Cheshire West & Chester Council

Local Plan

Waste Need Assessment

Update 2013

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Cheshire West and Chester

Waste need assessment update 2013

Appendices

1 Introduction

1.1 The National Planning Policy Framework requires the Local Plan to be based on an adequate, up to date and relevant evidence base. The purpose of a waste needs assessment is to inform the plan making process by setting out the future waste management requirements of the area for the proposed plan period. 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. An evidence base setting out the waste needs of the area is needed to support this.

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 monitoring. This should identify any new capacity coming on stream or the closure of existing facilities as they have come to the end of their operational life or have closed for economic reasons. Essential to forecasting the need for new or replacement facilities is an assessment of the likely amounts of waste that will be generated in the future, the potential capacity of planning permissions granted and the actual building and bringing on line the new capacity.

1.4 A waste needs assessment was undertaken for Cheshire West and Chester Council by Urban Mines in 2010. This study was a joint report with Cheshire East Council. The findings of the report where disaggregated to the two Council areas.

1.5 Since the 2010 report there have been new planning permissions granted for waste facilities which add to the local capacity and more up to date data has been published for some waste streams. New guidance has also been issued by Government on implementing planning requirements of the European Union Waste Framework Directive.

1.6 This assessment is an update of the 2010 report for Cheshire West and Chester, it:

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

2 Background

Data and assumptions

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

- Cheshire West and Chester Council
- Environment Agency annual waste data interrogators 2007 to 2011
- Environment Agency annual hazardous waste data interrogators 2007 to 2011
- 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 in this report are based upon the findings of the waste need assessment 2010. Whilst circumstances have changed since 2010, these do not significantly affect the assumptions used for the forecasts in the original report. This is discussed further in section 5.

2.3 Waste forecasts are difficult to get right because of the unreliability of some of the data. Data on local authority collected waste has always been seen to be the most reliable and more easily forecast. There is less confidence in the 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 recent indicators suggest there has been a decoupling of this direct link. The ability to identify consistent and accurate trends for some waste streams is therefore difficult, as the factors driving waste arisings and management are not fixed.

2.4 This report has been based upon the best available data at the time of writing and has used assumptions on waste growth and trends that reflect current thinking on these matters.

Policy hierarchy

2.5 Waste policy is primarily driven from European and national legislation and regulations which include:

- The EU Waste Framework Directive
- The EU Landfill Directive
- Waste Regulations 2011
- National Planning Policy Framework
- Planning Policy Statement 10 Planning for sustainable waste management
- Waste Strategy for England 2007

2 Background

- Cheshire Replacement Waste Local Plan
- Cheshire Consolidated Joint Municipal Waste Management Strategy

2.6 It is the Government's intention to prepare a national waste management plan which will replace the waste strategy 2007 and Planning Policy Statement 10 in due course.

Consultation and duty to co-operate

2.7 Consultation on the findings of this waste need assessment update will be undertaken as part of the plan making process which extends to the evidence base accompanying consultation documents.

2.8 To fulfil its duty to co-operate Chester West and Chester Council has been actively involved in discussions and meetings with adjacent authorities where it has been able to identify a known and continuing waste flow out of its area. It has been and continues to be an active member of cross boundary organisations such as North West Waste Forum (formerly Regional Technical Advisory Board).

Waste streams

2.9 Waste is legally defined as any substance or object in the categories set out in Annex 1 of the EU waste framework directive which the holder discards, or intends to or is required to discard. Materials that are classed as waste are, however, increasingly seen as a potential resource for use in manufacturing or other processes.

2.10 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

2.11 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. 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 concept that the waste stream formerly known as municipal waste as it now includes construction and demolition waste deposited at household waste recycling centres. This definition is now used in all statistical publications.

Commercial and industrial waste

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

2.13 The industrial sector include:

- food, drink and tobacco businesses
- textiles/wood/paper/publishing business
- power & utilities companies

- chemical/non-metallic minerals manufacturing businesses
- metal manufacturing
- machinery & equipment (other manufacturing) businesses

2.14 The commercial sector include:

- retail & wholesale businesses
- other services
- public sector

Construction, demolition and excavation

2.15 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. It can be segregated or mixed. Excavation waste is generally naturally occurring materials generated as a result of site preparation.

Hazardous waste

2.16 This 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 hazardous waste directive gives an extensive list of these waste. 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

2.17 This is waste that 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.

Low level radioactive waste

2.18 This is waste is generally made up of every day materials that have been 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.

Types of waste management

2.19 In general terms, waste management facilities can be grouped together into:

- transfer
- recycling and composting

- other recovery (including treatment)
- disposal

2.20 The following section outline the types of facility that can come under those headings but should not be seen as definitive as other types/technologies may come forward.

Transfer

2.21 This category covers facilities involved in the storing, sorting, bulking and onward movement of waste. Capacity may be difficult to assess as some facilities may deal with both transfer and recycling. Examples of these type of facilities are shown in table 2.1.

Table 2.1 Types of transfer facilities

Type	Description
Household waste recycling centres	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 household collection system.
Waste transfer station	Facility for the transfer and or bulking up of small loads into larger loads for onward transmission for reprocessing/treatment or disposal. May take mixed waste or could be a specialist facility taking only a single waste type such as hospital (clinical) waste 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

2.22 This category includes facilities that process waste materials into new products or materials. Examples of these type of facilities are shown in table 2.2.

Table 2.2 Types of recycling and composting facilities

Type	Description
Open-windrow composting plant	Processing of green waste and/or agricultural waste into compost.
In-vessel composting plant	Enclosed facility for processing of green waste, food and kitchen waste and agricultural waste into compost.
Anaerobic digestion plant	Processing in the absence of oxygen of green waste, food and kitchen waste, agricultural waste and industrial waste to create primarily biogas for energy generation. Also produces 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 and demolition waste to create new products (recycled aggregate) that can be used in the construction industry to replace virgin material

Other recovery (including treatment)

2.23 This includes facilities that recover value (energy and/or heat) from materials after recyclable materials have been segregated from the waste stream. Such facilities are set out in table 2.3.

Table 2.3 Types of recovery

Types	Description
Mechanical biological treatment plant (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, compost like material or sent for disposal.
Energy from waste plant (EfW)	A process that recovers energy from the burning of waste, either in its raw state or following processing into refuse derived fuel or solid recovered fuel. Where

Types	Description
	both heat and power are recovered and utilised can also be known as combined heat and power plant.
Advanced thermal treatment Plant	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 plant	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

2.24 This 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 PPC permitting regime in categories set out in table 2.4 below.

Table 2.4 Types of disposal facilities

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.
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.

2.25 Since 2004 hazardous landfills have only been able to accept waste classified as hazardous under the hazardous waste directive and non hazardous landfills cannot accept hazardous waste unless it has a separate cell permitted to take some stable non reactive hazardous waste. This will usually be a small part of the overall capacity of the site.

3 Waste arisings and management

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.

3.2 Annual data is published by the Environment Agency on the quantities of waste accepted at licenced or permitted waste management facilities. Whilst each of these facilities has an operational capacity, either determined by the planning permission for the site or the waste management licence, the actual inputs in any one year may not be representative of that capacity. However, where permitted capacity is not known it is assumed that existing waste facilities are operating at or close to an optimum capacity based upon site inputs.

3.3 In 2011, according to information from the Environment Agency waste interrogator and information held by the Council, there were 32 facilities accepting waste in Cheshire West and Chester. The types and numbers of facilities are shown in table 3.1 below.

Table 3.1 Waste facilities and inputs in Cheshire West and Chester 2011[(1)]

Facility type	Number of facilities	Site inputs 2011 (tonnes rounded)
Household waste recycling centres	7	40,370
Materials recycling facility	2	18,750
Transfer stations	6	100,400
Metal recycling facilities	3	17,400
Composting sites	4	77,600
Reprocessors	1	122,000
Non hazardous landfill	1	237,750
Hazardous landfill	1	41,400
Hazardous incineration	1	81,900
Hazardous treatment	3	125,500
Private/in-house facilities	3	261,400

1. Contains Environment Agency information © Environment Agency and database right

3.4 This list of facilities does not include exempt sites such as those sites operating under an exemption from the Waste Management Licencing Regulations or under parts A(2) or B of the IPPC Directive permitted by Local Authorities, for which no data is available from the Environment Agency. Since the end of 2011 an additional material recycling facility in Winsford has become operational which serves the new municipal household waste collection contract.

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 exceeds the target set in the Cheshire Consolidated Joint Municipal Waste Management Strategy of reducing the growth to one percent by 2015. Tables 3.2 and 3.3 provide local authority collected data for total local authority waste collected and type of waste collected during 2011-12.

Table 3.2 Local authority collected waste

Year	Total Tonnes
2011-12	177,424
2010-11	184,446
2009-10	192,109

Table 3.3 Total amount and collection of local authority collected waste 2011-12

Arisings	Tonnes
Total Local Authority Collected Waste	177,424
Amount of total Residual Waste	85,538
Amount deposited at Household Waste Recycling Centre	39,386
Street sweeping/cleaning/gully emptying	6,241

3 Waste arisings and management

Management

3.6 Local authority collected waste in 2011-12 was managed as set out in table 3.4.

Table 3.4 Management of local authority collected waste

Management	Tonnes
Sent for re-use	1,303
Sent for recycling	43,056
Sent for composting	37,080
Sent for recovery	0
Sent to landfill	85,538

3.7 The overall recycling and composting rate of local authority collected waste has been rising, from 47.9 percent in 2009-10 to 48.1 percent in 2010-11 and 49.6 percent in 2011-12. Cheshire West and Chester is therefore already exceeding the national target of 40 percent by 2020 and the target of 50 percent by 2020 set in the Cheshire Consolidated Joint Municipal Waste Management Strategy and 55 percent in the Regional Waste Strategy. Recycling rates have progressively increased over recent years. Recycling rates began to rise in the former district authority areas that now make up Cheshire West and Chester from the late 1990s onwards.

3.8 Recycling and composting levels at the Council's household waste recycling centres have shown an increase year on year with a total diversion rate from landfill rising from 73 percent in 2009-10 to 78 percent in 2011-12. Although the rate has increased overall composting rates have remained static at 14 percent and the increase has been facilitated by a rise in the recycling rate from 59 percent in 2009-10 to 64 percent in 2011-12.

3.9 In 2012 a new household waste collection service was introduced in by the Council, with an objective to maximise recycling and composting rates to beyond the 50 percent rate by 2020. The new contract includes a service improvement target which equates to a kerbside recycling rate of 63 percent in 2013-14.

3.10 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.

Recycling

3.11 Dry recyclables collected in the borough include tin, glass, paper, cardboard, plastic, food and drink cans, tetrapak, food cartons, aluminium foil, batteries, electrical items, mobile phones, textiles and clothes.

3.12 The dry recyclables and food waste are collected from households by a kerbside sort box system. They are loaded into specially adapted vehicles and taken to transfer facilities at Bumpers Lane in Chester and Leslie Road in Winsford for bulking up before transport to outside the area for treatment.

3.13 Although the actual locations for recycling are dependent on the market price, indicative locations for where recyclables collected at the kerbside or at household waste recycling centres are sent for ongoing management are:

- glass - Cheshire West and Chester; Yorkshire
- plastics - Leicestershire; Greater Manchester; Nottinghamshire; Wales
- cans - Warrington; West Midlands; Greater Manchester; Leicestershire; North Wales
- mixed paper - Flintshire
- cardboard - Flintshire; Powys; Greater Manchester
- rubble - Cheshire East
- WEEE - Greater Manchester; Warrington; Wrexham
- textiles and footwear: Flintshire; Swansea; Newport; West Yorkshire; Southampton

3.14 It can be seen from the above that 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 3.5.

Table 3.5 Reprocessing facilities in Cheshire West and Chester

Location	Material	Annual capacity in Environment Agency permit	Input 2011 (tonnes rounded)
Recresco, Ellesmere Port	Mixed glass	350,000	122,000
Sims Recycling Solutions, Ellesmere Port	WEEE (hazardous)	150,000	42,000

Composting

3.15 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 within Cheshire. Table 3.6 below 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 household waste recycling centres in 2011-12 amounted to 37,080 tonnes.

Table 3.6 Existing green waste composting facilities [1]

Location	Annual capacity in Environment Agency permit	Tonnes deposited in 2011 (rounded)	Comments
Cotton Abbots, Chester	25,000	8,450	Deposits from Cheshire West and Chester
Hapsford, Chester	24,999	23,500	Deposits from Cheshire West and Chester
Gowy Composting, Chester	20,000	10,300	Deposits from Wrexham
Brookhouse Farm, Allostock	5,200[2]	No data	Exempt site

1. Contains Environment Agency information © Environment Agency and database right
2. Permitted capacity taken from planning permission

3.16 The recently introduced new household waste collection contract includes the collection of food waste. This will increase 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.

3.17 This necessitates the transportation of this waste collected from households to a site outside the borough. However, planning permission has been given for two in-vessel facilities at Lostock Works, Northwich and at the Ince Marshes Resource Recovery Park. The total capacity of 190,000 tonnes 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 by the borough up to and beyond 2030.

Residual

3.18 In 2011-12 local authority collected residual waste amounted to 85,538 tonnes. This residual waste is landfilled. Approximately 70 percent is deposited at the Gowy landfill site in Chester and the remaining 30 percent exported into Maw Green landfill, Crewe in Cheshire East. Currently no residual waste is sent for recovery.

3.19 This current pattern of management reflects the existing disposal contract the Council has with FCC Environment UK Limited. This was carried over to the new unitary authorities in Cheshire following local government reorganisation in 2009. This contract expires in 2014 and the Council has recently commenced a new tender exercise for a residual waste treatment contract to run from 2014. This follows the cessation of the waste Private Finance Initiative (PFI) project in 2011 by the Council. This was a joint venture with Cheshire East. However, following the withdrawal of PFI credits by Government the two councils decided to end the project and proceed to procure residual waste contracts separately.

Commercial and industrial waste

Arisings

3.20 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. This is the most up to date data for this waste stream.

3.21 Figures for Cheshire West and Chester were based upon the former combined authorities in Cheshire, with an apportioned figure based upon the population of the two areas following reorganisation. The 2009 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.

3.22 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 in the borough industrial waste has reduced by 45 percent over the period between 1999 and 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.

Table 3.7 Commercial and industrial waste 2009[(1)]

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

1. Data taken from the Environment Agency commercial and industrial north west waste survey 2009

3.23 Assumptions for the likely rates of growth for commercial and industrial waste are difficult to make for this waste stream as the correlation with employment numbers may not be consistent over the whole range of sectors and may be influenced by other factors such as changes in production techniques, the ability to re-use materials or significant change with technological advancement.

Management

3.24 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. Recyclates and residual waste often use the same facilities as local authority collected waste.

3.25 The situation with industrial waste is more complex. Processing and treatment is often undertaken at source and also in specialised facilities, particularly for the hazardous elements of industrial processes.

Construction, demolition and excavation waste

Arisings

3.26 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.

3.27 Data on the quantities of construction, demolition and excavation waste has historically been poor and remains so for a number of reasons. Estimates produced in a survey undertaken at the regional level in 2006-7 resulted in figures with low levels of confidence. However, the amount of this waste deposited at landfill sites is a known figure (where it is used as daily cover and restoration material) published by the Environment Agency on an annual basis.

3.28 An increasing amount of demolition waste is crushed and used on the same site and thus fails to be recorded. Excavation waste is often used on exempt sites for which no permit is required (exempt sites). The new permitting regime has reduced such exemptions and now has a requirement to record volumes used and therefore data in this area may improve. However, 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.

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

Management

3.30 As described above the majority of demolition waste is re-used on site and excavation waste is used on exempt sites for infill or land recovery.

3.31 Considerable quantities of this waste stream are recycled into aggregate. A survey was carried out in 2011 by the Council 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 at the demolition site or exported out of the area for processing.

3.32 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

3.33 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 the other waste streams.

3.34 Data on hazardous waste arisings is generally accurate and reported annually through the Environment Agency's Hazardous Waste Interrogator. In 2011 hazardous waste arisings for the borough were 45,163 tonnes, compared to 25,423 tonnes in 2008.

3.35 Clinical waste can also be classed as hazardous, although there is little data on clinical waste arisings available.

Management

3.36 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.

3.37 Given the specialist nature of these facilities they are recognised to serve a national and regional market and they import considerable quantities of waste from outside Cheshire West and Chester. Despite having these large nationally important facilities in the borough less than 10 percent of hazardous waste produced in the borough is treated or disposed of in the area.

3.38 Most energy recovery facilities or specialist incinerators produce fly ash or Air Pollution Control (APC) residues which can be hazardous and requires pre-treatment before it can be disposed of at a landfill facility. Although there are currently has 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 incinerator bottom ash and APC thermal treatment residues. In 2011the Minosus facility handled 41,731 tonnes from thermal treatment facilities situated in areas as far away as Hampshire and Sussex where no such facility exists locally.

Agricultural wastes

Arisings

3.39 Based on the 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.

Management

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

Radioactive wastes

Arisings

3.41 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, there is a nuclear site at Capenhurst near Chester which produces waste identified in the UK radioactive waste inventory. The inventory is produced on a three yearly basis by the Nuclear Decommissioning Authority.

3.42 This site 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 waste inventory.

3.43 Predicted total waste arisings in the 2010 inventory of low level radioactive waste from Capenhurst is 18,000 cubic metres per annum to 2030, with the majority being produced in the period 2020-2030. This is a reduction of 56,000 cubic metres following an overestimate in the figure of 74,000 cubic metres quoted in the 2007 inventory.

3.44 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.

Management

3.45 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.

3.46 Currently low level radioactive waste is exported to a landfill site in Lancashire. The current management methods will need to be kept under review as alternative facilities may be required from 2015 onwards when the planning permission expires although it is understood that capacity will remain after this date.

Sewage sludge

Arisings

3.47 Inputs into the main sewage treatment works in the borough at Ellesmere Port totalled just under 70,000 tonnes as reported in the Environment Agency waste interrogator 2011.

3.48 Sewage Sludge is the solid concentration obtained following the purification of sewage at 13 operational waste water treatment works operated by the two water companies. Figures are not readily available for capacities at individual treatment works from the water companies.

Management

3.49 Responsibility for managing sewage sludge lies with the two water companies, United Utilities and Welsh Water, who operate a network of treatment works.

4 Waste movements

4.1 Recent guidance requires waste planning authorities 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 based on sometimes complex commercial decisions and does not respect local authority boundaries.

4.2 The identification of waste movement is important in identifying if the waste flow is temporary or permanent, long or short term.

4.3 This section is provided to show an indication of waste movements. These movements will vary year on year.

Local authority, commercial and industrial wastes

4.4 Information is available from the Environment Agency waste interrogators on the origin of waste deposits at Environment Agency permitted waste sites. However, given the nature of the data care has to be taken in analysing the data and how it is used. For example the data makes no distinction between local authority collected waste and commercial and industrial waste and are reported as one category. Also, in many cases the waste origin is unclassified and assumptions are made by the Environment Agency on its origin or this is reported as unclassified. However from reviewing waste movements the general trends and patterns can be established for waste movements in and out of the borough.

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

- proximity of the waste sites to the waste arising, particularly near the boundaries of the borough
- no facilities available in the borough to deal with the specialist waste type, for example hazardous waste
- no facilities available in the borough that offer the treatment or reprocessing activity required to manage the waste

4.6 The data suggests that the borough is 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.

Table 4.1 Waste movement to and from Cheshire West and Chester 2011[1]

Origin authority area	Waste deposited at sites in Cheshire West and Cheshire (tonnes)	Waste from borough deposited at sites outside of Cheshire West and Chester (tonnes)
Cheshire West and Chester	219,730	~
Cheshire East	1,191	30,464
Warrington	2,564	31,265
Halton	3,377	1,901
Merseyside	71,785	611
Greater Manchester	195,008	747
Lancashire	1,938	1,999
Blackburn with Darwen	173	0
Blackpool	25	0
Cumbria	890	0
Wrexham	23,319	18,535
Flintshire	62,503	45,016
Denbighshire	6,802	244
Rest of UK	96,764	88,178
Authority area not codeable	451,312	466,153 [i]
Total	**1,137,523**	**685,113**

1. Contains Environment Agency information © Environment Agency and database right

i The total not codeable figure was for Cheshire as a whole. The total has been spilt with 50% attributed to Cheshire East and 50% to Cheshire West and Chester

4 Waste movements

Hazardous waste movements

4.7 Information from the hazardous waste interrogator 2011 shows that Cheshire West and Chester is a net importer of hazardous waste. This is due to the two nationally significant hazardous waste facilities in the borough. This includes the Ellesmere Port high temperature incinerator and the Minosus facility at the rock salt mine in Winsford.

4.8 In 2011 190,460 tonnes of hazardous waste was imported into the borough and 45,163 tonnes of hazardous waste was produced in the borough of which 42,785 (95 percent) was exported for treatment.

4.9 Hazardous waste 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 Wales and South Wales. This demonstrates the national market place for the treatment of such wastes.

5 Identifying the need for future waste facilities

Forecast of waste arisings

5.1 In order to ensure that there are adequate provisions 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 percent recycling and 40 percent residual treatment in 2014 rising to 70 percent recycling by 2019
- commercial and industrial recycling rates reaching a 90 percent 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 percent growth rate for local authority collection waste and zero percent growth rate for commercial and industrial, construction and agricultural wastes.

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 policies in the Local Plan.

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

5.6 The forecasts of waste arisings for the borough are shown in table 5.1. These are the forecasts in relation to predicting the waste capacity requirements 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. Taken from the Cheshire West and Chester waste need assessment report 2010

5.7 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 3).

Current capacity

5.8 Appendix A of this report details the existing waste management facilities that contribute to the existing capacity. 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. Total operational waste management capacity can be broken down into:

- materials transfer and recycling capacity of of 450,000 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 2.1 million cubic metres (equivalent to 250,000 tonnes per annum) is provided at the Gowy landfill
- hazardous landfill total void capacity of 1.9 million cubic metres provided at the nationally significant Minosus facility at the Winsford Rock Salt Mine (the annual input is restricted to 100,000 tonnes per annum due to operational constraints)
- 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

5.9 The Gowy landfill site has a time limited planning permission which expires in 2016. However, based on current trends in inputs the site is unlikely to be full by this date. The landfill site has an estimated remaining capacity based on Environment Agency figures of approximately two million tonnes at the end of 2011. With residual local authority collected waste deposited at Gowy landfill falling, an increasing amount of waste into the site comes from neighbouring authority areas. These imports are predominately residual local authority collected waste and commercial and industrial waste from the following areas:

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

5.10 If the site was solely catering for waste from the borough it would have a life of 28 years. However, if inputs were to remain constant it would be 8.4 years.

5.11 Nationally landfill rates have been falling, with increased recycling and some new treatment capacity coming on stream which has diverted waste away from landfill. However, in Cheshire West and Chester (as in the majority of the former north west region), although recycling and composting rates have been climbing steadily, no new treatment capacity has yet come on stream. As a result landfill rates in the north west have not followed the trend and in 2011 continue to rise, despite the number of landfill sites falling.

Table 5.2 Total household, commercial and industrial inputs into Gowy landfill

	2009	2010	2011
Cheshire West and Chester	82,026	102,662	93,441
Imports	69,772	116,830	144,295
Total	**151,798**	**219,492**	**237,736**

5 Identifying the need for future waste facilities

Planned capacity

5.12 Appendix B identifies those sites that have been granted planning permission but have not yet become operational.

5.13 The comparison between existing operational and planned capacity indicates that the planned capacity is significantly higher than the operational capacity.

5.14 Since the previous waste needs assessment in 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 capacity. However, as yet non of the permitted new capacity has moved into the construction phase. The delay in planned capacity moving into the 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.

5.15 The sites currently with planning permission but not yet implemented 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.

Overview

5.16 Table 5.3 shows the current and planned capacity of waste facilities in the borough.

Table 5.3 Existing and planned capacity by waste management type 2012[1]

Waste management method	Existing operational capacity (tonnes per annum) in EA licence[2]	Additional consented capacity but not yet operational (tonnes per annum)
Materials transfer and recycling	442,500	336,800
Composting	100,000	10,500 open windrow 190,000 in vessel
Metal recycling and recovery	45,000	16,000
Recycling (processing)	388,000[3]	150,000
Recycling (inert)	0	75,000
Treatment	0	650,000[4]
Energy from waste	0	1,773,550
Landfill - non hazardous	2,100,000m^3 (total)[5]	2,300,000m^3 (total)
Landfill - hazardous	1,900,000m^3 [6]	0
Landfill - inert	0[7]	0
Hazardous treatment (including incineration and WEEE)	325,000	100,000

1. Contains Environment Agency information © Environment Agency and database right
2. Licenced capacity is generally higher than actual site throughput
3. Planning permission capacity
4. Includes 200,000 tonnes capacity subject to s106 agreement. Planning permission has not been issued
5. Planning permission capacity
6. Planning permission capacity
7. Some sites exist which are exempt from waste management licencing. In Cheshire West and Chester these tend to be short term windfall developments.

Capacity requirements

5.17 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 waste need assessment 2010 calculated this total capacity based upon the preferred scenario as discussed earlier.

5.18 The capacity requirements are set out in table 5.4 up to 2030.

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 West and Chester waste need assessment report 2010
2. This method of treatment is not likely to be developed as it does not respect the waste hierarchy. Capacity requirement more likely to be met by energy from waste facilities

5.19 A capacity gap analysis is undertaken in order to work out 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 calculates how many more facilities are required to be planned for.

5.20 Waste management capacity has been identified by management method and assumed that they will be available throughout the plan period unless information is known that this will not be the case. In the case of landfill facilities it is assumed that the total capacity of the facility (voidspace) will be utilised.

5.21 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 there has been the closure of a facility due to its operational life coming to an end or economic circumstances.

5.22 The capacity gaps identified in the waste needs assessment in 2010 are shown in table 5.5 along with an updated position on this capacity gap at the end of 2012. The requirements identified in 2010 have not altered significantly since the study was produced. The key issue is that sites predicated to come on stream in 2011 were still not operational at the end of 2012.

Table 5.5 Capacity gap[(1)]

Waste management type	Capacity gap with existing operational sites[(2)]	Requirement for new planned facilities [(3)]	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. Some replacement household waste recycling centre capacity may be required during plan period as part of upgrade to existing facilities.
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). Two sites with permission for this type of facility but not operational.

Waste management type	Capacity gap with existing operational sites[2]	Requirement for new planned facilities [3]	Comments
Residual treatment - local authority collected waste	70,000 tonnes from 2014	None	Gap identified for treatment until new waste disposal contract for the borough is in place (2014). However, the waste PFI project, which would have delivered the facility to fill the capacity gap from 2014 was abandoned in 2011. Approval for the facility was given by the Council subject to section 106 agreement at strategic planning committee but this permission has not been issued. A new residual waste contract is currently being procured by the Council. However, there is an excess of additional consented residual waste treatment capacity in the borough.
Residual treatment - commercial and industrial	None	None	There is an excess of additional consented residual waste treatment capacity in the borough.
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 capacity until 2016 and there is a site with extant planning permission for 2.1 million tonnes capacity which is not yet operational.
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	

1. Data taken fro Cheshire West and Chester waste need assessment report 2010
2. Figures are approximate
3. Subject to planned capacity becoming operational

Radioactive wastes

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

Sewage sludge

5.24 Waste policy and the waste needs assessment has a supporting role to identify and ensure that 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 design growth needs into their future asset management plans.

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

6 Conclusion

Conclusion

6.1 This update of the waste need assessment indicates that there is sufficient operational and planned waste management capacity to meet the needs of the borough to 2030. This situation needs to be kept under review through annual monitoring.

6.2 The baseline position and forecasting has been used to inform the policy in the publication draft Local Plan. The review suggests that the waste allocations in the current adopted Cheshire Replacement Waste Local Plan should be reviewed in line with guidance in Planning Policy Statement 10 and the Council should consider safeguarding existing operational and consented capacity.

6.3 The policy on waste in the Local Plan will need to set out the strategy for meeting the waste management needs of the borough based upon the findings of this report. It must ensure there are enough sites made available to deliver the waste management in the borough to 2030.

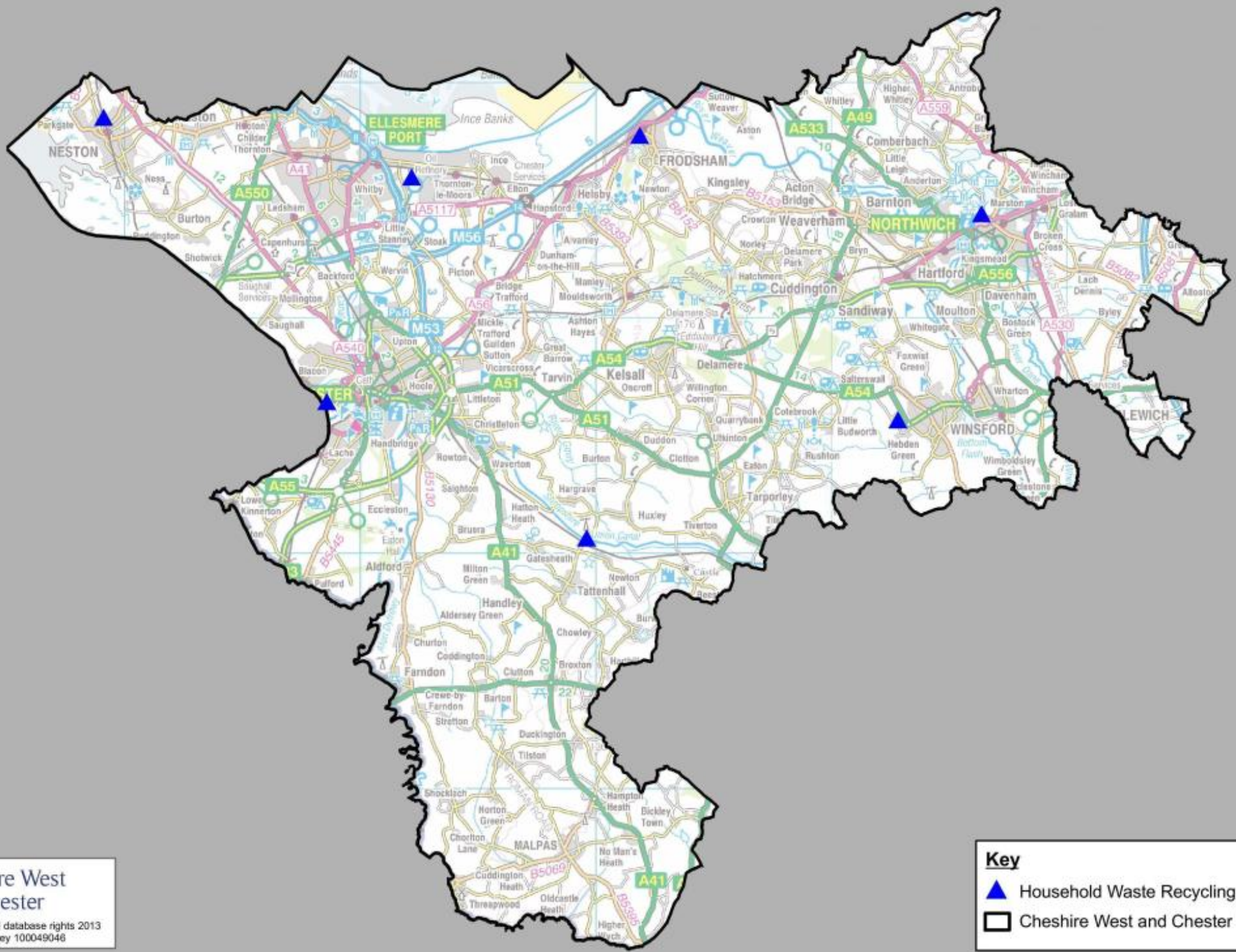
A Current facilities in the plan area

Household waste recycling centres

Table A.1 Existing facilities - household waste recycling centres

Site Location	Operator	Capacity (EA permit)	Inputs 2007	Inputs 2008	Inputs 2009	Inputs 2010	Inputs in 2011
Bumpers Lane, Chester	H W Martin Waste Limited	24,999	10,008	8,247	8,855	8,440	8,520
Bridges Road, Ellesmere Port	H W Martin Waste Limited	24,999	19,910	9,996	10,014	9,744	8,556
Old Station Yard, Frodsham	H W Martin Waste Limited	5,000	19,475	3,137	3,369	3,263	3,169
Clayhill Industrial Estate, Neston	H W Martin Waste Limited	12,499	2,505	4,023	4,026	4,042	3,948
Red Lane, Tattenhall	H W Martin Waste Limited	5,000	3,068	2,536	2,468	2,185	2,143
Old Warrington Lane, Northwich	H W Martin Waste Limited	25,000	10,968	8,370	9,127	8,633	7,975
Leslie Road, Winsford	H W Martin Waste Limited	24,999	5,671	5,395	6,137	6,047	6,050

Cheshire West and Chester Household Waste Recycling Centres



Cheshire West and Chester

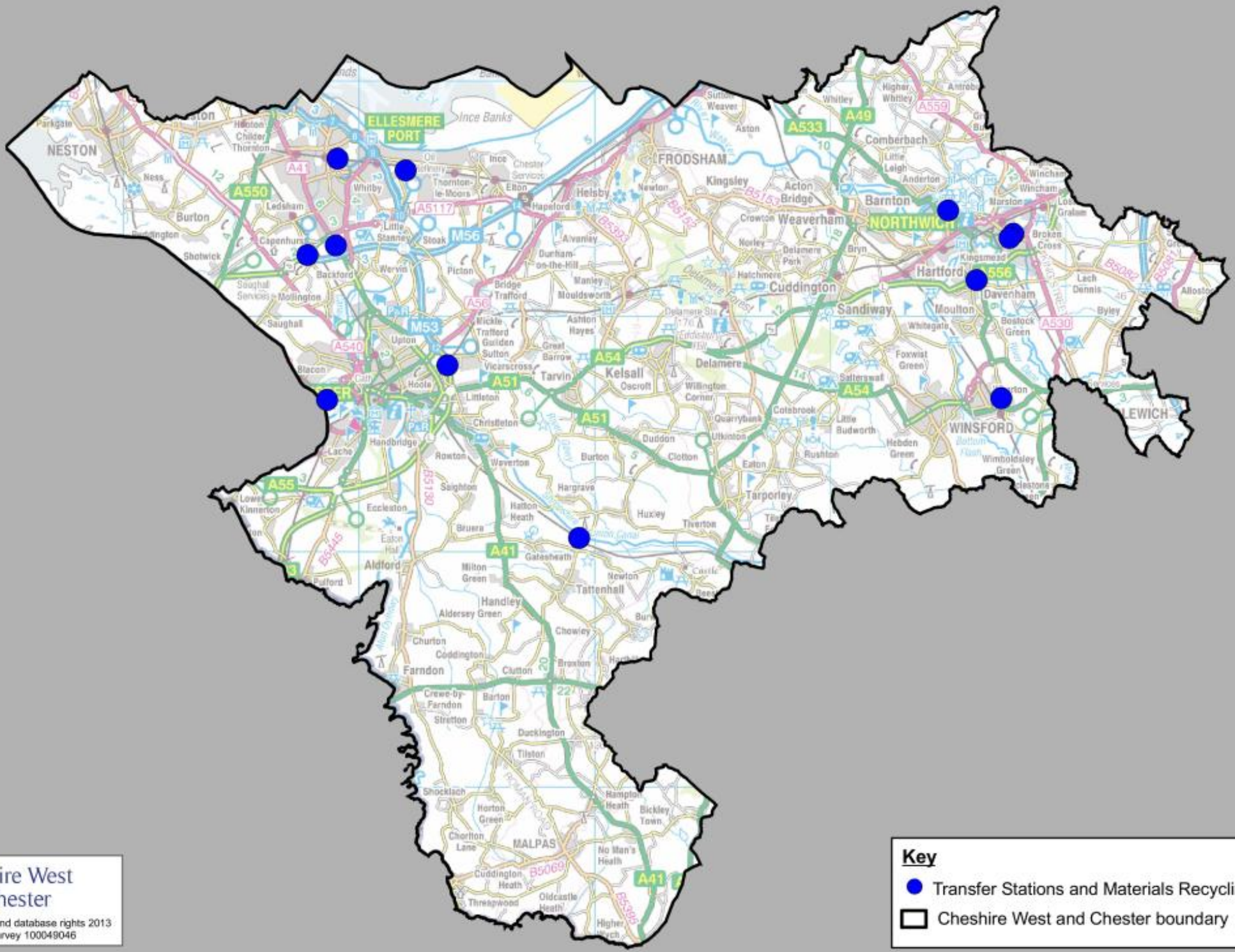
Waste transfer and materials recycling

Table A.2 Existing facilities - transfer stations

Site Location	Operator	Capacity (EA Permit)	Inputs 2007	Inputs 2008	Inputs 2009	Inputs 2010	Inputs 2011
Transfer Stations							
Park Road, Winnington	ASH Skip Hire	25,000	3,217	10,466	8,710	9,514	9,026
Rudheath Industrial Estate, Northwich	AAA Skips	25,000	0	0	0	0	0
Arterial Road, Dunkirk	Alans Skip Hire	33,000	17,169	24,548	17,635	13,579	799
Rudheath Industrial Estate, Northwich	Northwich Mini Skips	5,000	4,568	1,363	1021	996	737
Bridges Road, Ellesmere Port	Alchem Ltd	5,000	821	16,073	11,825	9,674	9,548
Liverpool Road,Backford	Cheshire Waste Skip Hire	45,000	21,387	47,407	57,290	18,226	17,409
Tattenhall Road, Tattenhall	Tudor Griffiths Ltd	74,999	8,837	11,520	23,819	56,712	62,881
Davenham Highways Depot	BAM Nuttall	25,000	1,730	4,508	0	1,776	2,496
Guilden Sutton Depot	BAM Nuttall	25,000	6,231	0	4,608	3,937	6,155
Materials Recycling Facilities							
Bumpers Lane, Chester	May Gurney Ltd	25,000	15,553	8,961	13,621	14,976	14,812
Road One, Winsford	May Gurney Ltd	25,000	N/A	N/A	N/A	N/A	N/A

Site Location	Operator	Capacity (EA Permit)	Inputs 2007	Inputs 2008	Inputs 2009	Inputs 2010	Inputs 2011
Ellesmere Port Municipal Depot	Chester West and Chester	25,000	4,309	0	3,917	3,968	3,948

Cheshire West and Chester Transfer Stations and Materials Recycling Facilities



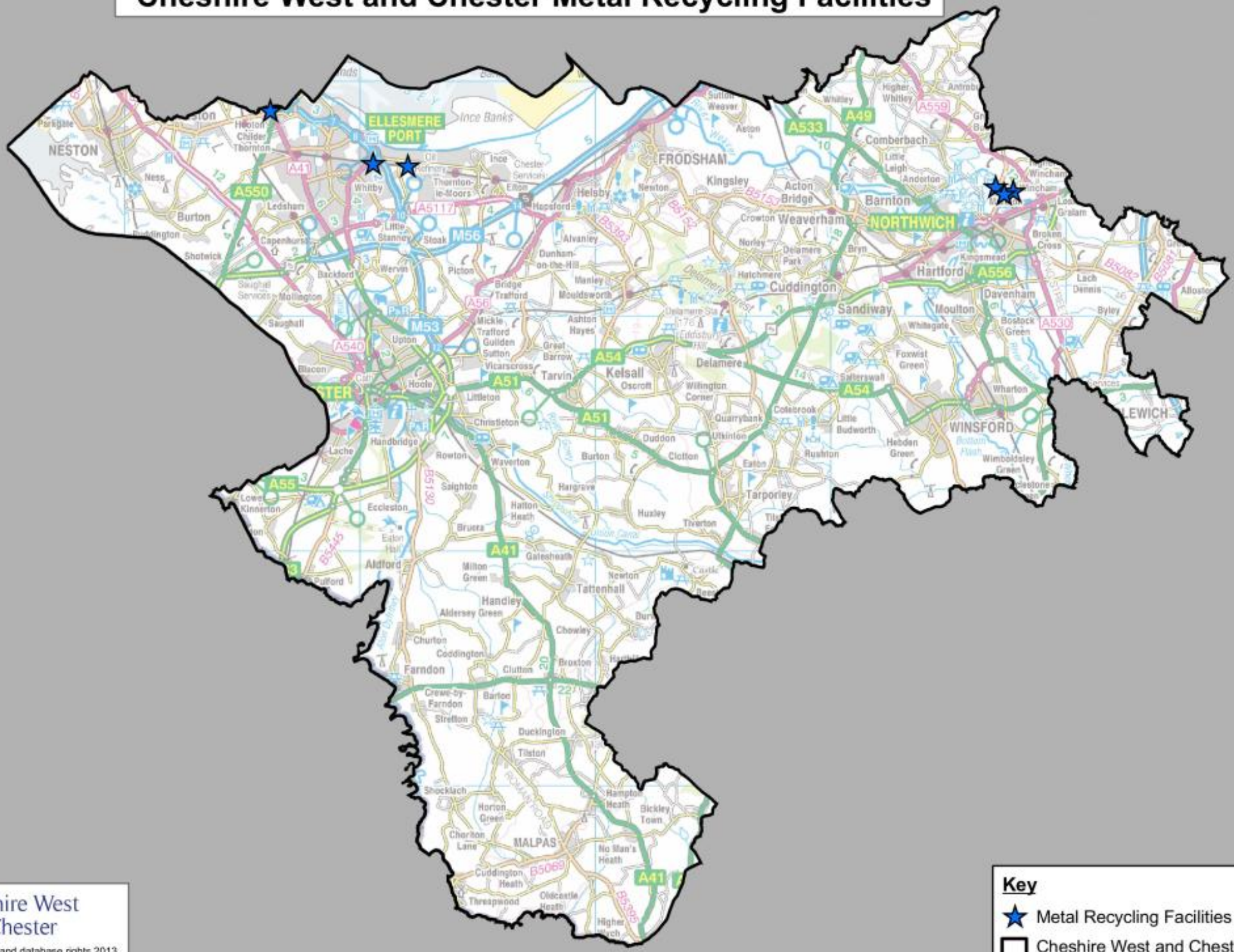
Cheshire West and Chester

Metal recycling (including end of life vehicle facilities)

Table A.3 Existing facilities - Metal recycling facilities

Site location	Operator	Capacity (EA permit)	Inputs 2007	Inputs 2008	Inputs 2009	Inputs 2010	Inputs 2011
A1 Auto Services, Ellesmere Port	A1 Auto Services	2.499	0	0	0	0	0
Hooton Grange, Hooton	Norman Robertson	5,000	29,868	46	26	11	15
KJ Bell Scrap Metal, Ellesmere Port	K Bell	4,999	0	0	4,621	0	0
Trade Car Parts, Northwich	Trade Car Parts	2,500	0	0	925	175	0
Northwich Metals, Northwich	A Viles Northwich Metals	4,999	0	0	2,500	2,022	2,137
Roberts Scrap Yard, Northwich	WR Roberts & Sons	25,000	0	0	14,937	14,990	15,250

Cheshire West and Chester Metal Recycling Facilities



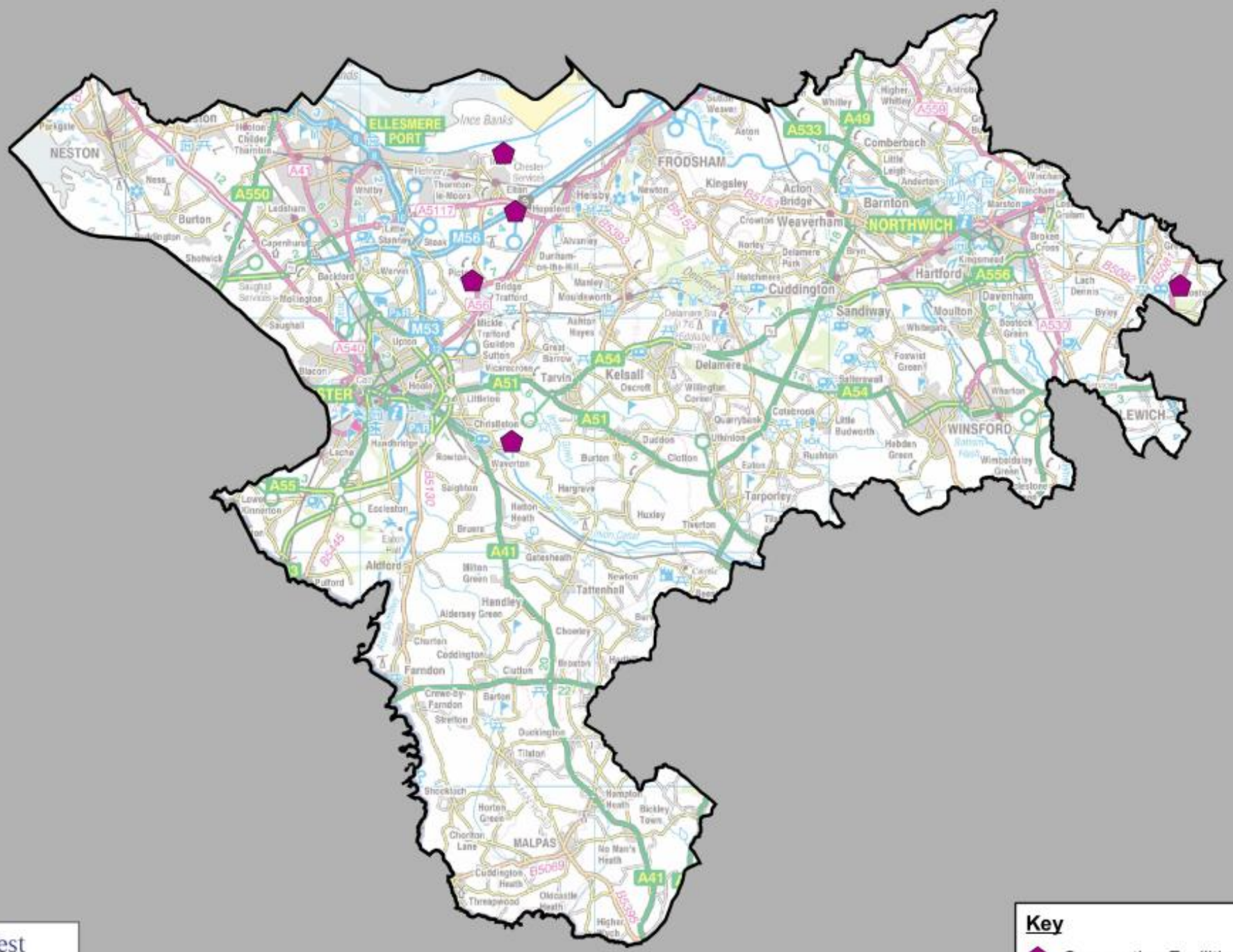
Cheshire West and Chester

Composting facilities

Table A.4 Existing facilities - composting

Site Location	Operator	Capacity	Inputs 2007	Inputs 2008	Inputs 2009	Inputs 2010	Inputs 2011
Cotton Abbots, Chester	CE & A Whalley	25,000	15,948	4,909	6,718	7,169	8,452
Hapsford composting, Chester	G Whittaker &Sons	24,999	9,963	23,124	21,880	14,857	23,496
Brookhouse Farm, Allostock	CRJ Services Ltd	5,000	N/A	N/A	N/A	N/A	N/A
Gowy composting, Chester	FCC Environmental	20,000	5,443	28,879	9,198	9,412	10,296
Holme Farm, Ince	JH Willis &Sons	24,999	N/A	N/A	63,669	66,479	35,385

Cheshire West and Chester Composting Facilities



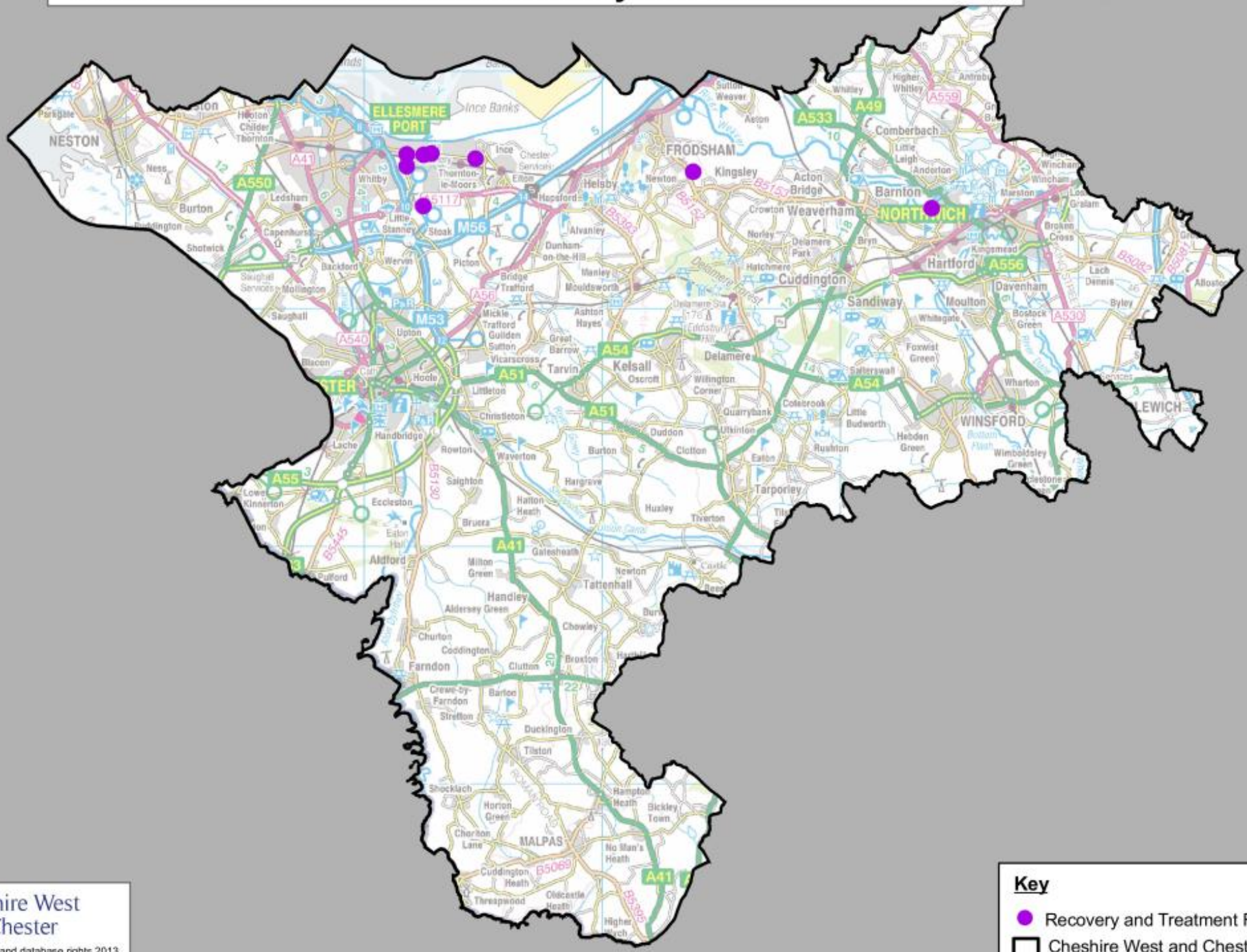
Cheshire West and Chester

Other recovery & treatment

Table A.5 Existing facilities - Recovery and treatment

Site location	Operator	Capacity in EA permit	Inputs 2007	Inputs 2008	Inputs 2009	Inputs 2010	Inputs 2011
Cheshire Waste Management Centre Ellesmere Port	Tradebe North West Ltd	50,000 treatment of hazardous waste only	0	16,963	18,175	39,823	73,270
Electrical Oil Services Ellesmere Port	Electrical Oil Services Ltd	24,999 treatment of hazardous waste only	10,769	8,236	8,823	10,238	10,461
Ellesmere Port Incinerator Ellesmere Port	Veolia Environmental Ltd	100,000 treatment of hazardous waste only	78,674	75,283	75,292	75155	818
Sims Recycling Solutions Ellesmere Port	Sims Recycling Solutions	150,000 WEEE	0	0	24,449	34,171	41,731
Ellesmere Port Wastewater treatment works	United Utilities Water Plc	75,000	31,250	74,041	74,402	106,380	69,465
Recresco, Ince	Recresco Limited	383,000	N/A	N/A	108,563	145,215	121,935
Lostock Sodium Carbonate Manufacturing Site, Northwich	Brunner Mond	Hazardous restricted user (private) facility	0	0	0	708	2,251
Whitley Brook Crematorium Frodsham	Whitley brook Crematorium Ltd	5,000 pet and clinical waste only	115	60	59	48	79

Cheshire West and Chester Recovery and Treatment Facilities



Cheshire West and Chester

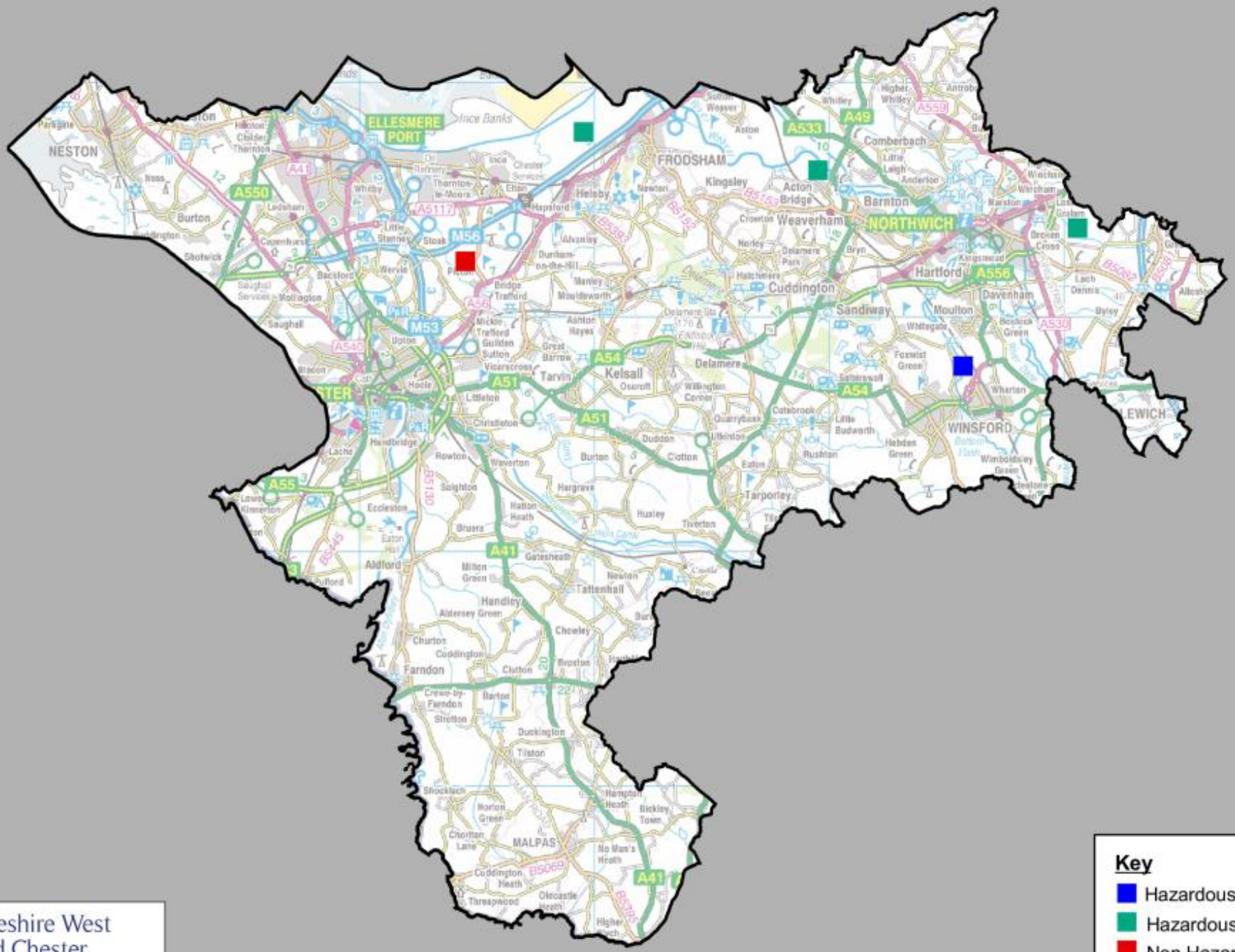
Landfill

Table A.6 Existing facilities - Landfill

Site Location	Operator	Capacity in tonnes/annum in EA licence	Inputs 2007	Inputs 2008	Inputs 2009	Inputs 2010	Inputs 2011
Non hazardous							
Gowy landfill, Chester	FCC Environment	250,000	133,672	224,708	151,798	219,462	237,736
Hazardous merchant							
Minosus, Middlewich[(1)]	Minosus Ltd/ Veolia	100,000-permanent storage of hazardous waste APC residues	4,973	20,068	29,424	27,893	41,427
Hazardous restricted							
Holford Brinefield Northwich	Ineos Enterprises Ltd	220,000 in house facility for	35,221	149,736	136,064	131,571	131,449
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

1. This site is storage in Winsford rock salt mine

Cheshire West and Chester Landfill Sites



Cheshire West and Chester

B Facilities planned but not operational

B.1 The table below shows the annual capacity of waste management facilities within Cheshire West and Chester that have been granted planning permission but have not yet commenced operation.

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. Whilst this lack of a start date is not helpful its capacity remains available to the waste industry.

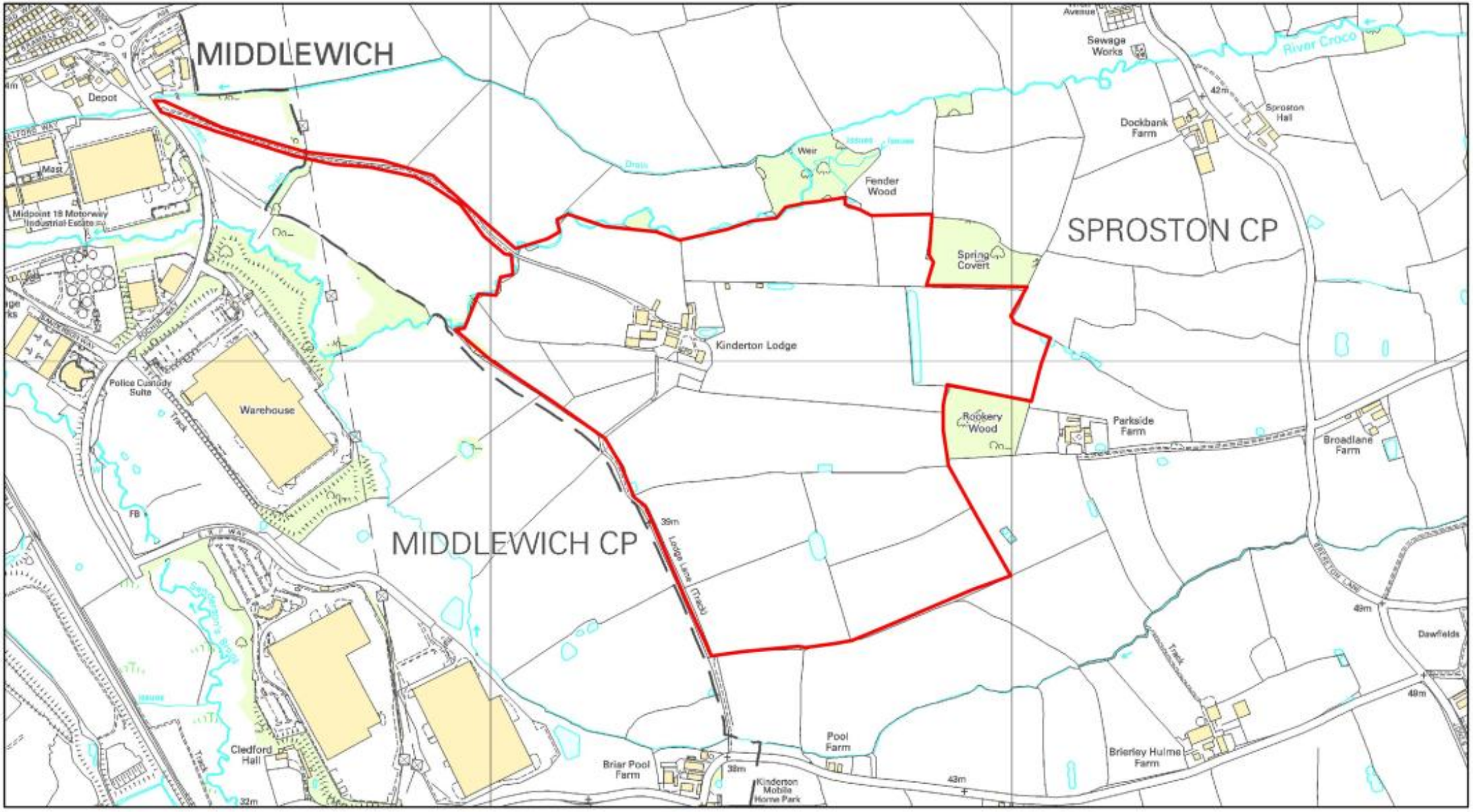
Table B.1 Waste management facilities with planning permission but not yet operational

Type of Facility	Planned capacity per annum	Site Location
Composting		
In vessel composting	40,000	Ince Resource Recovery Park
In vessel composting	150,000	Lostock Works Northwich
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 Resource Recovery Park
Materials recycling facility (commercial waste)	800	Winsford Industrial Estate
Total reception and transfer	**336,800**	
Recycling (processing)		
Timber recycling facility	150,000	Ince Park
Total recycling (processing)	**150,000**	

Type of Facility	Planned capacity per annum	Site Location
Metal recycling and recovery		
Semi precious metal recovery	15,000	Lostock Works Northwich
Total metal recycling and recovery	**15,000**	
Treatment		
Mechanical biological treatment with anaerobic digestion	100,000	Ince Resource Recovery Park
Mechanical biological treatment with anaerobic digestion[(1)]	200,000	Lostock Works Northwich
Soil treatment plant	100,000	Ince Resource Recovery Park
Incinerator bottom ash facility	250,000	Ince Resource Recovery Park
Total treatment	**650,000**	
Energy recovery		
Energy from waste plant	600,000	Lostock Works Northwich
Energy from waste plant	850,000	Ince Resource Recovery Park
Biomass renewable energy plant[(2)]	123,550	Ince Resource Recovery Park
Bio energy plant	200,000	Lostock Works Northwich
Total recovery	**1,773,550**	
Disposal		
Non hazardous landfill	300,000	Kinderton Lodge, Middlewich
Total landfill	2,300,000	

Facilities planned but not operational

1. This capacity is subject to Section 106 agreement. Planning permission has not been issued.
2. Total capacity at this site is 175,000 tonnes to treat 70 percent waste wood and 30 percent virgin timber



Cheshire West and Chester

Kinderton Lodge Landfill Proposal

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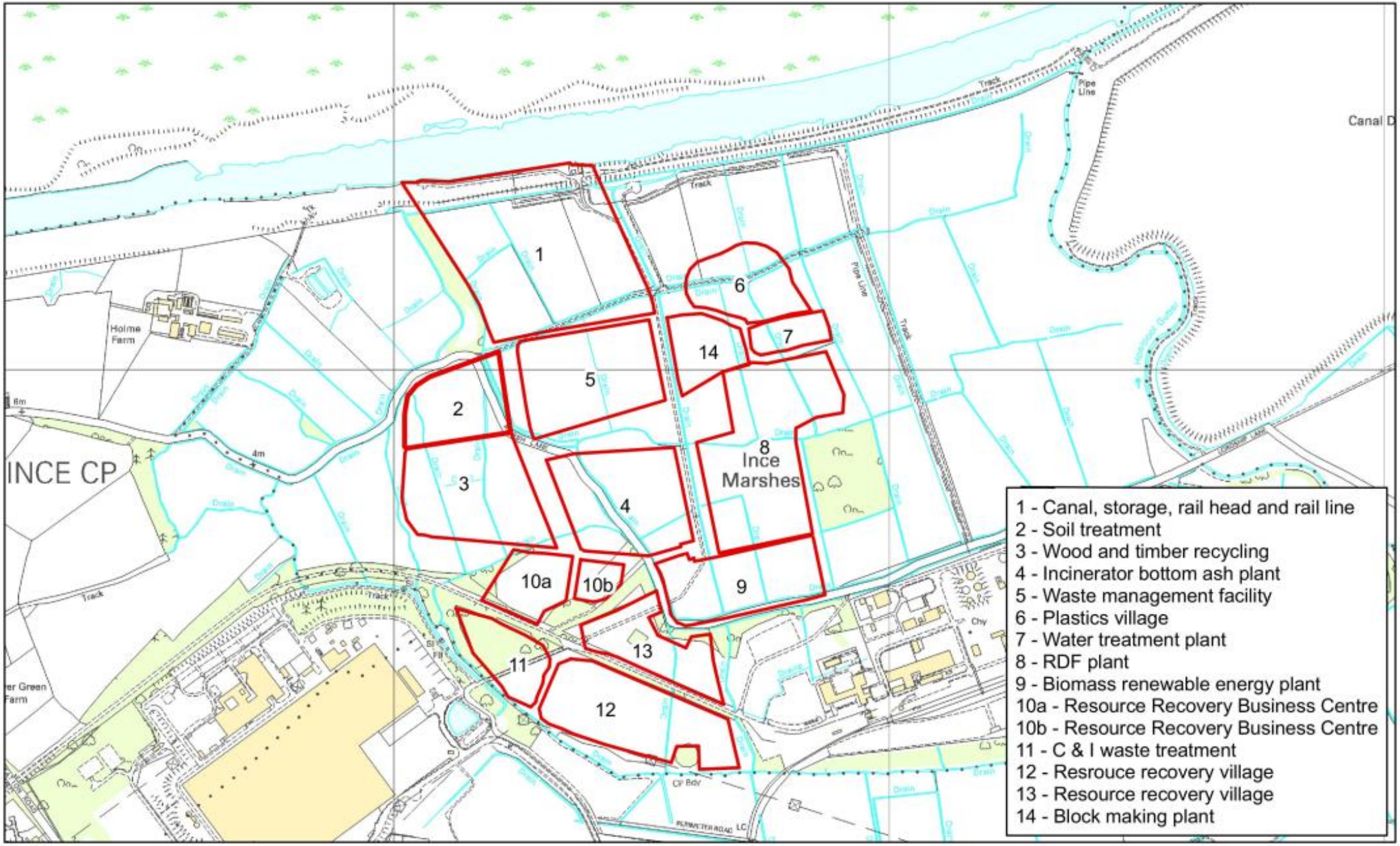
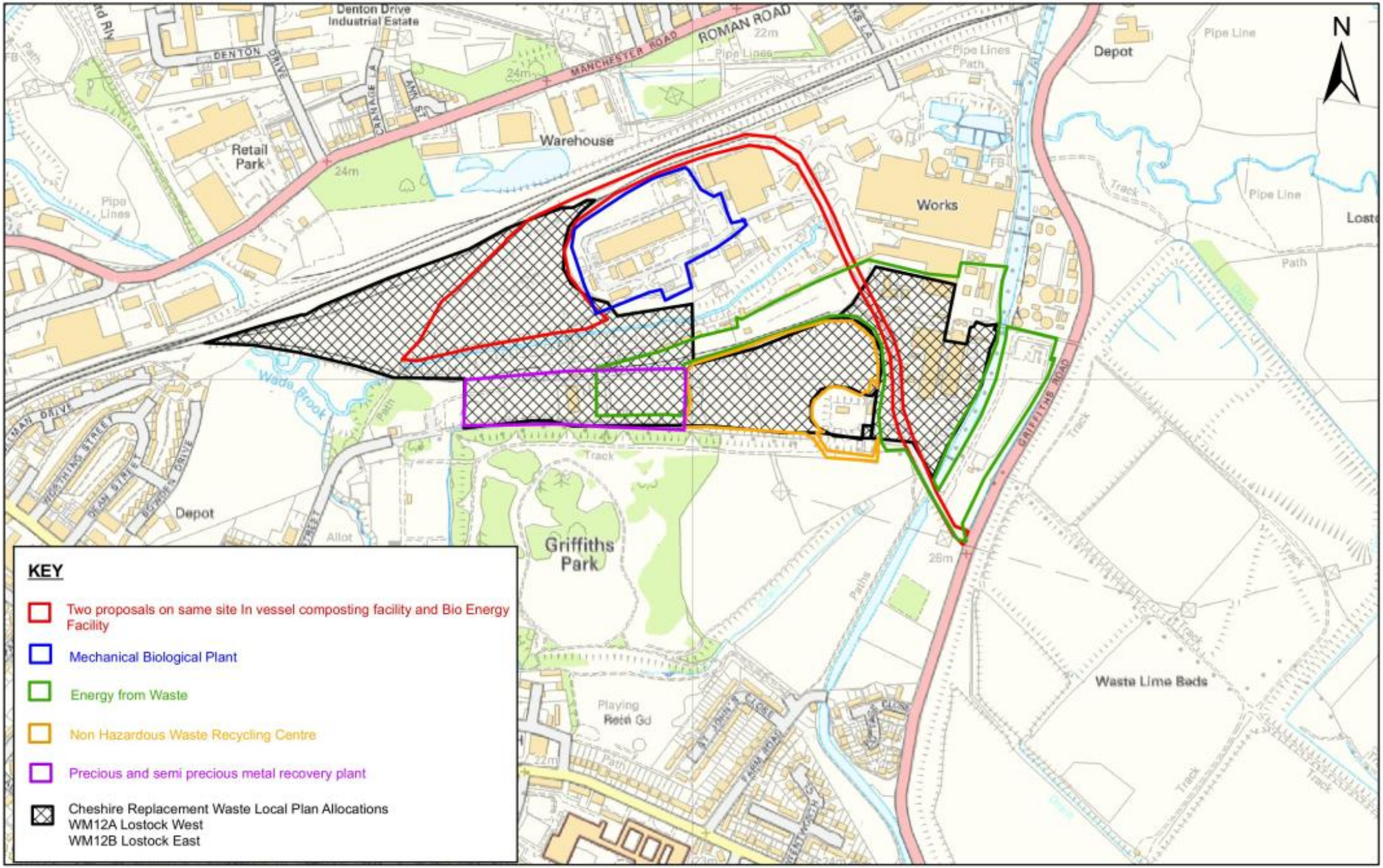


Cheshire West and Chester

Ince Resource Recovery Park (RRP)



Cheshire West and Chester

Lostock Works

Accessing Cheshire West and Chester Council information and services

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إذا أردت المعلومات بلغة أخرى أو بطريقة أخرى، نرجو أن تطلب ذلك منّا.

যদি আপনি এই ডকুমেন্ট অন্য ভাষায় বা ফরমেটে চান, তাহলে দয়া করে আমাদেরকে বলুন।

Pokud byste požadovali informace v jiném jazyce nebo formátu, kontaktujte nás

Jeżeli chcieliby Państwo uzyskać informacje w innym języku lub w innym formacie, prosimy dać nam znać.

ਜੇ ਇਹ ਜਾਣਕਾਰੀ ਤੁਹਾਨੂੰ ਕਿਸੇ ਹੋਰ ਭਾਸ਼ਾ ਵਿਚ ਜਾਂ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ ਚਾਹੀਦੀ, ਤਾਂ ਇਹ ਸਾਥੋਂ ਮੰਗ ਲਓ।

如欲索取以另一語文印製或另一格式製作的資料，請與我們聯絡。

Türkçe bilgi almak istiyorsanız, bize başvurabilirsiniz.

اگر آپ کو معلومات کسی دیگر زبان یا دیگر شکل میں درکار ہوں تو برائے مہربانی ہم سے پوچھئے۔

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