

Cheshire West & Chester Council

Local Plan



Waste Need Assessment Update 2015

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Cheshire West
and Chester

Waste need assessment update 2015

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1 Introduction

1.1 The Waste Need Assessment assesses the waste management capacity required for Cheshire West and Chester over the Local Plan period up to 2030 and accords with the requirements of Article 28 of the European Waste Framework Directive⁽ⁱ⁾. The assessment will also be used to inform decisions relating to waste management planning applications. This means:

- assessing the quantity of waste produced in Cheshire West and Chester now and in the future
- assessing the capacity of the existing waste management network
- predicting any shortfall in capacity requiring new waste management facilities.

1.2 Waste planning authorities have the responsibility of assisting with the delivery of European and national waste objectives mainly through the preparation of a Local Plan. The Local Plan must set out what waste developments and facilities are required during the plan period and where they should be located. The Cheshire West and Chester Local Plan (Part One) Strategic Policies sets this out for the borough in policy [ENV 8 'Managing waste'](#).

1.3 Waste planning authorities should ensure that planning policies are kept under review and the evidence base on which those policies are based is kept up to date by regular review and monitoring. Monitoring should identify any new capacity coming forward or the loss of capacity through the closure of existing facilities either where they have come to the end of their operational life or have closed for other reasons. The Waste Need Assessment alongside the Council's Annual Monitoring Report provides the mechanisms through which this monitoring will be achieved.

1.4 Essential to forecasting the need for new or replacement facilities is an assessment of the likely amounts of waste arising in the future, the potential capacity of planning permissions granted and the subsequent building and bringing on-line of new capacity.

1.5 A joint Waste Need Assessment was undertaken for Cheshire West and Chester and Cheshire East councils by Urban Mines in 2010⁽ⁱⁱ⁾ (WNA 2010), the findings of which were disaggregated to the two council areas. Since the 2010 report was published there have been new planning permissions granted for waste management facilities which add to the local capacity and more up to date data published for some waste streams.

1.6 This assessment seeks to update the 2010 and subsequent reports providing data for 2013 relating solely to Cheshire West and Chester. This assessment update:

- provides an assessment of existing and future generation of waste arising in the borough up to 2030
- identifies where waste is currently managed
- identifies the waste management capacity at existing waste management facilities

i Article 28 Waste Framework Directive (2008/98EC)

ii Cheshire East and Cheshire West and Chester Councils - Waste Needs Assessment Report, Urban Mines, May 2011

- identifies future capacity at existing waste management facilities
- identifies the number and type of new waste management facilities that may be required.

This 2015 update provides the most up to date deposit and treatment data for waste facilities in Cheshire West and Chester available from the Environment Agency Waste Data Interrogator for the calendar year 2013. It also sets out the most recent waste arisings figures for the financial year 2013-14. In addition, the update provides information on any new planning permissions together with a review of the status of sites with permissions granted in previous years.

1.7 The following report contains Environment Agency data published under Copyright Environment Agency 2014 © and database right.

2 Background

Data and assumptions

2.1 Data within this report has been taken from the most up to date available sources including:

- Cheshire West and Chester Council
- Environment Agency annual Waste Data Interrogators 2007 to 2013
- Environment Agency annual Hazardous Waste Data Interrogators 2007 to 2013
- DEFRA surveys
- Office for National Statistics
- Regional waste surveys carried out for the former 4NW and the Environment Agency
- Nuclear Decommissioning Authority
- Waste water companies

2.2 The forecasts contained within this report are based upon the findings of the 'Cheshire East and Cheshire West and Chester Council - Waste Needs Assessment Report' (WNA 2010). Whilst circumstances have changed since 2010, these do not significantly affect the assumptions used for the forecasts contained within the original report. This is discussed further in Chapter 5 'Identifying the need for future waste facilities'.

2.3 Waste forecasts are difficult to establish due to the unreliability of certain data. Data relating to local authority collected waste has always been considered the most reliable and can be forecasted with ease. There is however less confidence in data for non local authority waste streams due to the lack of definitive survey data and changes such as landfill tax, aggregates levy, producer responsibility for waste and changes in the landfill regulations that have resulted in step changes in waste arisings and management. For example, in the past economic growth was seen as a direct factor in waste growth but more recent data suggests there has been a decoupling of this link. The factors driving waste arisings and management are not fixed and change over time and therefore the ability to identify consistent and accurate trends for some waste streams proves difficult.

2.4 This report is based upon the best available data at the time of writing and has used assumptions on waste growth and trends at a point in time.

Policy hierarchy

2.5 Waste policy is primarily driven from European and national legislation and regulations in addition to planning policies at a local level which include:

- The EU Waste Framework Directive⁽ⁱⁱⁱ⁾
- The EU Landfill Directive^(iv)

iii Waste Framework Directive (2008/98EC)

iv Landfill Directive 1999/31/EC

- Waste Regulations 2011^(v)
- National Planning Policy for Waste
- National Planning Policy Framework
- Waste Management Plan for England
- Cheshire West and Chester Local Plan (Part One) Strategic Policies
- Retained policies of the Cheshire Replacement Waste Local Plan

Consultation and duty to co-operate

2.6 This assessment forms part of the ongoing monitoring of the Local Plan which extends to the evidence base supporting the policies of the Local Plan (Part One) Strategic Policies. The Council will consult on the findings of this assessment update.

2.7 In fulfilling its ongoing duty to co-operate Chester West and Chester Council has been actively involved in discussions and meetings with authorities where it has been able to identify a known and continuing waste flow in or out of its area. The Council has been and continues to be an active member of cross boundary organisations such as the North West Waste Network (formerly Regional Technical Advisory Board).

v The Waste (England and Wales) Regulations 2011

3 Waste arisings and management

Waste arisings

3.1 In 2011-12 Cheshire West and Chester produced an estimated total of 750,000 tonnes of waste requiring management at facilities for the transfer, recycling, treatment and disposal of waste. In 2012-13 this reduced to approximately 731,000 tonnes and in 2013-14 this reduced again to an estimated total of 683,000 tonnes. This continuing reducing trend may be attributed to waste reduction initiatives.

Table 3.1 Waste arising in Cheshire West and Chester (tonnes)

	2011-12	2012-13	2013-14
Waste arising	750,000	731,000	683,000

3.2 Annual data is published by the Environment Agency on the quantities of waste accepted at licenced or permitted waste management facilities within the borough. Whilst each of these facilities has a permitted operational capacity determined by the planning permission for the site and/or the waste management licence, the actual inputs in any one year may not be representative of that capacity. Exempt sites are not required to report data relating to the amount of waste accepted and therefore data relating to inputs are based upon the maximum permitted under the exemption.

3.3 In 2011, according to information from the Environment Agency Waste Data Interrogator and information held by the Council, there were 32 facilities accepting waste in Cheshire West and Chester, increasing to 41 in 2012 and 40 in 2013. The types of facilities and inputs are summarised in Table 3.2 and further detail is provided in Appendix A 'Current facilities in the plan area'.

Table 3.2 Operational waste facilities and inputs in Cheshire West and Chester 2011 - 2013

	2011		2012		2013	
Facility type	Number of facilities	Site inputs	Number of facilities	Site inputs	Number of facilities	Site inputs
Household waste recycling centres	7	40,370	7	39,450	7	39,262
Materials recycling facility	2	18,750	4	22,836 ⁽¹⁾	4	49,170
Transfer stations	6	100,400	9	87,450	11	95,827
Metal recycling facilities	3	17,400	6	2,100	3	212
Composting sites	4	77,600	5	77,300	5 ⁽²⁾	47,282
Reprocessors	1	122,000	1	196,000	1	197,247
Non hazardous landfill	1	237,750	1	180,200	1	200,810
Hazardous landfill	1	41,400	1	34,900	1	31,549
Hazardous incineration	1	81,900	1	83,615	1	84,721
Hazardous treatment	3	125,500	3	77,533 ⁽³⁾	3	58,193
Private/in-house facilities	3	261,400	3	315,600	3	235,445

1. Previously incorrectly reported as 19,600
2. One site is exempt and therefore data is unavailable
3. Previously incorrectly reported as 257,000

3.4 This list of facilities does not include exempt sites such as those sites operating under an exemption from the Waste Management Licensing Regulations^(vi) or under parts A(2) or B of the IPPC Directive^(vii) permitted by Local Authorities, for which no data is available from the Environment Agency.

vi Waste Management Licensing Regulations 1994

vii European Community (EC) Directive 2008/1/EC on Integrated Pollution Prevention and Control (IPPC)

Local authority collected waste

Waste arisings

3.5 The amount of local authority collected waste has been falling since 2003-04 due to social and economic factors including waste minimisation initiatives, changes in the provision of household waste collection and the general economic climate. The total amount of local authority collected waste has continued to fall in the borough since 2009-10. The year on year fall had exceeded the target set in the Cheshire Consolidated Joint Municipal Waste Management Strategy of reducing the growth to one per cent by 2015. However, the total amount of local authority collected waste increased during 2013-14 by 3.1 per cent from 163,087 tonnes during 2012-13 to 168,172 tonnes. Whilst the total waste figure has increased it remains far below the figure recorded for 2009-10 when the total was 192,109 tonnes.

Table 3.3 Local authority collected waste 2009 - 2014 (tonnes)

Year	Amount collected	Percentage change
2009-10	192,109	-
2010-11	184,446	-4.0%
2011-12	177,424	-3.8%
2012-13	163,087	-8.1%
2013-14	168,172	+3.1%

Table 3.4 Total amount and collection of local authority collected waste 2011 - 2014 (tonnes)

Arisings	2011-12	2012-13	2013-14
Total Local Authority Collected Waste	177,424	163,087	168,172
Amount of total residual waste	85,538	68,234	67,753
Amount deposited at Household Waste Recycling Centres	39,386	38,322	40,436
Street sweeping/cleaning/gully emptying	6,241	7,978	7,549

Overall management

3.6 Table 3.5 provides a summary of local authority collected waste management during the period 2011-12 to 2013-14. Overall recycling and composting rates of local authority collected waste has been steadily rising from 47.9 per cent in 2009-10 to 56.8 per cent in 2013-14. Cheshire West and Chester is therefore already exceeding the national target of 40 per cent by 2020 and the target of 50 per cent by 2020 set in the Cheshire Consolidated Joint Municipal Waste Management Strategy. Recycling rates began to rise in the former district authority areas that now make up Cheshire West and Chester from the late 1990s onwards and they continue to rise year on year. Recycling and composting levels

at the Council's household waste recycling centres have also shown an increase year on year with a total diversion rate from landfill rising from 73 per cent in 2009-10 to 76.4 per cent in 2013-14.

3.7 In 2012 a new household waste collection service was introduced by the Council, with an objective to maximise recycling and composting rates to beyond 50 per cent by 2020, this has already been exceeded in 2013-14 with a recycling and composting rate of 56.8 per cent.

3.8 Residual waste is also collected at the kerbside and at household waste recycling centres and is currently sent to landfill at sites in Cheshire West and Chester and Cheshire East.

Table 3.5 Management of local authority collected waste 2011 - 2014

Management	2011-12		2012-13		2013-14	
	Tonnes	Per cent	Tonnes	Per cent	Tonnes	Per cent
Sent for re-use	1,303	>1%	1,625	1.1%	904	>1%
Sent for recycling	43,056	25.8%	42,825	27.8%	44,968	28.5%
Sent for composting	37,080	22.2%	40,606	26.3%	44,749	28.3%
Sent for recovery ⁽¹⁾	0	-	1,615	1.0%	0	-
Sent for energy recovery (RDF)	0	-	514	>1%	429	>1%
Sent to landfill	85,538	51.2%	67,025	43.5%	66,875	42.3%

1. Fines from street sweeping

Recycling

3.9 Dry recyclables collected in the borough include tin, glass, paper, cardboard, plastic, food and drink cans, Tetra Pak™, food cartons, aluminium foil, batteries, electrical items, mobile phones, textiles and clothes. Dry recyclables and food wastes are collected from households by a kerbside sort box system. They are loaded into specially adapted vehicles and taken to transfer facilities in Chester and Winsford for bulking up before transport to outside of the area for treatment.

3.10 Although the actual locations for recycling are dependent on market influences, indicative locations for where recyclables collected at the kerbside or at household waste recycling centres are sent for ongoing management are set out in Table 3.6.

Table 3.6 Indicative management locations for recyclables 2013-14

Recyclable	Indicative location
Glass	Cheshire West and Chester South Yorkshire
Plastics	Leicestershire Nottinghamshire Wales
Cans	Cheshire East Greater Manchester South Yorkshire
Mixed paper	Flintshire
Cardboard	Greater Manchester Cheshire East
Rubble	Cheshire East
WEEE	Merseyside Nottinghamshire
Textiles and footwear	Flintshire Newport Southampton Swansea West Yorkshire

3.11 It can be seen from Table 3.6 very little of the material collected for recycling remains within Cheshire West and Chester for reprocessing. This is due to the very limited amount of reprocessing capacity located in the borough. The reprocessing facilities available within the borough are shown in Table 3.7.

Table 3.7 Reprocessing facility inputs 2011 - 2013 (tonnes)

Site name	Location	Material	Capacity (EA permit)	2011	2012	2013
Manisty Wharf, Recresco	Manisty Wharf, North Road, Ellesmere Port	Mixed glass	350,000	122,000	195,948	197,247
Sims Recycling Solutions	Bridges Road, Ellesmere Port	WEEE (hazardous)	150,000	42,000	50,155	39,222

Composting

3.12 Green waste is collected at the kerbside and at household waste recycling centres. Green waste is taken to open windrow composting sites and residual waste to landfill sites both of which are within Cheshire West and Chester and Cheshire East. Table 3.7 shows the facilities that are available within the borough for the treatment of such wastes. Material that is collected for composting at the kerbside and at household waste recycling centres in 2013-14 amounted to 44,749 tonnes.

Table 3.8 Existing green waste composting facility inputs 2011 - 2013 (tonnes)

Site name	Location	Capacity (EA permit)	2011	2012	2013
Cotton Abbotts Composting Facility	Cotton Abbotts Farm, Waverton, Chester	25,000	8,450	11,117	9,084
Hapsford Composting Site	Bypass Road, Hapsford, Chester	24,999	23,500	23,636	24,304
Gowy Composting Facility	Ince Lane, Wimbolds Trafford, Chester	20,000	10,300	12,146	9,472
Brookhouse Farm	Brookhouse Farm, Allstock ⁽¹⁾	5,200	No data	No data	No data

1. Exempt site, permitted capacity taken from planning permission

3.13 The Council's household waste collection contract includes the collection of food waste which has increased the composting or recovery rate depending upon which type of facility the food waste is sent to. Although food and kitchen waste is now collected from all households, there are currently no facilities available for the processing and treatment of food and kitchen waste in the borough. This necessitates the transportation of this waste collected from households to a site outside of the borough. However, planning permission has been granted for two in-vessel facilities at Lostock Works, Northwich and Ince Park, Ince. The combined total capacity of these sites is 190,000 tonnes and is in excess of the capacity required for the collection contract. The development of either of these sites would provide sufficient capacity equal to the amount of food and kitchen waste likely to be produced in the borough up to and beyond 2030.

Residual

3.14 In 2011-12 local authority collected residual waste amounted to 85,538 tonnes, 70 per cent of which was sent to landfill at Gowy landfill site in Chester and 30 per cent to Maw Green landfill site in Cheshire East. This pattern has remained relatively unchanged through to 2013-14 when there was a total of 67,753 tonnes of residual waste of which 68 per cent was deposited at Gowy Landfill site and 32 per cent at Maw Green.

3.15 Cheshire West and Chester Council entered into a new Residual Waste Contract with FCC Environment UK in December 2013 for the management of the borough's residual waste. As part of this contract, from 2014-15, waste will be processed at a new facility in Ellesmere Port into Refuse Derived Fuel (RDF) before being sent on to the Ferrybridge Multi Fuel Energy from Waste (EfW) plant in West Yorkshire.

Table 3.9 Residual waste deposits 2011 - 2014

	2011-12	2012-13	2013-14
Total residual waste	85,538	67,025	67,753
Percentage deposited in Gowy landfill	70%	69%	68%
Percentage deposited in Maw Green landfill	30%	31%	32%

Commercial and industrial waste

Arisings

3.16 Cheshire West and Chester produced 346,000 tonnes of commercial and industrial waste in 2009. This figure is taken from a survey of commercial and industrial waste arisings completed for the Environment Agency in 2009^(viii) and remains the most up to date available data on this waste stream.

3.17 Figures for Cheshire West and Chester were based upon the combined authorities in the former Cheshire area, with an apportioned figure based upon the population of Cheshire West and Chester and Cheshire East following local government reorganisation in 2009. The survey indicated that chemical waste made up the largest proportion of industrial waste and mixed non metallic from the retail and wholesale sector the largest in the commercial sector.

3.18 National and regional surveys of commercial and industrial waste were undertaken in 1999, 2003, 2006 and 2009. This has enabled trends to be established showing that industrial waste in the borough has reduced by 45 per cent over the period 1999 to 2009. For commercial waste, whilst the regional trend is for a gradual increase (averaging between 1.5 and 2 percent per annum) the trend in the borough over the period 2006 to 2009 is almost flat.

viii 'North West of England Commercial and Industrial Waste Survey 2009', Urban Mines for the Environment Agency, March 2010

Table 3.10 Commercial and industrial waste arisings 2009 (tonnes)⁽¹⁾

Arisings	Tonnes	Percentage
Commercial	199,000	57.7
Industrial	146,000	42.3
Total	345,000	

1. Data taken from the 'North West of England Commercial and Industrial Waste Survey 2009'

3.19 It is difficult to make any estimate of the likely future growth of commercial and industrial waste in future years due to the influence of various factors including changes in production techniques, the re-use of materials and technological advancements.

Management

3.20 The management of commercial waste often mirrors that of local authority collected waste. Waste is collected from premises and either segregated at source or at transfer stations, with recyclable and residual wastes often being managed at the same facilities as local authority collected waste.

3.21 The situation with industrial waste is more complex, with processing and treatment often being undertaken at source and/or in specialised facilities, particularly for the hazardous waste elements of industrial processes.

Construction demolition and excavation waste

Arisings

3.22 Waste materials generated from construction, demolition and excavation operations, include a wide range of surplus waste construction materials as well as material generated by the demolition of old buildings and soils and subsoils from excavations. Most of these materials are inert, however some can be biodegradable and some, such as asbestos, are classified as hazardous wastes.

3.23 Data relating to the quantities of construction, demolition and excavation waste is, due to its nature, poor. Estimates produced by a survey undertaken at the former regional level in 2006-7^(ix) resulted in figures with low levels of confidence. The amount of this waste deposited at landfill sites (where it is used as daily cover and restoration material) is the only known figure which can be treated with confidence and is published by the Environment Agency on an annual basis. However, this only represents a small element of this waste stream and therefore restricts the assumptions that can be made relating to its management.

ix 'Study to fill evidence gaps for commercial and industrial waste streams in the North West Region of England', Urban Mines, May 2007

3.24 An increasing amount of demolition waste is crushed and used on-site whilst excavation waste is often used on exempt sites for which no Environment Agency permit is required thus no data is recorded in either circumstance. Whilst the new permitting regime has reduced such exemptions and now includes a requirement to record volumes, much of this waste stream will be managed, recycled and disposed of on sites and during activities that whilst requiring planning permission, are exempt from the permitting regime.

3.25 Using the best figures available the indication is that around 200,000 tonnes of construction, demolition and excavation waste is being landfilled each year, which from previous surveys would be approximately 12 per cent of the total amount of waste for this stream.

Management

3.26 As set out above the majority of demolition waste is reused on-site and excavation waste is used on exempt sites for infill or land recovery.

3.27 Considerable quantities of this waste stream are recycled into aggregate. A survey was carried out by the Council in 2011^(x) of facilities for recycling aggregate in the borough. The survey findings showed that whilst reprocessing does take place in the borough there are no fixed facilities available. Processing of the material generated in the borough is therefore done either by mobile plant on-site or exported out of the area for processing.

3.28 Excavation waste can be generated in large quantities in a short timescale from a single development. This is usually deposited or stockpiled at landfill sites where it can be used for on-site purposes such as daily cover or used at former mineral extraction sites when required for restoration purposes.

Hazardous waste

Arisings

3.29 Hazardous waste has historically been seen as the material that poses the greatest risk to human health and the environment. Although treated as a separate waste stream, in reality it is a sub-category of all other waste streams. Clinical waste can also be classed as hazardous, although there is little data on clinical waste arisings available.

3.30 Data on hazardous waste arisings is generally accurate and reported annually through the Environment Agency's Hazardous Waste Data Interrogator. In 2011 hazardous waste arisings for the borough were 45,163 tonnes, in 2012 this fell to 41,007 tonnes before increasing to 77,094 tonnes in 2013 .

x 'Recycled Aggregates Survey 2011 Outcomes report', Cheshire West and Chester Council, March 2013

Management

3.31 The majority of hazardous waste is generated and dealt with at the same site with only a small percentage requiring off-site treatment at dedicated facilities. Within Cheshire West and Chester there are facilities for dealing with a range of hazardous wastes in both solid and liquid forms. They provide an important role in managing this form of waste locally, regionally and nationally. This includes the Ellesmere Port high temperature incinerator and the Minosus deep storage facility as the Winsford Rock Salt Mine. Detail of site inputs is included in Appendix A 'Current facilities in the plan area'.

3.32 Given the specialist nature of these facilities they are recognised as serving a national and regional market importing considerable quantities of waste from outside Cheshire West and Chester. Despite having these large nationally important facilities in the borough less than 10 per cent of hazardous waste produced in the borough is treated or disposed of in the area.

3.33 Most energy recovery facilities or specialist incinerators produce Incinerator Bottom Ash (IBA) or Air Pollution Control (APC) residues which can be hazardous and require pre-treatment before it can be disposed of at a landfill facility. Although there are currently no operating energy recovery facilities in the borough for local authority collected or commercial waste, the Minosus deep storage facility provides disposal capacity for hazardous wastes such as IBA and APC thermal treatment residues.

Agricultural waste

Arisings

3.34 Based on figures from the DEFRA agricultural waste survey, updated to take account of the revised number of farm holdings, farms in Cheshire West and Chester produced 516,000 tonnes of agricultural waste in 2010. This remains the most up to date data available relating to this waste stream.

Management

3.35 The majority of agricultural waste generated in the borough is managed on the farm with very little leaving the site on which it is generated. Waste that does leave the farm is generally landfilled or if hazardous is sent for specialist treatment.

Radioactive waste

Arisings

3.36 Radioactive wastes are a specialised waste stream, they are generally not classified as hazardous waste as they do not come under the EU Waste Framework Directive. Although there are no nuclear power stations in the borough, Urenco at Capenhurst near Chester produces enriched uranium which subsequently produces waste identified in the UK radioactive waste inventory^(xi) (the Inventory). The Inventory is produced on a three yearly basis by the Nuclear Decommissioning Authority the most recent of which is the 2013 Inventory.

xi The UK Radioactive Waste & Materials Inventory (the Inventory), Nuclear Decommissioning Authority

3.37 Capenhurst produces two categories of waste, both intermediate low level radioactive waste and low level radioactive waste. The quantities of both waste types are detailed, together with the proposed disposal route, within the Inventory.

3.38 Predicted total arisings of low level radioactive waste from Capenhurst in the 2010 inventory was 18,000 cubic metres per annum to 2030, with the majority being produced in the period 2020 - 2030. This was a reduction of 56,000 cubic metres following an overestimate in the figure of 74,000 cubic metres quoted in the 2007 Inventory. The 2013 Inventory predicts total lifetime arisings of 12,700 cubic metres packaged volume^(xii).

3.39 Radioactive waste is also produced by hospitals, universities, research establishments and the oil and gas industries, although no figures are available for quantities produced from these sources at present.

Management

3.40 The Environment Agency have confirmed that there are no known facilities or authorisations covering radioactive waste treatment facilities within Cheshire West and Chester. Under the current licencing regime both the producer and disposer of low level radioactive waste have to apply for licences under the Radioactive Substances Act 1993. Currently low level radioactive waste is exported to Clifton Marsh Landfill site in Lancashire.

Sewage sludge

Arisings

3.41 United Utilities operates the borough's main sewage treatment works at the Ellesmere Port Wastewater Treatment Works where inputs in 2011 totalled just under 70,000 reducing to 63,194 tonnes in 2012 and 61,008 tonnes in 2013.

3.42 Sewage sludge is the solid concentration obtained following the purification of sewage. There are 13 operational waste water treatment works operated by the two water companies (United Utilities and Welsh Water) in the borough. Figures are not readily available for capacities at these individual treatment works from the water companies but will be reviewed in future iterations of the waste need assessment.

Management

3.43 Responsibility for managing sewage sludge lies with the two water companies who operate a network of treatment works.

xii Total volume taken up by the waste which includes immobilising medium added to the waste to reduce the hazard and the waste container.

4 Waste movements

4.1 Waste planning authorities are required to plan for sufficient waste management capacity to deal with the waste arising in their areas. However, it must be recognised that the management of waste is sometimes based on complex commercial decisions and does not necessarily respect local authority boundaries. The identification of waste movement is important in identifying if the waste flow is temporary or permanent, long or short term. This section provides an indication of waste movements, which will inevitably vary year on year and therefore provides the opportunity to recognise any established or emerging patterns.

Local authority, commercial and industrial wastes

4.2 Information is available from the Environment Agency waste interrogators^(xiii) on the origin of waste deposits at Environment Agency permitted waste sites in Cheshire West and Chester. General trends in waste movements can be established from reviewing this data although care should be taken due to its nature. For example, no distinction is made between local authority collected waste and commercial and industrial wastes and therefore there isn't the opportunity to analyse the two separate waste streams and the differing circumstances that influence where waste is deposited.

4.3 Waste is imported into and exported out of the borough for specific reasons including:

- proximity of sites to the waste arising, particularly near the boundaries of the borough
- the lack of facilities to deal with the specialist waste type, for example hazardous waste
- the lack of facilities offering the treatment or reprocessing activity required to manage the waste, for example food waste

4.4 In 2011 data suggested that the borough was a net importer of local authority collected waste and commercial and industrial waste for landfill and treatment. This can be attributed to the lack of landfill facilities in Merseyside (Wirral) and the location of nationally significant hazardous waste treatment facilities in Cheshire West and Chester. In 2012 data showed a more even picture of flows into and out of the borough but 2013 again suggests that Cheshire West and Chester is a net importer.

xiii Waste Data Interrogator and Hazardous Waste Interrogator

Table 4.1 Waste movements into and from Cheshire West and Chester 2011 - 2013 (tonnes)

Origin authority area	Waste imports 2011	Waste exports 2011	Waste imports 2012	Waste exports 2012	Waste imports 2013	Waste exports 2013
Cheshire West and Chester	219,730	~	202,950	~	199,829	~
Cheshire East	1,191	25,590	1,493	25,590	604	21,760
Warrington	2,564	31,265	3,863	2,713	21,383	4,283
Halton	3,377	1,901	7,347	6,568	4,457	2,183
Merseyside	71,785	611	39,453	1,593	45,316	3,221
Greater Manchester	195,008	747	217,977	4,516	171,316	16,505
Lancashire	1,938	1,999	936	893	641	2,831
Blackburn with Darwen	173	0	90	0	5	0
Blackpool	25	0	64	0	4	0
Cumbria	890	0	473	0	1,087	0
Wrexham	23,319	18,535	22,461	32,922	17,753	0
Flintshire	62,503	45,016	40,757	31,421	49,795	0
Denbighshire	6,802	244	3,748	0	1,944	0
Rest of UK	96,764	88,178	82,207	101,622	92,398	71,120
Authority area not codeable ⁽¹⁾	451,312	466,153	266,808	591,664	477,416	543,143
Total	1,137,523	685,113	890,271	799,804	1,083,948	665,046

1. For exports, the 'not codeable' area refers to the former Cheshire County Council area and therefore a 50/50 ratio has been applied to Cheshire West and Chester and Cheshire East

Hazardous waste movements

4.5 Although the majority of hazardous waste arising in Cheshire West and Chester is exported, data from the hazardous waste interrogator 2011 shows that the borough was a net importer of hazardous waste. Data for 2012 and 2013 shows a continuation of this trend which is due to the presence of two nationally significant hazardous waste facilities, the Ellesmere Port high temperature incinerator and the Minosus facility at Winsford Rock Salt Mine.

Table 4.2 Hazardous waste movements into and from Cheshire West and Chester 2011 - 2013 (tonnes)

Waste movement	2011	2012	2013
Hazardous waste imported	190,460	168,562	147,510
Hazardous waste arising in borough	42,785	41,007	77,094
Percentage of hazardous waste exported from borough	95%	89%	95%

4.6 Hazardous waste arising in the borough is exported to many sites both across the north west and beyond including sites in Merseyside, Greater Manchester, Lancashire, Yorkshire, East Midlands, West Midlands, Oxfordshire, Essex, North and South Wales. This illustrates the influence of the national market for the treatment of such waste streams.

5 Identifying the need for future waste facilities

Forecast of waste arisings

5.1 In order to ensure that there is adequate provision for the management of waste there is a need to establish how much waste is being produced now and how it is managed, as well as how much is likely to be produced in the period up to 2030.

5.2 The Waste Need Assessment report 2010 developed a number of scenarios for waste growth up to 2030. The preferred scenario used to forecast the borough's waste needs was based upon:

- local authority collected waste targets of 60 per cent recycling and 40 per cent residual treatment in 2014 rising to 70 percent recycling by 2019
- commercial and industrial recycling rates reaching a 90 per cent diversion from landfill by 2020
- construction, demolition and excavation waste recycling rates reaching 75% by 2020
- agricultural waste being increasingly recycled and re-used on farm and no significant increases in the amount landfilled

5.3 The forecast of waste arisings is based upon a growth/decline relationship on both local authority collected waste (via population change) and non-municipal waste (by economic sector). Overall this results in a one per cent growth rate for local authority waste and zero per cent growth rate for commercial and industrial, construction and agricultural wastes collected.

5.4 Annual monitoring will show over time whether these predications reflect the trends emerging in the plan period. Significant deviations from these trends would require a review of the waste policy ([ENV 8 Managing waste](#)) in the Local Plan.

5.5 It should be noted that the preferred scenario included an assumption that the waste Private Finance Initiative (PFI) project would go ahead to manage the residual local authority collected waste for the borough. This was a partnership between Cheshire West and Chester Council, Cheshire East Council and the private sector. However, in 2011 central Government withdrew their support for the project and as a result the two councils took a decision to end the PFI waste project and to proceed separately to procure new residual waste contracts independently.

5.6 Cheshire West and Chester Council entered into a new Residual Waste Contract with FCC Environment UK in December 2013 for the management of the borough's residual waste. As part of this contract, from 2014-15, waste will be processed at a new facility in Ellesmere Port into Refuse Derived Fuel (RDF) before being set on to the Ferrybridge Multi Fuel Energy from Waste (EfW) plant in West Yorkshire. The parameters of the new waste contract are not significantly different to those used in the scenario tested in 2010 and do not materially alter the forecasts in relation to the Local Plan and the overall waste capacity requirements to 2030.

5.7 The forecasts of waste arisings for the borough are set out in Table 5.1 showing the forecasts in relation to predicting the waste capacity requirements that were to be planned for through the Local Plan. They have been specifically designed for planning policy purposes.

Table 5.1 Forecast of waste arisings to 2030⁽¹⁾

Waste stream	2010	2015	2020	2030
Local authority collected	189,910	193,622	197,735	208,800
Commercial and industrial	339,940	325,304	321,323	319,196
Construction, demolition and excavation	216,831	217,323	224,536	239,687
Agriculture	954	954	954	954
Sewage sludge	1,891	1,880	1,945	2,087
Total	747,635	737,203	744,547	768,639

1. Data taken from 'Cheshire East and Cheshire West and Chester Council - Waste Needs Assessment Report', Urban Mines, May 2011

5.8 Hazardous waste is a sub set of the the main waste categories and trends for this waste will reflect those for these waste streams. Radioactive waste forecasts are those set out in the UK Radioactive Waste Inventory (see section 'Radioactive waste').

Current and planned capacity

Current capacity

5.9 Appendix A 'Current facilities in the plan area' details the existing waste management facilities that contribute to existing capacity within the borough. The Council is not aware of any facilities that are likely to close during the next twelve months but this situation will be kept under review in future monitoring reports and iterations of the waste need assessment. Total operational waste management capacity can be broken down into:

- materials transfer and recycling capacity of 442,500 tonnes per annum
- composting capacity of 100,000 tonnes per annum
- hazardous waste thermal treatment capacity of 100,000 tonnes per annum is provided at the nationally significant Ellesmere Port high temperature incinerator
- non hazardous landfill current total void capacity of approximately 1.8 million tonnes at Gowry Landfill
- hazardous landfill total void capacity of 1.6 million cubic metres provided at the nationally significant Minosus facility at the Winsford Rock Salt Mine
- inert landfill capacity provided by quarry restoration schemes and other exempt sites where the deposit of inert waste is designated by the Environment Agency as recovery

Landfill

5.10 The Gowy landfill site has a time limited planning permission which expires in 2016. However, based on current input trends the site is unlikely to have reached its permitted capacity by this date. The landfill site had an estimated remaining capacity based on Environment Agency figures of approximately two million tonnes at the end of 2011 falling to approximately 1.9 million tonnes in 2012 and approximately 1.8 million tonnes at the end of 2013^(xiv).

5.11 An increasing amount of waste deposited at Gowy landfill site is from neighbouring authorities due to falling amounts of residual local authority collected waste from the borough. These imports are predominately residual local authority collected waste and commercial and industrial waste imported from the following areas:

- Merseyside (Wirral, Liverpool, St Helens, and Halton)
- Wrexham
- Flintshire
- Greater Manchester (Wigan)

Table 5.2 Total household, commercial and industrial inputs into Gowy landfill 2009 - 2013 (tonnes)⁽¹⁾

Source	2009	2010	2011	2012	2013
Cheshire West and Chester	82,026	102,662	93,441	71,799	82,429
Imports	69,772	116,830	144,295	108,434	118,381
Total	151,798	219,492	237,736	180,233	200,810

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Planned capacity

5.12 Appendix B 'Facilities planned but not operational' identifies those sites that have been granted planning permission but have not yet become operational. The comparison between existing operational and planned capacity indicates that the planned capacity is significantly higher than the current operational capacity.

5.13 Since 2010 there has been a significant increase in the amount of residual waste treatment capacity that has progressed through the development management processes in Cheshire West and Chester, including planning permission for 1.4 million tonnes per year of new residual waste incineration capacity and 123,500 tonnes per year of EU Waste Incineration Directive compliant biomass capacity as part of a biomass plant with a total of 176,500 tonnes capacity. However, as yet none of the permitted new capacity has moved into the construction phase. The delay in planned capacity moving into the

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construction phase reflects the lack of contracted waste fuels (refuse derived fuel or solid recovered fuel), an overcapacity for the local market, and spare capacity at plants currently under construction in adjoining authority areas.

5.14 The sites with planning permission but not yet operational are capable of accommodating far more waste than is produced within Chester West and Chester. This means that those facilities, if built, are likely to require waste to be imported into the facilities to enable them to work efficiently and viably.

Overview

5.15 Table 5.3 shows the current and planned capacity of waste facilities in the borough as at 2014.

Table 5.3 Existing and planned capacity by waste management type 2014 (tonnes per annum)⁽¹⁾

Waste management method	Existing operational capacity (tonnes per annum) in EA licence	Additional consented capacity but not yet operational (tonnes per annum)
Materials transfer and recycling	442,500	336,000
Composting	100,000	10,500 open windrow 190,000 in vessel
Metal recycling and recovery	61,000 ⁽²⁾	16,000
Recycling (processing)	388,000 ⁽³⁾	650,000
Recycling (inert)	0	75,000
Treatment	0	715,000
Energy from waste	0	1,573,550
Landfill - non hazardous	2,100,000m ³ (total) ⁽⁴⁾	2,300,000m ³ (total)
Landfill - hazardous	1,900,000m ³ ⁽⁵⁾	0
Landfill - inert	0 ⁽⁶⁾	0
Hazardous treatment (including incineration and WEEE)	325,000	100,000

1. Contains Environment Agency information © Environment Agency and database right
2. Includes 16,000 tonnes planning permission capacity now operational
3. Planning permission capacity
4. Planning permission capacity. Remaining capacity at end 2013 approx 1.8 million tonnes
5. Planning permission capacity
6. Some sites exist which are exempt from waste management licencing.

Capacity requirements

5.16 By utilising the predicted future waste arisings and the predicated waste management routes for all wastes to 2030 a total capacity requirement for the borough can be identified. The WNA 2010 calculated this total capacity based upon the preferred scenario. Table 5.4 sets out the capacity requirements up to 2030 for the borough.

Table 5.4 Total capacity requirements to 2030 (tonnes)⁽¹⁾

Waste management type	2010	2015	2020	2030
Recycling (non inert)	295,738	337,712	379,112	387,329
Recycling (inert)	164,772	181,044	203,478	217,208
Composting	4,463	3,879	3,550	3,176
Residual treatment (local authority collected waste)	0	69,898	56,354	59,508
Residual treatment (commercial and industrial waste)	9,880	8,732	8,020	7,198
Energy from waste (commercial and industrial waste)	10,712	10,284	10,368	10,558
Incineration without energy recovery (commercial and industrial waste) ⁽²⁾	4,127	4,050	4,072	4,194
Landfill (non hazardous)	196,564	77,206	51,532	51,887
Landfill (inert)	42,298	26,496	10,950	11,689
Landfill (hazardous)	27	27	27	27
Land recovery	15,796	15,019	14,453	13,441
Sewage sludge	1,891	1,880	1,945	2,087
Total	747,635	737,203	744,547	768,638

1. Taken from 'Cheshire East and Cheshire West and Chester Councils - Waste Needs Assessment Report', Urban Mines, May 2011
2. This method of treatment is not likely to be developed as it does not reflect the waste hierarchy, capacity requirement is more likely to be met by energy from waste facilities

5.17 A capacity gap analysis is undertaken in order to calculate how much of the above capacity will come from existing and new waste management sites. This looks at current waste management facilities and those in the development management process and assesses how many more facilities are required.

5.18 Waste management capacity has been identified by management method and assumed that they will be available throughout the plan period unless information is available which would suggest otherwise. In the case of landfill facilities it is assumed that the total capacity of the facility (voidspace) will be utilised.

5.19 Capacity gap calculations need to be kept under constant review to take account of any increase in waste arisings over and above that predicated or closure of a facility due to its operational life coming to an end or economic circumstances.

5.20 The capacity gaps identified in the WNA 2010 are set out in Table 5.5 along with an updated position on this capacity gap at the end of 2014. The requirements identified in 2010 have not altered significantly since the assessment was produced.

Table 5.5 Capacity gap⁽¹⁾

Waste management type	Approximate capacity gap with existing operational sites	Requirement for new planned facilities ⁽²⁾	Comments
Recycling	93,000 tonnes gap from 2011.	None	Capacity gap for processing facilities until new planned facilities come on stream. Surplus if sites with planning permission become operational. No new facilities have become operational since 2010 although new planning permissions have been granted. Some replacement household waste recycling centre capacity may be required during the plan period as part of upgrades to existing facilities (provision is made in policy ENV 8 Managing waste)
Recycling - inert	166,000 tonnes from 2011 rising to 217,000 at 2030	None	Capacity gap until new planned facilities come on stream. No new facilities have become operational since 2010. Surplus capacity if sites with planning permission become operational.
Composting	None	None	No capacity gap, but all facilities are open windrow. Collection of food/kitchen waste requires different type of facility (in-vessel or anaerobic digestion). There are two sites with permission for this type of facility which are not yet operational.
Residual treatment - local authority collected waste	70,000 tonnes from 2014	None	Gap identified for treatment until new waste disposal contract for the borough becomes operational. A new residual waste contract has now been procured by the Council and will be operational from 2014-15 (see Chapter 3 'Waste arisings and management'). No capacity gap.
Residual treatment - commercial and industrial	None	None	There is an excess of additional consented residual waste treatment capacity in the borough and therefore there is no capacity gap.
Energy from waste - commercial and industrial	15,000 tonnes from 2011	None	Capacity gap until new planned facilities come on stream. No new facilities have become operational since 2010. Surplus capacity if sites with planning permission become operational.
Landfill - non hazardous	None until 2024, 42,000 tonnes from 2025	42,000 tonnes from 2025	No capacity gap until 2025. Existing facility has permission to operate until 2016 and still has void space of approximately 1.8 million tonnes. An additional site with extant planning permission has a permitted capacity of 2.1 million tonnes which is not yet operational.

Waste management type	Approximate capacity gap with existing operational sites	Requirement for new planned facilities ⁽²⁾	Comments
Landfill - inert	42,000 tonnes in 2010 falling to 12,000 tonnes by 2030	42,000 tonnes in 2010 falling to 12,000 tonnes by 2030	Windfall sites are available. Trend is for management on exempt and windfall sites.
Sewage sludge	None	None	N/A

1. Taken from 'Cheshire East and Chester West and Chester Councils - Waste Needs Assessment Report', Urban Mines, May 2011
2. Subject to planned capacity becoming operational

Radioactive wastes

5.21 With the relatively small arisings of this waste in the borough, future management of this stream will rely on existing facilities and it is unlikely that any new bespoke facilities will be required.

Sewage sludge

5.22 Waste policy and waste needs assessments have a supporting role in identifying and ensuring sufficient land is available should any additional infrastructure be required to enable the water utilities to discharge their responsibilities. In the planning process the water companies take into account development proposals and potential applications to factor growth needs into their future asset management plans.

5.23 Whilst the companies have indicated that there may be a need for quality improvements to increase capacity at the existing works, there has been no indication that additional land is required. This review is therefore based upon no additional sites being required to deal with sewage sludge during the plan period to 2030 and therefore management of this waste stream is not considered further.

6 Conclusion

6.1 The waste need assessment update indicates there is sufficient operational and planned waste management capacity to meet the waste needs of the borough throughout the plan period to 2030. This situation needs to be kept under review through annual monitoring mechanisms including the Council's Annual Monitoring Report and future iterations of the waste need assessment.

6.2 The baseline position and forecasting was used to inform policy [ENV 8 Managing waste](#) of the Cheshire West and Chester Local Plan (Part One) Strategic Policies. The Local Plan policy safeguards existing operational and consented capacity in the borough and makes provision for the allocation of household waste recycling centres in Chester, Frodsham and Tattenhall through the Local Plan (Part Two) Land Allocations and Detailed Policies plan.

A Current facilities in the plan area

Household Waste Recycling Centres (HWRC)

Table A.1 Existing household waste recycling centres (HWRC) and inputs 2007 - 2013 (tonnes)⁽¹⁾

Site name	Site Location	Capacity (EA permit)	2007	2008	2009	2010	2011	2012	2013
Chester HWRC	Bumpers Lane, Chester	24,999	10,008	8,247	8,855	8,440	8,520	8,354	8,507
Ellesmere Port HWRC	Bridges Road, Ellesmere Port	24,999	19,910	9,996	10,014	9,744	8,556	7,767	8,111
Frodsham HWRC	Old Station Yard, Frodsham	5,000	19,475	3,137	3,369	3,263	3,169	3,113	3,069
Neston HWRC	Clayhill Industrial Estate, Neston	12,499	2,505	4,023	4,026	4,042	3,948	3,779	3,539
Tattenhall HWRC	Red Lane, Tattenhall	5,000	3,068	2,536	2,468	2,185	2,143	2,052	2,207
Witton HWRC	Old Warrington Lane, Northwich	25,000	10,968	8,370	9,127	8,633	7,975	8,199	7,686
Winsford HWRC	Leslie Road, Winsford	24,999	5,671	5,395	6,137	6,047	6,050	6,175	6,143

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Waste transfer and materials recycling

Table A.2 Existing transfer and material recycling facilities and inputs 2007 - 2013 (tonnes)⁽¹⁾

Site name	Site Location	Operator	Capacity (EA Permit)	2007	2008	2009	2010	2011	2012	2013
Transfer Stations										
A S H Skip Hire	Park Road, Winnington	ASH Skip Hire	25,000	3,217	10,466	8,710	9,514	9,026	8,845	8,831
Ashworth Contractors (A A A Skip Hire Ltd)	Rudheath Industrial Estate, Northwich	AAA Skips	25,000	0	0	0	0	0	643	1,658
Alan's Skip Hire Ltd (ASH Waste Services)	Arterial Road, Dunkirk	Alans Skip Hire	33,000	17,169	24,548	17,635	13,579	799	0	3,019
Northwich Mini Skips	Rudheath Industrial Estate, Northwich	Northwich Mini Skips	5,000	4,568	1,363	1021	996	737	902	875
Bridges Road Transfer Station	Bridges Road, Ellesmere Port	Alchem Ltd	5,000	821	16,073	11,825	9,674	9,548	9,719	10,236
Cheshire Waste Skip Hire	Liverpool Road,Backford	Cheshire Waste Skip Hire	45,000	21,387	47,407	57,290	18,226	17,409	14,930	15,229
Tattenhall Transfer Station	Tattenhall Road, Tattenhall	Tudor Griffiths Ltd	74,999	8,837	11,520	23,819	56,712	62,881	48,555	39,047
Davenham Highways Depot	Davenham Highways Depot	BAM Nuttall	25,000	1,730	4,508	0	1,776	2,496	848	796
Guiliden Sutton Depot	Guiliden Sutton Depot	BAM Nuttall	25,000	6,231	0	4,608	3,937	6,155	3651	3,237

Site name	Site Location	Operator	Capacity (EA Permit)	2007	2008	2009	2010	2011	2012	2013
Materials Recycling Facilities										
Chester Central Depot	Bumpers Lane, Chester	Kier MG Limited	25,000	15,553	8,961	13,621	14,976	14,812	8,867	27,418
Winsford Depot	Road One, Winsford	Kier MG Limited	25,000	N/A	N/A	N/A	N/A	N/A	10,758	19,548
Papi Recycling	Winsford Industrial Estate	Papi Recycling	800 ⁽²⁾	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ellesmere Port Depot	Ellesmere Port Municipal Depot	Chester West and Chester Council	25,000	4,309	0	3,917	3,968	3,948	3,211	2,204

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2. Figure taken from planning permission (12/05309/WAS 28 February 2013)

Metal recycling (including end of life vehicle facilities)

Table A.3 Existing metal recycling facilities and inputs 2007 - 2013 (tonnes)⁽¹⁾

Site name	Site location	Operator	Capacity (EA permit)	2007	2008	2009	2010	2011	2012	2013
A1 Auto	Station Road, Ellesmere Port	A1 Auto Services	2,499	0	0	0	0	0	0	0
Hooton Grange	Hooton Cross Road, Hooton	Norman Robertson	5,000	29,868	46	26	11	15	5	17
K J Bell Scrap Metal	Cedab Road, Ellesmere Port	K Bell	4,999	0	0	4,621	0	0	0	0
Trade Car Parts	Wincham Lane, Wincham	Trade Car Parts	2,500	0	0	925	175	0	0	0
Northwich Metals	Cart Road, Marston, Northwich	A Viles Northwich Metals Limited	4,999	0	0	2,500	2,022	2,137	2,100	75
Roberts Scrapyard	Chapel Street, Northwich	WR Roberts & Sons	25,000	0	0	14,937	14,990	15,250	0	120

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Composting facilities

Table A.4 Existing composting facilities and inputs 2007 - 2013 (tonnes)⁽¹⁾

Site name	Site Location	Operator	Capacity (EA permit)	2007	2008	2009	2010	2011	2012	2013
Cotton Abbots Composting Facility	Cotton Abbots Farm, Waverton, Chester	CE & A Whalley	25,000	15,948	4,909	6,718	7,169	8,452	11,117	9,084
Hapsford Composting Site	Bypass Road, Hapsford	G Whittaker & Sons	24,999	9,963	23,124	21,880	14,857	23,496	23,636	24,304
Brookhouse Farm	Brookhouse Farm, Allostock	CRJ Services Ltd	5,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Gowry Composting Site	Ince Lane, Wimbolds Trafford, Chester	FCC Environment	20,000	5,443	28,879	9,198	9,412	10,296	11,781	9,472
Holme Farm	Holme Farm, Ince	JH Willis & Sons	24,999	N/A	N/A	63,669	66,479	35,385	30,787	4,421

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Other treatment and recovery

Table A.5 Existing recovery and treatment facilities and inputs 2007 - 2013 (tonnes)⁽¹⁾

Site name	Site location	Operator	Capacity (EA permit)	2007	2008	2009	2010	2011	2012	2013
Hazardous treatment										
Cheshire Waste Management Centre	Rosscliffe Road, Ellesmere Port	Tradebe North West Ltd	50,000	0	16,963	18,175	39,823	73,270	16,293	8,319
Electrical Oil Services	Bridges Road, Ellesmere Port	Electrical Oil Services Ltd	24,999	10,769	8,236	8,823	10,238	10,461	11,085	10,652
Ellesmere Port High Temperature Incinerator	Bridges Road, Ellesmere Port	Veolia Environmental Ltd	100,000	78,674	75,283	75,292	75155	818	83,615	84,721
WEEE recycling										
Sims Recycling Solutions	Bridges Road, Ellesmere Port	Sims Group UK Ltd	150,000	0	0	24,449	34,171	41,731	50,155	39,222
Sewage and wastewater treatment										
Ellesmere Port Wastewater Treatment Works	Ring Road, Little Stanney, Chester	United Utilities Water Plc	75,000	31,250	74,041	74,402	106,380	69,465	63,194	61,008
Northwich Waste Water Treatment Works	Winnington Avenue, Winnington, Northwich	United Utilities Water Plc	24,999	0	6,301	7,946	13,734	8,893	6,599	19,157

Site name	Site location	Operator	Capacity (EA permit)	2007	2008	2009	2010	2011	2012	2013
Reprocessing										
Manisty Wharf Recresco	Manisty Wharf, North Road, Ellesmere Port	Recresco Limited	383,000	N/A	N/A	108,563	145,215	121,935	195,948	197,247
Metal recovery										
Edelchemie Lostock Works	Lostock Works, Griffiths Road, Northwich ⁽²⁾	Edelchemie	Not known	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hazardous restricted (private user)										
Brunner Mond Sodium Carbonate Manufacturing Site	Lostock Sodium Carbonate Manufacturing Site, Northwich	Brunner Mond	Hazardous restricted user (private) facility	0	0	0	708	2,251	5,967	758
Thermal treatment										
Whitley Brook Crematorium	Frodsham	Whitley brook Crematorium Ltd	5,000 pet and clinical waste only	115	60	59	48	79	45	0

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2. EA Waste Management Licence Issued 20/1/2014

Landfill

Table A.6 Existing landfill sites and inputs 2007 - 2013 (tonnes)⁽¹⁾

Site name	Site Location	Operator	Capacity (EA permit)	2007	2008	2009	2010	2011	2012	2013
Non hazardous										
Gowy Landfill	Ince Lane, Wimbolds Trafford, Chester	FCC Environment	250,000	133,572	224,708	151,798	219,462	237,736	180,233	200,810
Hazardous merchant										
Minosus (Bostock Landfill)	Minosus, Winsford Rock Salt Mine, Winsford	Minosus Ltd/ Veolia	100,000-permanent storage of hazardous waste APC residues	4,973	20,068	29,424	27,893	41,427	34,894	31,549
Hazardous restricted										
Holford Brinefields	Holford Brinefield, Northwich	Ineos Enterprises Ltd	220,000 in house facility for	35,221	149,736	133,064	131,571	131,449	131,093	74,500
Frodsham Marsh Lagoons	Frodsham Marsh Lagoons, Frodsham	Manchester Ship Canal Company Ltd	1,140,000 in house facility for material dredged from the Manchester Ship Canal only	314,002	430,122	301,426	77,318	127,650	178,534	160,187

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B Facilities planned but not operational

- B.1** Table B.1 shows the annual capacity of waste management facilities within Cheshire West and Chester that have been granted planning permission but have not yet become operational.
- B.2** The effects of the recession and the inability of promoters of waste facilities to secure investment capital where they do not have long term contracts for waste means that many of the facilities with planning permission have not yet commenced construction and a start date cannot be provided.

Table B.1 Sites with planning permission but not yet operational 2014

Site	Application Reference	Proposal	Planning Permission Date	Status	Comments
Kinderton Lodge	4/APP/2004/0631-8/37	Clay extraction with restoration by landfilling of waste; open windrow composting and materials recycling facility		Permission implemented by commencement of development, not yet operational.	
Ince Park	APP/Z0645/A/07/205909 10/01488/FUL	Resource recovery park comprising waste management facility and environmental technologies complex.	August 2009	Conditions discharged, permission implemented by commencement of development, not yet operational.	Variation of conditions application received ('14/02278/S73) pending decision.
Ince Park RDF Plant	GD/BC/001/00265C 01.08.10.04/36C	Energy from waste	August 2009	Conditions discharged, permission implemented by commencement of development, not yet operational.	
Ince Park (Plot 3)	11/04083/OUT	Wood and timber recycling facility	14 October 2013	Permission granted, not yet implemented.	Plot also has permission for WEEE processing facility under permission APP/Z0645/A07/2059609.
Ince Park (Plot 4)	11/04081/WAS	Incinerator Bottom Ash plant	April 2012	Conditions discharged, permission implemented by commencement of	Plot also has permission as timber reprocessing facility under Resource Recovery Park permission

Site	Application Reference	Proposal	Planning Permission Date	Status	Comments
Ince Park (Plot 9)	11/00040/WAS	Biomass plant	10 January 2013	development, not yet operational.	Plot also has permission for bio-ethanol production under Resource Recovery Park permission.
Brunner Mond, Lostock Works	10/00691/DECC	60MW energy from waste and biomass fuelled generating station	2 October 2012	Permission granted, not yet operational.	
Broadthorn Construction, Lostock Works	09/10799/CPO	Waste transfer station	20 December 2011	Permission granted, conditions discharged, not yet operational.	
Bedminster/organic waste management Limited, Lostock Works	4/06/0006/CCC	In-vessel composting plant	25 August 2006	Permission granted, groundworks begun, not yet operational.	
Bedminster, Lostock Works	4/08/0037/FZ5/CCC	Bio-energy plant	21 May 2008	Permission granted, groundworks begun, not yet operational.	
Cheshire West and Chester Council, Calor Gas Site, Ellesmere Port	13/00167/WAS	Waste transfer station	November 2013	Permission granted, conditions discharged, development commenced.	New Council depot including facilities for use in connection with the Council's recycling contract.
FCC Environment UK, Chapterhouse Close, Ellesmere Port	13/04476/WAS	Mechanical biological treatment plant	December 2013	Operational 2014	Facility in connection with Cheshire West and Chester residual waste contract.

Site	Application Reference	Proposal	Planning Permission Date	Status	Comments
Trinity Research, Ellesmere Port	13/01638/FUL	Treatment plant	September 2013	Permission granted, not yet operational.	

B

Facilities planned but not operational

Table B.2 Waste management facilities by type with planning permission but not yet operational 2014

Type of Facility	Permitted capacity per annum	Site Location
Composting		
In-vessel composting	40,000	Ince Park (Plot 5)
In-vessel composting	150,000	Lostock Works, Northwich ⁽¹⁾
Open windrow composting	10,500	Kinderton Lodge, Middlewich
Total composting	200,500	
Materials reception and transfer (recycling)		
Materials recycling facility	150,000	Lostock Works, Northwich
Materials recycling facility	26,000	Kinderton Lodge, Middlewich
Materials recycling facility	60,000	Ince Park (Plot 5) ⁽²⁾
Waste transfer station	100,000	Ince Park (Plot 8)
Total materials reception and transfer	336,000	
Recycling (processing)		
Timber recycling facility	150,000	Ince Park (Plot 3) ⁽³⁾
Wood processing facility	150,000	Ince Park (Plot 4) ⁽⁴⁾
WEEE facility	250,000	Ince Park (Plot 3) ⁽⁵⁾
Plastics village	100,000	Ince Park (Plot 6)
Total recycling (processing)	650,000	
Treatment		
Mechanical biological treatment with anaerobic digestion ⁽⁶⁾	100,000	Ince Park (Plot 5)
Soil treatment plant	100,000	Ince Park (Plot 2)
Incinerator bottom ash facility	250,000	Ince Park (Plot 4) ⁽⁷⁾
Bio-ethanol facility	250,000	Ince Park (Plot 9) ⁽⁸⁾

Type of Facility	Permitted capacity per annum	Site Location
Research and development facility with materials processing	15,000	Ellesmere Port
Total treatment	715,000 ⁽⁹⁾	
Energy recovery		
Energy from waste plant	600,000	Lostock Works Northwich
Energy from waste plant	600,000	Ince Park (Plot 8)
Biomass renewable energy plant ⁽¹⁰⁾	123,550	Ince Park (Plot 9) ⁽¹¹⁾
Bio energy plant	200,000	Lostock Works Northwich
Total energy recovery	1,573,550 ⁽¹²⁾	
Disposal		
Non hazardous landfill	2,300,000	Kinderton Lodge, Middlewich
Total disposal	2,300,000	

1. Site also has permission for bio energy plant
2. Plot also has permission for in-vessel composting
3. Plot also has permission for WEEE recycling
4. Plot also has permission for Incinerator Bottom Ash (IBA) recycling facility
5. Plot also has permission for timber recycling facility
6. as part of Plot 5 Integrated Waste Management facility
7. Plot also has permission for timber recycling
8. Plot also has permission for Biomass renewable energy plant
9. Operational capacity may be less dependant on proposal that come forward on plots at Ince Park
10. Total capacity at this site is 175,000 tonnes to treat 70 percent waste wood and 30 percent virgin timber
11. Plot also has permission for Bio Ethanol production
12. Operational capacity may be less dependent on proposal that comes forward at Lostock Works

C Waste streams

C.1 Waste is defined as 'any substance or object which the holder discards or intends or is required to discard' as set out in Article 3 of the EU Waste Framework Directive^(xv). Materials that are classed as waste are, however, increasingly seen as a potential resource for use in manufacturing or other processes as reflected in the Waste Hierarchy^(xvi).

C.2 There are many types of waste and the definitions used can be confusing. In general, waste comes from the following streams.

Local authority collected waste

C.3 The definition of local authority collected waste was changed in 2010 following consultation with the EU Commission in order that the UK complies with the EU landfill directive^(xvii). It now includes all waste collected and disposed of by local authorities, such as waste from households, household waste recycling centres, public parks and gardens and public bins. This is a slightly broader definition than the waste stream formerly known as municipal waste as it now includes construction and demolition waste deposited at household waste recycling centres.

Commercial and industrial waste

C.4 Commercial and industrial waste is classified as waste from shops, industrial and business premises. It covers a wide range of waste types including food and waste packaging together with waste produced from industrial processes.

C.5 The industrial sector includes:

- food, drink and tobacco businesses
- textiles/wood/paper/publishing business
- power and utilities companies
- chemical/non-metallic minerals manufacturing businesses
- metal manufacturing
- machinery and equipment (other manufacturing) businesses

C.6 The commercial sector include:

- retail and wholesale businesses
- other services
- public sector

xv Article 3 Waste Framework Directive (2008/98EC)

xvi Article 4 Waste Framework Directive 2008/98/EC

xvii EU Landfill Directive 1999/31/EC

Construction, demolition and excavation

C.7 Construction and demolition waste is predominately inert materials such as soils, concrete, bricks and other building products that arise from the construction or demolition of buildings or civil engineering infrastructure projects. It can be segregated or mixed. Excavation waste is generally naturally occurring materials generated as a result of site preparation.

Hazardous waste

C.8 Hazardous waste is waste which has one or more hazardous properties or requires specialist techniques to avoid harm to human health or to the environment either immediately or over an extended period of time. The EU Waste Framework Directive provides an extensive list of these wastes in Annex I - III. Hazardous waste can arise in most waste streams, it also includes clinical waste although very little data is available for this waste stream. Some hazardous waste, for example solvents, can be recycled by specialist facilities which may have a regional or national catchment.

Agricultural waste

C.9 Agricultural waste is produced at agricultural premises, as defined in the Agriculture Act 1947, as a result of agricultural activities. Although large amounts of this waste may be generated, very little is removed from the farm holdings as the majority is either composted or treated to enable it to be used in the land management process on-site.

Low level radioactive waste

C.10 Low level radioactive waste is generally made up of everyday materials that have been contaminated by contact with radioactive liquids, gases or powders. The majority of this waste is produced by the nuclear industry but can also be produced by hospitals, universities, research establishments and the oil and gas industry.

D Waste management types

D.1 In general terms, waste management facilities can be grouped together into transfer, recycling and composting, other recovery (including treatment) and disposal facilities.

Transfer

D.2 Transfer facilities are those facilities involved in the storing, sorting, bulking and onward movement of wastes. Capacity at these facilities may be difficult to assess as some may deal with both transfer and recycling.

Type	Description
Household waste recycling centres (HWRC)	Permanent and mobile facilities for collection and short term storing and bulking up of waste. Mainly used by householders for waste that either does not fit or is in excess of capacity provided by the local authority household collection system.
Waste transfer station	Facility for the transfer and or bulking of small loads into larger loads for onward transfer for reprocessing/treatment or disposal at other facilities. May take mixed waste or could be a specialist facility taking only a single waste type such as clinical or hazardous waste.
Material recovery/recycling facility (MRF)	Facility for the sorting, storing and bulking of recyclable materials collected co-mingled or separately to be sent elsewhere for reuse or reprocessing.
Clinical waste transfer	Specialist facility for handling hospital waste for treatment /disposal elsewhere.

Recycling and composting

D.3 Recycling and composting include facilities that process waste materials into new products or materials examples of which are shown below.

Type	Description
Open-windrow composting	Processing of green and/or agricultural wastes into compost.
In-vessel composting (IVC)	Enclosed facility for processing of green, food and kitchen, and agricultural wastes into compost.
Anaerobic digestion (AD Plant)	Processing in the absence of oxygen of green, food and kitchen, agricultural and industrial wastes to create primarily biogas for energy generation. AD plants also produce a liquid fertiliser and solid digestate which can be further processed into a fertiliser. May also be considered as a recovery plant dependent upon the primary function of the plant.
Recycled/secondary aggregate plant	Processing construction, demolition and excavation wastes to create new products (recycled aggregate) that can be used in the construction industry to replace primary material.

Other recovery (including treatment)

D.4 Recovery includes facilities which recover value (energy and/or heat) from materials after recyclable materials have been segregated from the waste stream.

Types	Description
Mechanical biological treatment (MBT)	Facility that treats residual waste by a variety of mechanical processes to remove recyclable material (second bite recycling) and contaminates from the waste stream and homogenises the remaining waste for biological treatment. The biological treatment typically produces a gas used for energy recovery and a solid residue that may be used as a solid recovered fuel (SRF), compost like material or sent for disposal.
Energy from waste (EfW)	A process that recovers energy from the burning of waste, either in its raw state or following processing into refuse derived fuel (RDF) or solid recovered fuel (SRF). Where both heat and power are recovered and utilised can also be known as combined heat and power (CHP) plant.
Advanced thermal treatment	These treatment facilities use new technologies such as pyrolysis or gasification to process the waste. Pyrolysis is the thermal degradation of a substance in the absence of oxygen, whereas gasification is the thermal degradation with a limited amount of oxygen introduced into the process. Both produce a gas (syngas) which can be burned to produce heat and power, together with an inert residue that can be used in the construction industry or disposed of in inert landfill facilities.
Autoclave	Treatment facility that uses high temperature steam to sterilise waste stream to enable recycling to be undertaken. After removal of the recyclable material the residue may be reused as a fuel or sent for disposal.
Wastewater treatment works	Facility for the treatment of wastewater from domestic and industrial premises including sewage. The process often involves a combination of mechanical segregation and biological treatment which may produce a gas that can be utilised to produce power.

Disposal

D.5 Disposal includes facilities that are at the bottom of the waste hierarchy where waste materials are sent for final disposal. The Environment Agency classify these facilities under the IPPC permitting regime^(xviii) in categories set out below.

Type	Description
Hazardous merchant	Landfill or landraise that can only take hazardous waste, but will accept such waste from waste companies, industrial producers or local authorities.
Hazardous restricted	Restricted to an individual waste type or producer, not available to general market.

xviii European Community (EC) Directive 2008/1/EC on Integrated Pollution Prevention Control (IPPC)

Type	Description
Non hazardous with stable non reactive hazardous waste cell	Normally for asbestos.
Non hazardous	Will take the majority of local authority collected waste and commercial and industrial wastes but can take construction, demolition and excavation wastes.
Non hazardous restricted	As above but restricted to use by operator.
Inert	For construction, demolition and excavation waste. Often used as infill or for restoration of a site either following quarrying activity or as part of redevelopment.

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