollution control, flood risk, water quality, air quality or other potential health impacts	3, 11, 10, 14, 16	T18	Planning Permissions /WPA Data
IN17	Number of new or existing waste management facilities given permission in the Green Belt	6	Monitoring Only	Planning Permissions
IN18	Number of planning permissions granted contrary to the advice of the Local Highway Authority or Highways Agency advice	7, 13, 15	T16	Planning Permissions /WPA Data
IN19	Number of planning permissions granted contrary to the advice of Natural England or other consulted professional body in relation to the natural environment	17, 18, 19	T21	Planning Permissions /WPA Data
IN20	Number of planning permissions granted contrary to English Heritage or Hertfordshire County Council, Historic Environment Unit or other consulted professional body advice on historic environment grounds	17, 18, 19	T19	Planning Permissions /WPA Data
IN21	Number of planning permissions granted contrary to HBRC, Herts Middlesex Wildlife Trust or other consulted professional body advice in relation to wildlife and habitats	17, 18, 19	T23	Planning Permissions /WPA Data
IN22	Number of planning permissions granted contrary to advice of Hertfordshire County Council Rights of Way Unit or other consulted professional bodies in relation to RoW issues	11, 14, 15, 17	T24	Planning Permissions /WPA Data

IN23	Number of planning permissions granted contrary to the advice of Sport England or any other consulted professional body in relation to recreational uses	11, 14, 17, 18, 19	T22	Planning Permissions /WPA Data
IN24	Number of waste planning enforcement cases per annum	20	T25	WPA Data
IN25	Number of substantiated complaints received each year relating to highway safety and traffic impacts of operating waste management facilities	20	T25, T27	WPA Data
IN26	Number of substantiated complaints received each year relating to adverse impacts upon amenity and air quality of waste management facilities	16, 20	T25, T26	WPA Data / Environment Agency Data
IN27	Number of substantiated complaints received relating to the pollution or contamination of soil from operating facilities	16, 20	T20, T25	WPA Data / Environment Agency Data
IN28	Hertfordshire's housing trajectory	1	Monitoring Only	Local Authority Data / Hertfordshire Quality of Life Report
IN29	Employment growth in Hertfordshire	1	Monitoring Only	Local Enterprise Partnership Data / Hertfordshire Quality of Life Report
IN30	Amount of waste generated by household per year	1	T2	WDA Data
IN31	Number of responses received to WPA Annual Survey	20	T28	WPA Data
IN32	Number of permissions granted for non waste uses on safeguarded sites	5	T11	Local Authority Data
IN33	Percentage of Hertfordshire Waste Partnership meetings attended	2	Monitoring Only	WPA Data
IN34	Percentage of Hertfordshire Planning Group Meetings attended	2	Monitoring Only	WPA Data
IN35	Number of planning permissions granted contrary to Local Planning Authority Advice	6, 8, 14, 16, 17, 18, 19	T18, T19, T21, T22, T23, T24	WPA Data

Appendices

Appendix A Key Diagram and Information Maps

Map 1 – Key Diagram

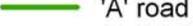
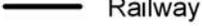
Map 2 – Waste Movements

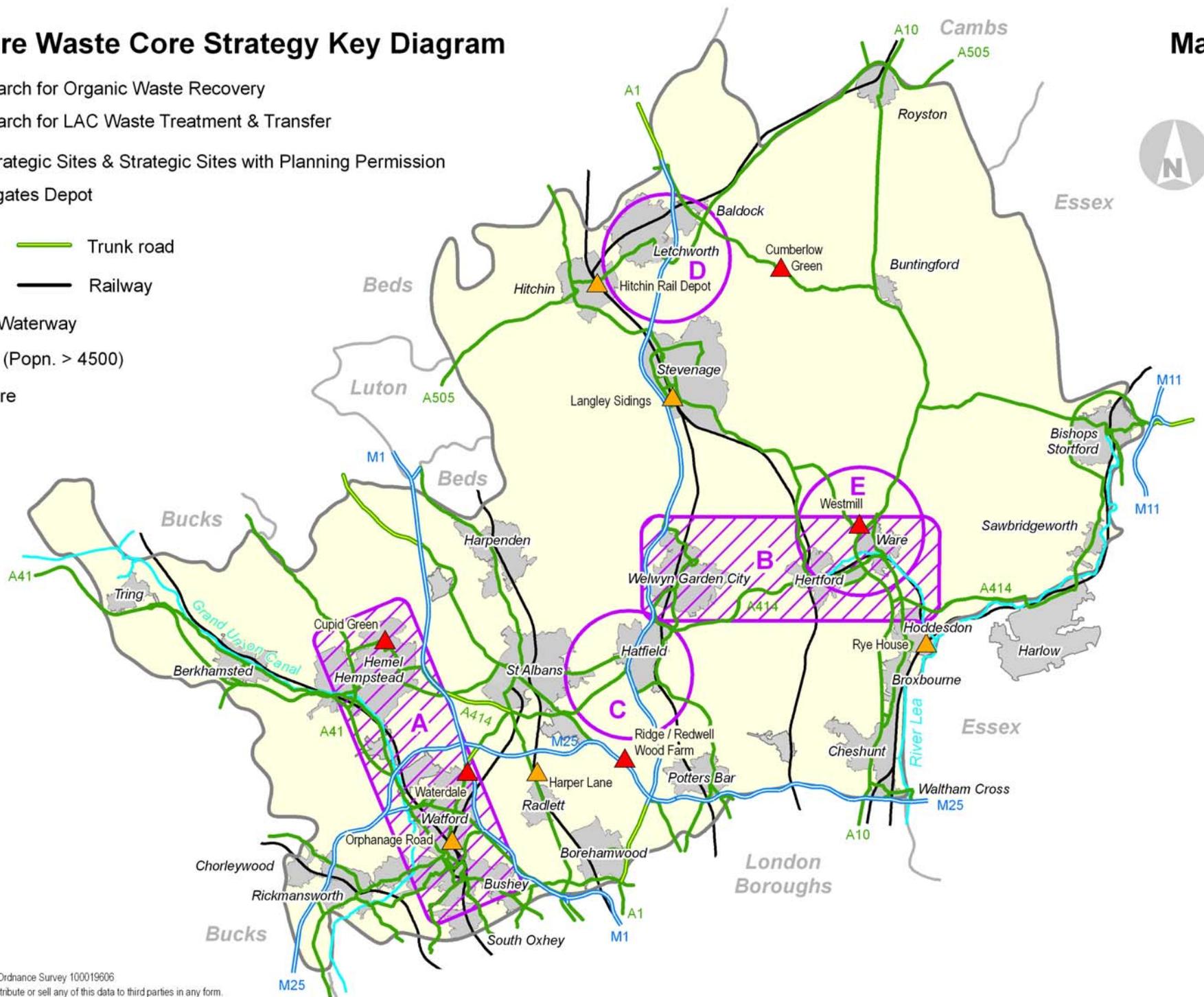
Map 3 – Green Belt and Water Designations

**Map 4 – International, National, Regional and Local
Designations**

Hertfordshire Waste Core Strategy Key Diagram

Map 1

-  Area of Search for Organic Waste Recovery
-  Area of Search for LAC Waste Treatment & Transfer
-  Existing Strategic Sites & Strategic Sites with Planning Permission
-  Rail Aggregates Depot
-  'A' road
-  Trunk road
-  Motorway
-  Railway
-  Navigable Waterway
-  Name Settlement (Popn. > 4500)
-  Hertfordshire

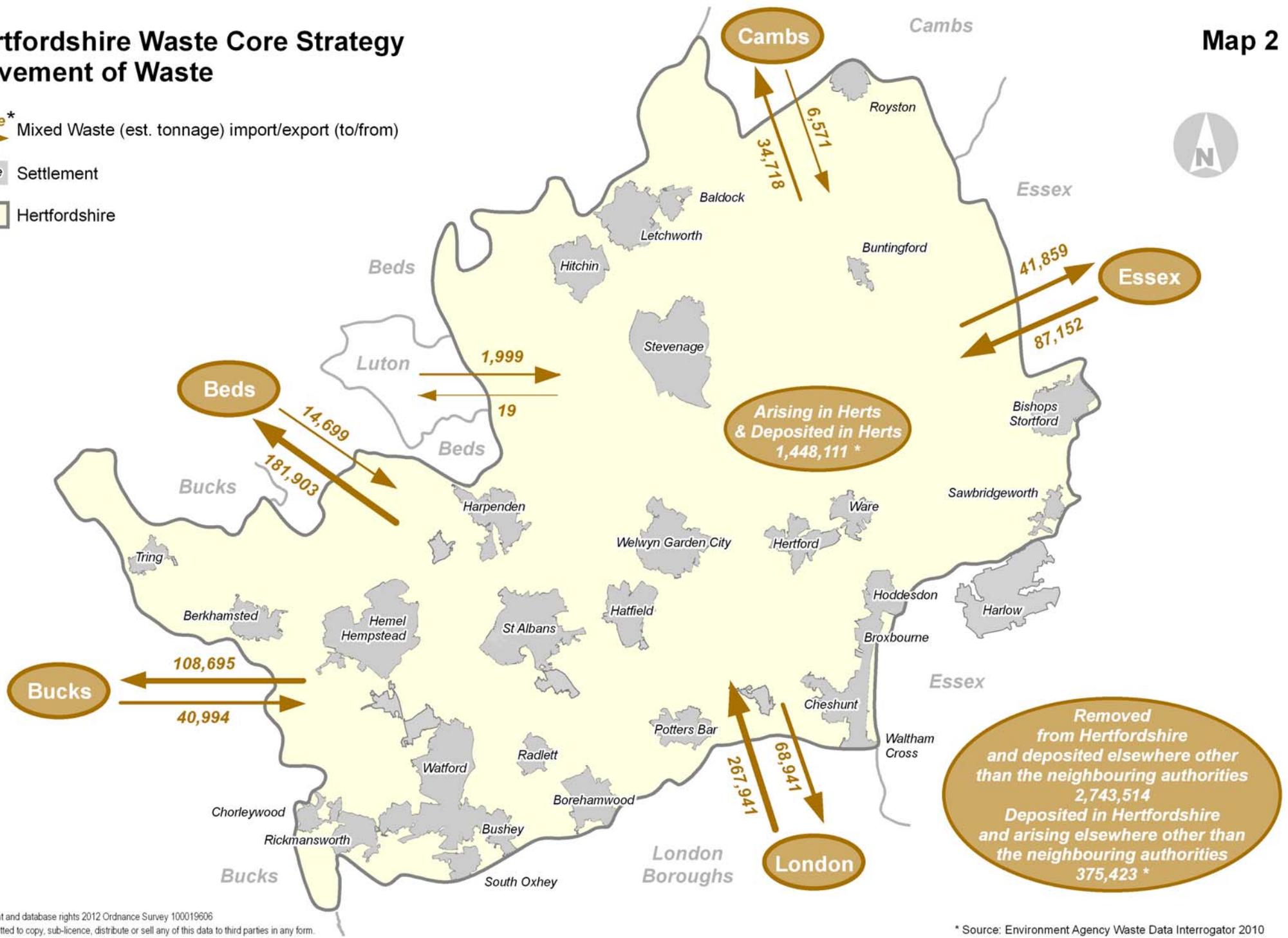


Hertfordshire Waste Core Strategy

Movement of Waste

figure* Mixed Waste (est. tonnage) import/export (to/from)

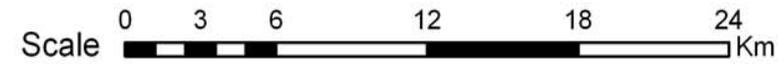
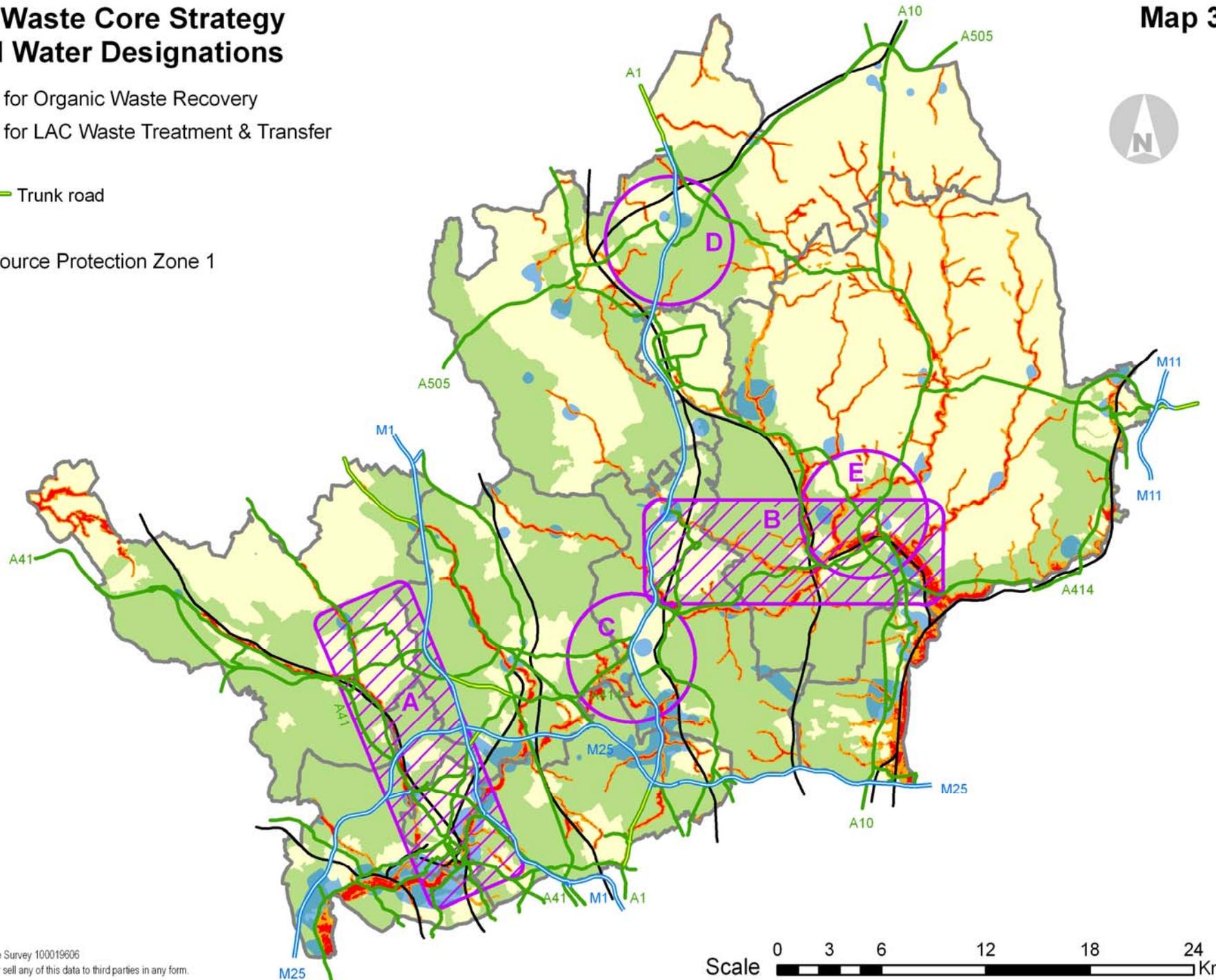
- Name Settlement
- Hertfordshire



Hertfordshire Waste Core Strategy Greenbelt and Water Designations

Map 3

-  Area of Search for Organic Waste Recovery
-  Area of Search for LAC Waste Treatment & Transfer
-  Motorway
-  'A' Road  Trunk road
-  Railway
-  Groundwater Source Protection Zone 1
-  Floodzone3
-  Floodzone2
-  Greenbelt
-  Hertfordshire

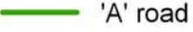
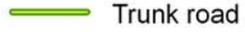
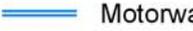


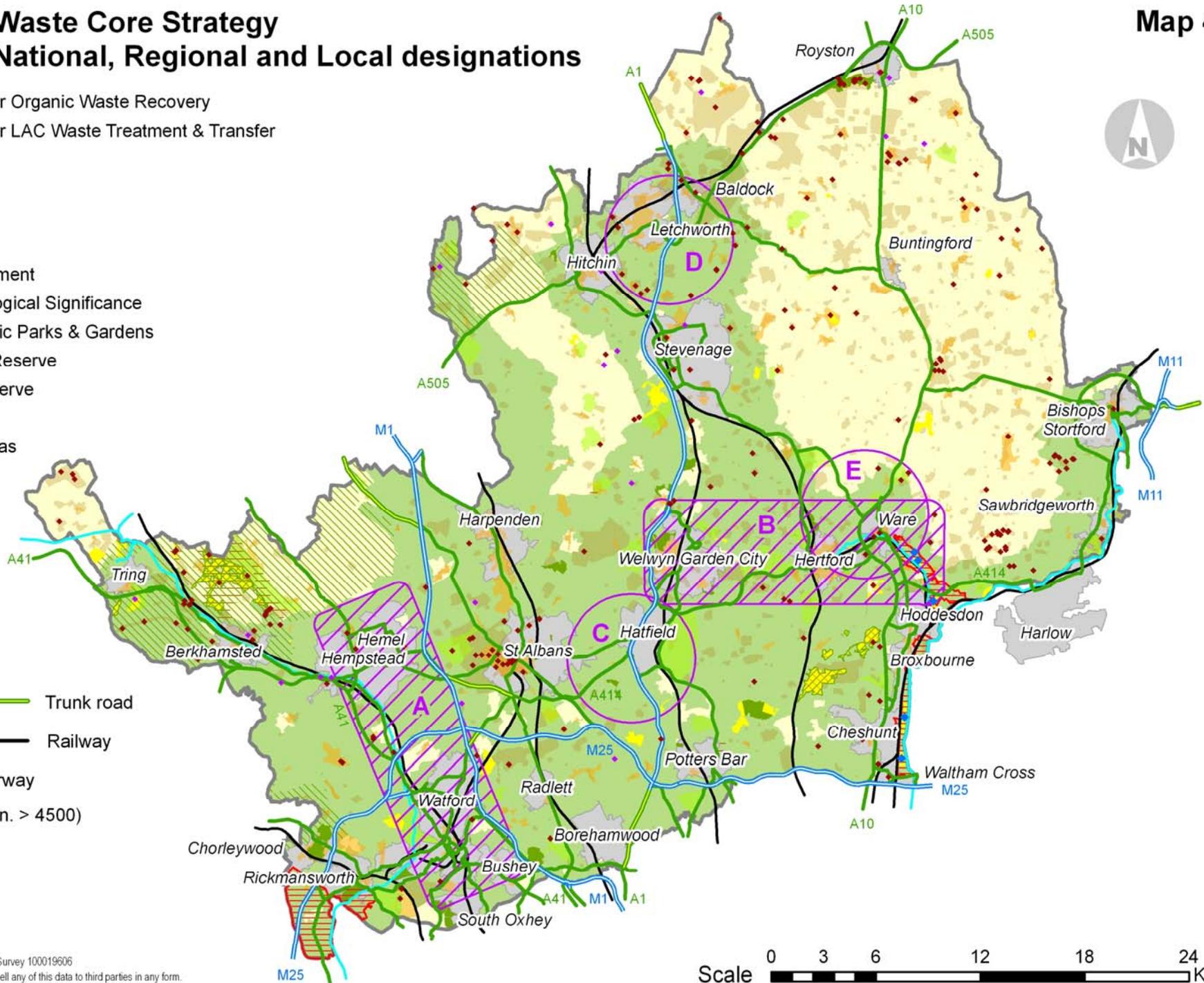
Hertfordshire Waste Core Strategy

International, National, Regional and Local designations

Map 4

-  Area of Search for Organic Waste Recovery
-  Area of Search for LAC Waste Treatment & Transfer
-  Greenbelt
-  SSSI
-  AONB
-  Regional Parks
-  Scheduled Monument
-  Area of Archaeological Significance
-  Registered Historic Parks & Gardens
-  National Nature Reserve
-  Local Nature Reserve
-  SAC
-  Conservation Areas
-  RAMSAR
-  RIGG
-  National Trust

-  'A' road
-  Trunk road
-  Motorway
-  Railway
-  Navigable Waterway
-  Name Settlement (Popn. > 4500)
-  Hertfordshire



Appendix B Roles and responsibilities

- Waste Planning Authorities
Local authorities (usually county councils and unitary authorities) are responsible for all land-use planning matters associated with waste, ensuring an adequate framework in their development plans to enable the waste management industry to establish appropriate facilities for managing amounts of waste over a period of at least 15-years. This should be done through the production of Waste Development Plan Documents. Planning applications will be decided within this framework and Development Plan for the area as a whole (including the District/Borough Local Development Frameworks/Local Plans and Neighbourhood Plans).
- Waste Disposal Authorities
These are usually county councils and responsibilities include the development and implementation of Joint Municipal Waste Management Strategies with district/borough councils. They are responsible for the safe management of Local Authority Collected waste from households and some commercial wastes arising in their areas, directed to waste disposal facilities (either to a partly-owned arms-length Local Authority waste disposal company or directly into the private sector), as specified by the Environmental Protection Act 1990.
- Waste Collection Authorities
Waste Collection Authorities are responsible for the safe and efficient collection of Local authority Collected waste from households and some commercial wastes arising in their areas, and in accordance with approved waste recycling plans. Waste Collection Authorities are usually district/borough or unitary councils, who are responsible for environmental health issues. Local Authority Collected waste only accounts for a small proportion of non-inert waste and an even smaller proportion of the total waste arising in Hertfordshire. All other waste streams are dealt with by the private sector, which collects and arranges the disposal of waste.
- Waste Technical Advisory Bodies
Waste Technical Advisory Bodies are responsible for assembling relevant data across regions and providing advice on options and strategies for dealing with waste needs.
- Environment Agency
The Environment Agency has a complementary role to the county council as they are responsible for pollution control, issuing environmental permits (EP) under the Environmental Permitting Regulations which came into force on 6 April 2008 combining the pollution prevention control and waste management licensing, enforcement of any conditions the permit imposes and as a statutory consultee. Therefore, whilst the county council can grant planning

permission for a waste facility, applications for waste management licences are a separate requirement. However, in considering applications both organisations must consult with each other for comments on proposals prior to determination. It is also responsible for providing up to date information on waste arisings and extent/need for waste management and disposal facilities.

Appendix C Legislation and Planning Policy

European legislation

A number of European Directives influence waste management processes in the UK. The applicable European Directives include:

- Directive on Waste (Waste Framework Directive) 2006/12/EEC
- Directive on Waste (European Waste Framework Directive) 2008/98/EC
- Directive on Hazardous Waste 91/689/EEC
- Directive on Integrated Pollution Prevention and Control 96/61/EC
- Directive on the Landfill of Waste 1999/31/EC
- Directive on the Incineration of Waste 2000/76/EC
- Directive on Packaging and Packaging Waste 94/62/EC
- Directive on Batteries and Accumulators 91/157/EC
- Directive on Waste Electrical and Electronic Equipment 2002/96/EC
- Directive on End of Life Vehicles Directive 2000/53/EC
- Directive on Mining Waste 2006/21/EC
- The Water Framework Directive 2000/60/EC
- Directive concerning the protection of waters against pollution caused by nitrates from agricultural sources (Nitrates Directive) 91/676/EEC
- Air Quality Framework Directive 96/62/EC
- Directive to Promote Electricity from Renewable Energy 2001/77/EC
- Conservation of Natural Habitats and Wild Fauna and Flora Directive (The Habitats Directive) 92/43/EC
- Directive on Conservation of Wild Birds 79/409/EEC

National Legislation

A number of legislative tools and strategies exist within England and or the United Kingdom to control waste, including:

- The Environmental Protection Act 1990
- The Environmental Permitting (England and Wales) Regulations 2010
- The Control of Pollution Act 1974
- The Control of Pollution (Amendment) Act 1989
- The Controlled Waste Regulations 1991
- Localism Act 2011
- The National Planning Policy Framework 2012
- Waste Regulations 2011
- National Waste Strategy 2007

National Planning Policy

The Core Strategy and Development Management Policies Development Plan Document has to take into account national planning policy and other material

policy considerations, all of which are underpinned by the principles of sustainable development.

Local Development Frameworks (LDFs), including Waste Development Frameworks (WDFs), should be in accordance with national planning policy but should not repeat it. It is also a requirement that any policies included in the WDF are soundly based on local evidence to support their inclusion and ensure that emerging policies are locally specific.

PPS10 - Planning for Sustainable Waste Management (and the accompanying good practice Guide) sets out the policy and regulatory context of waste management. Of particular significance is the need to drive waste management practices up the Waste Hierarchy, addressing waste as a resource and looking to disposal as the last option but one which must be adequately catered for. PPS10 also includes a number of other key objectives that regional and local planning bodies should address:

- Provide facilities that reflect the need for communities to deal with their own waste wherever possible;
- Protect Green Belts, but recognise the particular locational needs of some types of waste management facilities and that the wider environmental and economic benefits of sustainable waste management should be recognised as material considerations and given significant weight in planning decisions;
- Help secure the recovery or disposal of waste without endangering human health and without harming the environment;
- Reflect the concerns and interests of communities, the needs of Waste Collection Authorities, Waste Disposal Authorities and businesses; and
- Ensure the layout and design of new development supports sustainable waste management.

The National Waste Strategy 2007

The Government's Waste Strategy 2007 is of particular relevance as it sets the waste management context which planning policy must have regard to.

There have been considerable policy changes since the 2000 Waste Strategy. The landfill tax escalator and the introduction of the Landfill Allowance Trading Scheme (LATS) have created sharp incentives to divert waste from landfill. Additional funding for local authorities, including through the private finance initiative, has led to a major increase in kerbside recycling facilities and new waste treatment facilities. European directives are targeting specific sectors, including vehicles, electrical and electronic equipment and packaging.

However, England's performance on waste still lags behind other European countries. The new Strategy builds on the previous Strategy's aims to

minimise waste and encourage the recycling, composting and recovery of waste in a number of ways:

- New targets for the recycling and composting of household waste (at least 40% by 2010, 45% by 2015 and 50% by 2020) and the recovery of Local Authority Collected waste (53% by 2010, 67% by 2015 and 75% by 2020);
- A greater focus on waste prevention, with a new target to reduce the amount of waste not reused, recycled or composted from over 22.2 million tonnes in 2000 by 29% to 15.8 million tonnes in 2010 with an aspiration to reduce it to 12.2 million tonnes in 2020 – a reduction of 45%;
- Plans to set new targets to reduce the amount of Commercial and Industrial and also Construction, Demolition and Excavation waste going to landfill as a result of waste reduction, reuse and recycling;
- Increasing the landfill tax escalator so that the standard rate of tax will increase by £8 per year from 2008 until at least 2010/2011 to give greater financial incentives to businesses to reduce, reuse and recycle waste (from £24 in 2008 to £48 in 2010).

Regional Spatial Strategy

The Regional Spatial Strategy forms part of the Development Plan for Hertfordshire. The Government has set out their intention to revoke Regional Plans, however until such time as they are formally revoked, the Waste Core Strategy and Development Management Policies document should remain in general conformity with the East of England Plan.

Other Local Policies

Hertfordshire Joint Municipal Waste Management Strategy

The Hertfordshire Joint Municipal Waste Management Strategy (JMWMS) (otherwise known as the Hertfordshire Waste Strategy) has been developed by the Hertfordshire Waste Partnership which includes the county council as Waste Disposal Authority in partnership with the ten District and Borough Councils. The current Strategy was adopted in 2007 and sets out how the Partnership intends to manage Local Authority collected waste to 2020 and beyond.

The strategy recognises that Hertfordshire is still heavily dependent upon landfill for disposal of its waste, the vast majority of which is located outside of Hertfordshire. The majority of Hertfordshire's waste is landfilled at Bletchley in Buckinghamshire, Milton in Cambridgeshire and Westmill Landfill site in Hertfordshire. Additionally, Hertfordshire County Council has contracts to dispose of material at the Edmonton Energy from Waste facility in North London and Lakeside Energy from Waste facility in Berkshire.

The Strategy aims to reduce dependency on landfill and drive the management of municipal waste up the waste hierarchy. Four key factors are identified as the catalyst for action:

- Landfill space is running out
- New government legislation
- Rapidly increasing costs of waste management
- Increasing public expectation

The recommended waste management strategy for Hertfordshire is an integrated approach around a number of key themes:

1. **Waste minimisation** – utilise the WasteAware campaign as a catalyst for waste prevention and reuse. New targets have been introduced to reduce the amount of household waste produced.
2. **Waste recycling and recovery** – maximise opportunities through waste separated kerbside collections. A commitment to exceeding national targets and recycling and/or composting 50% of municipal waste by 2012.
3. **Reduction in residual waste to landfill** – adopt different ways of treating and disposing of waste by using alternative technologies. This will help maintain self sufficiency. The Strategy outlines the amount of local authority collected waste that will need to be processed and disposed of, providing an indication of the future waste management facilities needed. This information has been used to inform the WDF.
4. **Development of Markets** – joint working of all 11 local authorities in Hertfordshire on a market development programme to strengthen existing markets and find new or alternative markets for recycle.

Work has begun on reviewing the JMWMS with a view to complete this work by 2012. This review will look at increasing the recycling and composting target to 60% and determine how the partnership wish to proceed in light of new legislative framework regarding waste.

The WDF aims to facilitate the delivery of these objectives, principally by ensuring there are sufficient facilities for the recovery, recycling, composting and treatment of waste. However, it is recognised that the Waste Strategy only deals with local authority collected waste whilst the Waste Development Framework must deal with other waste streams.

Hertfordshire Municipal Waste Spatial Strategy

The Hertfordshire Municipal Waste Spatial Strategy (revised July 2009) has been prepared by consultants on behalf of the Waste Disposal Authority in response to the consultation on the emerging WDF. The strategy focuses on the spatial element of planning for waste management facilities by the Waste

Disposal Authority in setting out the new and improved waste management facilities that are likely to be required in the county over the period to 2031 and beyond for the sustainable disposal of local authority collected waste.

The report identifies on a series of maps the location of existing waste management facilities utilised by the Waste Disposal Authority and specified drive time isochrones to identify areas of search for new household waste recycling sites, waste transfer stations, organic waste treatment sites, waste bulking/depot facilities and residual waste facilities.

To enable the sustainable disposal of local authority collected waste, the Municipal Waste Spatial Strategy considers that the following new and improved waste management facilities are likely to be required in the county up until 2031:

- New residual waste treatment capacity;
- New waste transfer capacity;
- New organic waste treatment capacity to serve the western and central/eastern parts of the county;
- New or improved Household Waste Recycling Centres; and
- Landfill capacity for residual local authority collected waste.

Local Transport Plan

Hertfordshire's third Local Transport Plan covers the years 2011-2031. This Plan sets the framework for achieving a vision of a better transport system for all. There is particular emphasis on delivering the Government's shared priorities of tackling congestion, delivering accessibility, providing safer roads, improving air quality and improving the quality of life for all of Hertfordshire's residents. Through these themes, and a series of daughter documents (including a Bus Strategy, Rail Strategy, Road Safety Plan, Accessibility Strategy, Rights of Way Improvement Plan) the plan will continue to tackle the complex transport problems that face Hertfordshire.

The Waste Core Strategy is consistent with these objectives by recognising the need to balance economic prosperity with personal health and environmental well being. The Local Transport Plan identifies a number of schemes that are being prioritised for government funding. Suggested road improvements will help make the transfer of waste by road safer and more efficient in these locations. In addition, measures in the Core Strategy to reduce the need to travel and minimise waste-related road transport will help contribute toward the Local Transport Plan's objectives that seek to reduce the impacts on congestion, improve air quality and enhance quality of life of Hertfordshire residents.

Appendix D Saved Policies

Some policies in the Hertfordshire Waste Local Plan 1995-2005 (adopted in January 1999) were ‘saved’ by a Direction of the Secretary of State in September 2007 and have remained part of the Development Plan for Hertfordshire until superseded by new policies in Development Plan Documents in the Local Development Framework.

The table below sets out the Waste Local Plan ‘saved’ policies that are superseded by corresponding new policies within the Core Strategy and Development Management Policies DPD and therefore cease to be part of the Development Plan for Hertfordshire

Saved Hertfordshire WLP Policies	Superseding WCSDM Policies
Strategic Policies	
Waste Policy 1	1, 1A, 7, 9, 11,12,13, 16
Waste Policy 2	1, 1A, 5, 7
Waste Policy 3	2, 12
Waste Policy 4	1, 1A, 4, 5
Waste Policy 5	4, 11
Re-use, Recycling and Composting	
Waste Policy 7	4, 11, 12, 16
Waste Policy 8	12
Waste Policy 9	12
Waste Policy 10	1, 1A, 2, 12
Waste Policy 11	1, 1A, 5
Waste Policy 12	1, 1A
Waste Policy 13	7, 9, 11, 13
Waste Policy 14	7, 11
Waste Policy 15	7, 11
Waste Policy 16	1, 1A, 6
Waste Policy 17	4, 11
Waste Policy 18	5
Waste Reduction Facilities and Energy Recovery	
Waste Policy 19	1A, 3, 11
Waste Policy 20	3
Landfill	
Waste Policy 21	1, 1A, 4, 5, 11, 16
Waste Policy 22	3, 4
Waste Policy 23	1, 1A, 4, 5
Landraising	
Waste Policy 24	4
Difficult and Special Wastes	

Saved Hertfordshire WLP Policies	Superseding WCSDM Policies
Waste Policy 25	11
Clinical Waste	
Waste Policy 26	11
Waste Policy 27	1, 1A, 3, 11
Waste Water	
Waste Policy 28	1, 1A, 7, 11, 13, 16
Scrap Metal	
Waste Policy 29	1, 1A, 7, 11, 16
Waste by Water	
Waste Policy 30	9
Waste Policy 31	9, 11, 13
Chilterns AONB	
Waste Policy 32	16
General Impact on the Wider Landscape	
Waste Policy 33	11, 18, 19
Waste Policy 34	11, 18, 19
Nature Conservation	
Waste Policy 35	11, 17, 18, 19
Heritage Features	
Waste Policy 36	17, 18
Waste Policy 37	17, 18
Site on Agricultural Land	
Waste Policy 38	18, 19
Recreation and Rights of Way	
Waste Policy 39	15, 18
Noise from Waste Management Operations	
Waste Policy 40	11, 12
Prevention of Water Pollution	
Waste Policy 41	4, 11, 14, 16
Waste Policy 42	10, 12, 16
Traffic	
Waste Policy 43	9, 13
Relationship to Other Land Uses	
Waste Policy 44	14

Saved Hertfordshire WLP Policies	Superseding WCSDM Policies
Form and Standard of Restoration Waste Policy 45	4, 11, 16
Restoration Schemes Waste Policy 46	4, 11, 16

Appendix E

Glossary

Area of Archaeological Significance	A defined area where known archaeological remains exist.
Aftercare	The maintenance work needed to ensure that a restored landfill site does not produce environmental problems.
Afteruse	The use to which a landfill site is put following its restoration.
Agricultural waste	A general term used to cover animal excreta, litter, straw waste, carcasses and silage liquors.
Allocated sites (AS)	Sites that have been allocated for use as a waste site as shown in the Waste Site Allocations document.
Anaerobic digestion (AD)	<p>The biological treatment of biodegradable organic waste in the absence of oxygen, utilising microbial activity to break down the waste in a controlled environment. Anaerobic digestion results in the generation of:</p> <ul style="list-style-type: none">• Biogas, which is rich in methane and can be used to generate heat and/or electricity.• Fibre, (or digestate) which is nutrient rich and can potentially be used as a soil conditioner.• Liquor, which can potentially be used as a liquid fertiliser.
Aquifer	<p>A subsurface zone or formation of rock which contains exploitable resources of ground water.</p> <ul style="list-style-type: none">• <i>Confined aquifer</i> – an aquifer in which the water is confined under pressure by overlying and underlying impermeable strata.• <i>Unconfined aquifer</i> – where the upper surface of a saturated zone forms a water table.
Best Value Performance Standards	Waste Strategy 2007 sets national standards for recycling, composting and recovery of municipal wastes.

Biodegradable waste	That component of waste that will decompose over time through the action of bacteria, fungi or algae, with or without oxygen. The EU Landfill Directive itself defines biodegradable waste as ‘any waste that is capable of undergoing anaerobic or aerobic decomposition’ (Article 2(1)). The House of Lords in its report <i>Sustainable Landfill</i> has noted that this definition is inadequate since it omits any reference to time. It therefore recommended that biodegradable waste should be defined in terms of its ability to degraded completely within the aftercare period set out in the Directive ‘for leaving the site in an environmentally benign state’. That period is now given as 30 years (Common Position, EEC, 23 March 1998)
Biological treatment	The process of extracting energy from organic material or turning it into compost. Examples include anaerobic digestion and windrow composting. That component of waste that will decompose over time through the action of bacteria, fungi or algae, with or without oxygen.
Bring banks and bring schemes	Typical examples are bottle, paper and textile banks, often situated in car parks and lay-bys
Clinical waste	More properly known as healthcare waste, it is waste arising from medical, nursing, dental, veterinary, pharmaceutical or similar practices, which may present risks of infection.
Combined heat and power	A highly fuel-efficient technology which produces electricity and heat from a single facility.
Commercial and Industrial Waste (C&I)	Is waste created from premises which are used wholly or mainly for trade (shops and offices), business, sport, recreation or entertainment. Should the premises be owned or controlled by Local Government (or agents) then the waste can also be termed Local Authority Collected/Municipal waste.
Community Strategy	Community strategies outline the local communities’ wishes and priorities, they can be used as a tool to ensure local government and other services meet local needs.
Compost	Organic matter decomposed aerobically and used as fertiliser or soil conditioner
Composting (in vessel)	An aerobic (in the presence of air) biological process in which organic wastes, such as garden and kitchen waste are converted into a stable granular material which can be applied to land to improve soil structure and enrich the nutrient content of the soil

Composting (windrowing)	Shredded waste is placed inside a container or chamber through which air is forced. This method allows good control of temperature, moisture and aeration leading to rapid composting (sometimes as little as two weeks) although it will then need a period of outdoor maturation.
Conservation Areas	Designated areas of special architectural or historic interest, the character or appearance of which is desirable to preserve or enhance.
Construction and Demolition Waste (C&D)	Waste building materials resulting from the construction, remodelling, repair or demolition of buildings, bridges, pavements and other structures. Construction and demolition includes inert waste (e.g. concrete, wood, rubble and masonry), plastics and hazardous materials (e.g. lead, asbestos and liquid paints).
Contamination	Contamination is the addition, or the result of the addition, or presence of a material or materials to, or in, another substance to such a degree as to render it unfit for its intended purpose.
Contaminated land	Any site which may be contaminated to some degree by virtue of its previous usage forms a potential risk to water quality, especially if redevelopment takes place. Potential site developers are advised to contact the Environment Agency at the earliest opportunity to discuss the need for historical information and site investigation to determine the degree of contamination, if any, of both soil and water.
Cover	Material used to cover solid wastes deposited in landfills. Daily cover is used to cover each lift or layer at the end of each working day to prevent odours, windblown litter, insect or rodent infestation, and water ingress. Intermediate cover refers to cover material deposited over wastes at the end of a particular phase of landfilling. Final cover is the layer or layers of material placed on the surface of a landfill during its restoration.
Decomposition	Breakdown of matter into more simple molecules. Decomposition may be caused by physical, chemical or micro-biological action.
Ecology	The study of living organisms in relation to their surroundings.
Emission	A material which is expelled or released to the environment. Usually applied to gaseous or odorous discharges to atmosphere.

Employment Land Area of Search (ELAS)	Employment Land Areas of Search are employment sites that may be compatible with a waste management use. These were identified from District/Borough Local Plans that contain predominantly B2/B8 uses. These sites; however, have little immediate potential for redevelopment or contain sites that may come forward on an ad hoc basis.
Energy from waste	The combustion of waste under controlled conditions in which the heat released is recovered to provide hot water and steam (usually) for electricity generation.
End of Life Vehicle Recovery Facility	A car disposal facility that recovers recyclable used car parts.
Energy recovery	The recovery of useful energy in the form of heat and/or power from burning waste. Generally applied to the combustion of landfill gas and gas produced during anaerobic digestion.
Environment Agency	Established in April 1996, combining the functions of the former local waste regulation authorities, the National Rivers Authority and Her Majesty's Inspectorate of Pollution. Intended to promote a more integrated approach to waste management and consistency in waste regulation. The Agency also conducts national surveys of waste arisings and waste facilities.
Environmental impact	The total effect of any operation on the surrounding environment.
EU Landfill Directive	Adopted by the Member States during 1999, is intended to reduce the environmental effect of the landfilling of waste by introducing uniform standards throughout the European Union. The main objectives are to stimulate recycling and recovery of waste, and to reduce emissions of methane (a powerful greenhouse gas). The Directive requires the UK to reduce the proportion of biodegradable Local Authority Collected waste going to landfill to 35% (by weight) of the 1995 level by 2020. It also introduces the mandatory 'pre-treatment' of putrescible waste and a ban on the co-disposal hazardous and non-hazardous wastes.
FRA (Flood Risk Assessment)	Is an assessment of the risk of flooding. This is normally submitted in support of a planning application, where there is deemed to be a risk of flooding. The requirement for a FRA would relate solely to the size of the proposal (normally over 1ha).

Flood zones	Defined geographical areas with different levels of flooding. Flood zones are defined by the Environment Agency. There is also National Policy on development in flood areas.
Groundwater	Water associated with soil or rocks below the ground surface but is usually taken to mean water in the saturated zone.
Hazardous waste	Waste that meets the criteria in the Hazardous Waste Directive (91/689/EEC) by coming from a specified waste stream (annex I) and having one or more hazardous properties (annex III), and taking into account whether it contains any of some 50 hazardous substances (annex II).
Healthcare waste	Sometimes described as clinical waste, it is waste arising from medical, nursing, dental, veterinary, pharmaceutical or similar practices, which may present risks of infection.
Hertfordshire Joint Municipal Waste Strategy (JMWS) (Hertfordshire Waste Strategy)	Partnership comprising Hertfordshire County Council and the ten District/Borough Councils. The strategy was adopted in 2007 and sets out the intention to manage household waste to 2020 and beyond.
Historic Park & Garden	Sites of national importance, due to their historic nature. Such areas have been defined as such by English Heritage.
Home composting	Compost made at home using a traditional compost heap, a purpose-designed container, or a wormery.
Household Waste Recycling Centres (HWRC)	Sometimes described as Civic Amenity Sites, these are places provided by the county council, where the public can dispose of their own household waste, free of charge. The waste they receive generally consists of bulky items such as beds, cookers and garden waste as well as materials intended for recycling.
Industrial wastes	An industrial waste is defined as waste from any factory within the meaning of the Factories Act 1961 and any premises occupied by a body corporate established by or under any enactment for the purpose of carrying on under national ownership any industry or part of an industry or any undertaking, excluding waste from any mine or quarry". Generally taken to include waste from any industrial undertaking or organisation.
	In the Environmental Protection Act 1990, "industrial waste"

means waste from any of the following premises:

- a) Any factory (within the meaning of the Factories Act 1961);
- b) Any premises used for the purposes of, or in connection with, the provision to the public of transport services by land, water or air;
- c) Any premises used for the purposes of, or in connection with, the supply to the public of gas, water or electricity or the provision of sewerage services; or
- d) Any premises used for the purposes of, or in connection with, the provision to the public of postal or telecommunications services.

A detailed list of waste to be treated as industrial waste is contained in Controlled Waste Regulations 1992. This list includes waste from dredging operations.

Inert wastes	Wastes that do not undergo any significant physical or biological transformations when deposited in a landfill.
Integrated pollution control	A system introduced under Part 1 of the Environmental Protection Act, designed to ensure best available techniques not entailing excessive costs, are used to prevent, or where that is not practicable, to reduce emissions from a range of the potentially most polluting industrial processes, including some waste management facilities. Gradually being replaced with Pollution, Prevention and Control requirements under the EU IPPC Directive.
Inert Waste Recycling Facility	A facility that recycles non – decomposable construction waste that does not undergo any significant transformations when deposited in a landfill.
Integrated waste management	Involves a number of key elements, including: recognising each step in the waste management process as part of a whole; involving all key players in the decision-making process; and utilising a mixture of waste management options within the locally determined sustainable waste management system.
Kerbside collection	Any regular collection of recyclables from premises, including collections from commercial or industrial premises as well as from households. Excludes collection services delivered on demand.
Key diagram	An illustrative diagram showing the broad spatial implication of the strategy

Landfill	The deposit of waste into land in such a way that pollution or harm to the environment is prevented and, through restoration, to provide land which may be used for another purpose.
Landfill Allowance Trading Scheme (LATS)	National Policy, which seeks to divert the disposal of biodegradable waste from Landfill. Local Authorities are allocated a landfill allowance, which decreases over time. Financial penalties are incurred if allowances are exceeded, but it is possible to trade allowances with other local authorities.
Landfill, engineered	A landfill which is to be filled with biodegradable waste where the Waste Regulation Authority require the base and/or the cap to be finished to a specified standard of permeability.
Landfill gas	A by-product from the digestion by anaerobic bacteria of putrescible matter present in waste deposited on landfill sites. The gas is predominantly methane (65%) together with carbon dioxide (35%) and trace concentrations of a range of vapours and gases.
Landfill sites	Areas of land in which waste is deposited. Landfill sites are often located in disused quarries or mines. In areas where there are limited or no ready-made voids, the practice of land-raising is sometimes carried out, where some or all of the waste is deposited above ground, and the landscape is contoured.
Landfill Tax Credit Scheme	Where landfill operators can claim up to 90% tax credit against donations they made to Environmental Bodies, who may, in turn, use the money to carry out activities defined in regulations. These include research and education activities to promote reuse and recycling.
Landraising	The deposit of waste above the original level of land, in such a way that pollution or harm to the environment is prevented.
Leachate	Liquid which seeps through a landfill, and by so doing extracts substances from the deposited waste.
Leachate treatment	A process to reduce the polluting potential of leachate. Such processes can include leachate recirculation, spray irrigation over adjacent grassland and biological and physio-chemical processes.
Licensing	The granting of formal permission for landfill operations at a specified site.

Local Authority Collected Waste (LAC)	Otherwise known as Municipal Waste. Household waste and any other wastes collected by the Waste Collection Authority and/or disposed of by the Waste Disposal Authority or its agents, including some commercial or industrial waste and waste resulting from the clearance of fly-tipped materials and litter and waste taken to Household Waste Recycling Centres/disposal sites by the general public. It may include road and pavement sweepings, gully emptying wastes and some construction and demolition waste arising from local authority activities.
Materials recovery	Synonymous with recycling.
Materials recovery facility (MRF)	A specialised building which separates processes and stores recyclable materials which have been collected either separately or as mixed waste.
Mechanical Biological Treatment	A process which treats residual waste after recycling has taken place. Reusable materials and contaminants are separated from the waste stream by a variety of mechanical processes and the remaining residue is then treated biologically prior to landfilling or used as a refuse derived fuel.
Metal Recycling Facility	A facility that sorts, recovers and recycles scrap metal.
Municipal Waste Spatial Strategy (MWSS)	Prepared by the Waste Disposal Authority in July 2009. The strategy sets out and justifies the Waste Disposal's own service requirements until 2031.
Neighbourhood Plan	Plan developed by communities to shape development in their area. Introduced as a new tier of statutory planning function in the Localism Act, sitting below the District/Borough Council planning level. Envisaged to be led by Town and Parish Councils.
Non- Local Authority Collected Waste	Waste that is not collected by the Waste Collection Authorities for disposal – mainly Commercial and Industrial waste and Construction and Demolition waste.
Previously Developed Land (PDL)	Land which is or was occupied by a permanent structure, including the curtilage of the developed land (although it should not be assumed that the whole of the curtilage should be developed) and any associated fixed surface infrastructure. This excludes: land that is or has been occupied by agricultural or forestry buildings; land that has

	<p>been developed for minerals extraction or waste disposal by landfill purposes where provision for restoration has been made through development control procedures; land in built-up areas such as private residential gardens, parks, recreation grounds and allotments; and land that was previously-developed but where the remains of the permanent structure or fixed surface structure have blended into the landscape in the process of time.</p>
Proximity principle	<p>The proximity principle (as applied to wastes) is that they should be treated or disposed of as near to their place of origin as possible so as to minimise the instance that they are moved.</p>
Ramsar	<p>A statutory designation adopted following the international conference, held in 1971 in Ramsar, Iran, which identifies Wetlands of International Importance especially as wildfowl habitat (Cmmd 6465).</p>
Recyclables	<p>Materials that can be recycled.</p>
Recyclate	<p>Material recovered from the waste stream for recycling.</p>
Recycling	<p>Involves the reprocessing of wastes, either into the same product or a different one. Many non-hazardous industrial wastes such as paper, glass, cardboard, plastics and scrap metals can be recycled. Special wastes such as solvents can also be recycled by specialist companies, or by in-house equipment.</p>
Regional Spatial Strategy (RSS) or East of England Plan	<p>Adopted in May 2008 and prepared by the Regional Assembly, the document forms part of the Development Plan in Hertfordshire. It sets out the region's policies in terms of the amount and location of development and how this will be provided within the region. It covers the period to 2021 although sets a vision, objectives and core strategy for the longer term. Currently there is a draft revision planning up to 2031. Regional Spatial Strategies are due to be formally revoked and will no longer form part of the statutory Development Plan.</p>
Reduction	<p>Reducing the quantity or the hazard of a waste produced from a process. It usually results in reduced raw material and energy demands – thus also reducing costs.</p>
Residual Waste	<p>Waste material or material that remains after the process of waste treatment that is unable to be reused, recycled or composted. These materials end up as residual waste and create a need for other disposal technologies, such as landfill or energy from waste.</p>

Restoration	‘Restoration’ comprises steps to return land to its original or former condition by using sub-soil, top-soil and/or soil making material.
Reuse	Can be practised by the commercial sector with the use of products designed to be used a number of times, such as re-usable packaging. Householders can purchase products that use refillable containers, or reuse plastic bags. The processes contribute to sustainable development and can save raw materials, energy and transport costs.
RoMPP	Review of Mineral Planning Permissions
SAM (Scheduled Ancient Monument)	A nationally important historic building and / or archaeological site that has been given protection against unauthorised change.
Self-sufficiency	Dealing with wastes within the region or country where they arise.
Site Waste Management Plans (SWMP)	A plan which identifies and monitors the responsibility for waste management throughout the construction of developments.
Special waste	A particular class of hazardous wastes, so controlled by regulation that pre-notification of their transport and deposit is required to be given to statutory authorities.
SPZ (Groundwater Source Protection Zone)	These are protected zones that have been defined by the Environment Agency where it provides up to a third of drinking water in England and Wales.
SSSI (Site of Special Scientific Interest)	Is a conservation designation that denotes a protected area, which has been noted for its biological interest.
Sustainable Development	This is development that meets the needs of the present without compromising the ability of future generations to meet their own needs, as defined by the Brundtland Commission 1987. In terms of planning it is about positive growth – making economic, environmental and social progress for this and future generations.
Thermal treatment	Also known as ‘energy from waste’ or ‘waste to energy’. The combustion of waste under controlled conditions in which the heat released is recovered to provide hot water and steam (usually) for electricity generation. This process

	includes any waste treatment technology that involves high temperatures in the processing of waste feedstock.
Toxic wastes	The class of hazardous waste constituents which are harmful to a significant degree.
Transfer station	A depot where waste from local collection vehicles is loaded into larger vehicles, rail wagons or barges for carriage in bulk to a treatment or disposal site.
Waste	The Environment Agency defines waste as: 'Any substance or object that you discard, intend to discard, or are required to discard...and as such is subject to a number of regulatory requirements'.
Waste arisings	The amount of waste generated in a given locality over a given period of time.
Waste Collection Authorities (WCAs)	The ten District and Borough Councils of Hertfordshire are the Waste Collection Authorities (WCAs) for their residents. They have a statutory responsibility to provide a waste collection service to householders and, on request, to local businesses. WCAs also collect bulky items of household waste and carry out street cleansing activities.
Waste disposal	The process of getting rid of unwanted, broken, worn out, contaminated or spoiled materials in an orderly, regulated fashion.
Waste Disposal Authorities (WDAs)	Hertfordshire County Council is the WDA for Hertfordshire. Amongst other functions, it is legally responsible for the safe disposal of household waste collected by the WCAs, and the provision of the Household Waste Sites (HWSs).
Waste Electrical & Electronic Equipment Treatment Facility	A facility that recycles, reuses and repairs electronic equipment.
Waste hierarchy	Suggests that: the most effective environmental solution may often be to reduce the amount of waste generated – reduction; where further reduction is not practicable, products and materials can sometimes be used again, either for the same or different purpose – reuse; failing that, value should be recovered from waste, through recycling, composting or energy recovery from waste, only if none of the above offer an appropriate solution should waste be disposed.

Waste Local Development Framework	A statutory framework document for the county that facilitates the provision of sites for the waste management facilities that will be required to meet Hertfordshire's needs.
Waste Management Facility	A variety of technologies that deal with the treatment, processing, handling and/or transfer, of waste materials. The term is not specific to any one waste stream or facility type but covers a multitude of different types of facilities.
Waste Planning Authorities (WPA)	Local authorities (usually county councils) with responsibility for land-use planning control over waste management. WPAs are also responsible for ensuring an adequate framework in their development plans to enable the waste management industry to establish appropriate facilities for managing amounts of waste over a period of at least 10 years. This should be done through preparation of Waste Local Plans/ Waste Development Plans.

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