



| | |
|--|-----------|
| 1. Introduction | 3 |
| 1.1 Joint Waste DPD | 3 |
| 1.2 Representations on Soundness | 6 |
| 2. Evidence Base | 7 |
| 2.1 Portrait of Merseyside and Halton | 7 |
| 2.2 Updating the Needs Assessment, Capacity Gaps and Site Requirements | 12 |
| 2.3 Summary of Needs Assessment | 13 |
| 2.4 Implications : Sites requirements | 22 |
| 3. Vision and Spatial Strategy | 35 |
| 3.1 Vision | 35 |
| 3.2 Spatial Strategy | 40 |
| 4. Site Allocations to deliver capacity requirements | 43 |
| 4.1 Sub-Regional Sites | 45 |
| 4.2 District-level Sites | 48 |
| 4.3 Landfill Sites | 50 |
| 4.4 Additional Sites | 52 |
| 5. Development Management Policies | 58 |
| 5.1 Protection of Existing Waste Management Capacity | 58 |
| 5.2 Waste Prevention and Resource Management | 59 |
| 5.3 Design and Layout for New Development | 60 |
| 5.4 Design and Operation of New Waste Management Facilities | 61 |
| 5.5 Sustainable Waste Transport | 63 |
| 5.6 Criteria for Waste Management Development | 65 |
| 5.7 Waste Management Applications on Unallocated Sites | 68 |
| 5.8 Energy from Waste | 71 |
| 5.9 Development Management Policy for Landfill | 72 |
| 5.10 Restoration and Aftercare | 75 |
| 6. Implementation and Monitoring | 77 |
| 6.1 Delivery Framework | 77 |
| 6.2 Monitoring Framework | 84 |
| 7. Glossary | 88 |



WASTE Planning Merseyside

Your Waste, Your Opportunity, For Our Future

Publication DPD

Contents

| | |
|--------------------------------|-----|
| 8. Appendices | 96 |
| 8.1 Appendix 1 : Waste Uses | 97 |
| 8.2 Appendix 2 : Site Profiles | 104 |



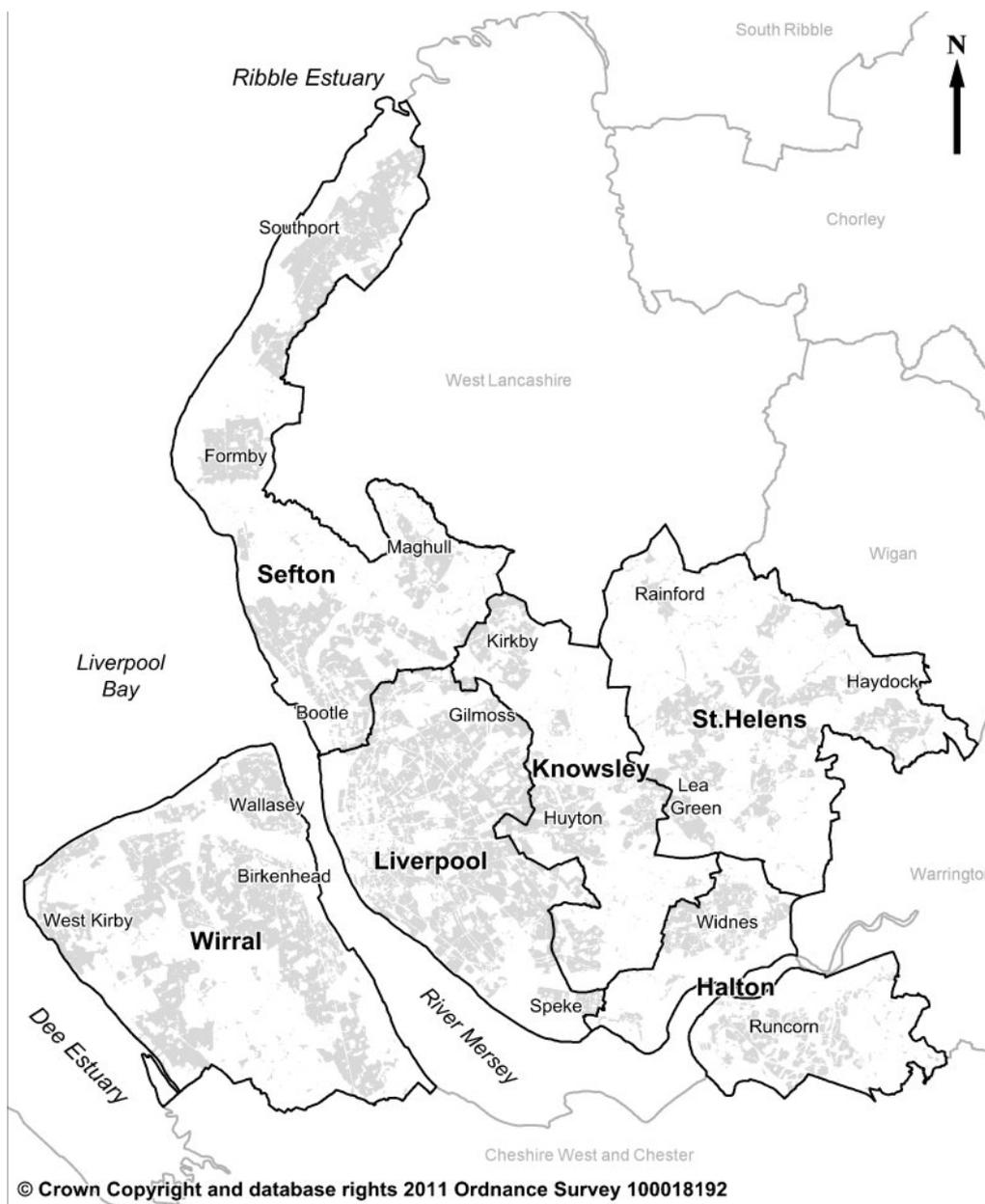
1 Introduction

1.1 Joint Waste DPD

1.1 Government policy and EU legislation strongly encourages local authorities to work jointly in preparing Joint Waste Development Plan Documents given the strategic nature and scale of waste management. The preparation of a Waste Development Plan Document (Waste DPD) is the responsibility of all districts and will form an important part of their statutory District Local Development Frameworks (LDFs).

1.2 Preparation of the Waste DPD began early in 2006 following Full Council approval to commence preparation of a joint DPD from Knowsley, Liverpool, St Helens, Sefton and Wirral Councils. In 2007, Halton Council also joined the Waste DPD process, and this was accompanied by further Full Council resolutions. Figure 1.1 indicates the Waste DPD plan area, showing the 6 participatory Districts in Merseyside and Halton.

Figure 1.1 Waste DPD - Plan Area





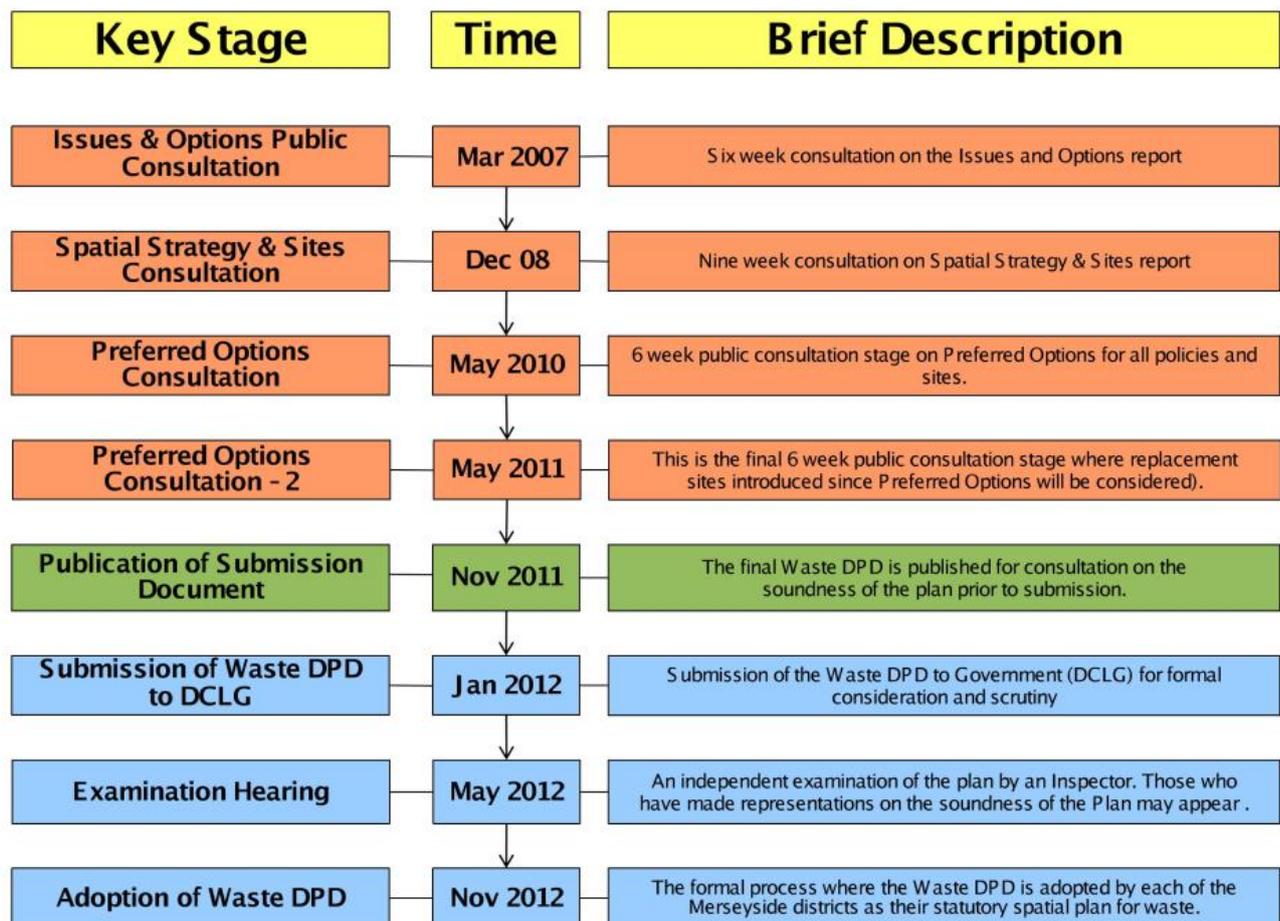
Glossary of Technical Terms

This document contains some technical terms and abbreviations. Many of them are defined in the Glossary (Section 7). To assist readers in accessing these definitions, where terms are used which are defined in the Glossary, these are annotated with a super-script letter "G", eg : Habitats Regulations Assessment^G.

1.3 The Waste DPD has taken account of the local visions identified in the Sustainable Community Strategies^G (SCSs) for each of the participating authorities and Local Strategic Partnerships^G (LSPs) which set out the long term plans for their individual communities. By taking account of those aspects of the SCSs that relate to waste and climate change, the Waste DPD will contribute to the delivery of local vision of the areas individually and to the sub-region as a whole, through focused delivery of sustainable waste management.

1.4 The Waste DPD has been through several rounds of public consultation before reaching the final stage, and has been approved by the six districts at each stage of the process. These are shown in the diagram below:

Figure 1.2 Timeline for development of the Waste DPD



1.5 At each stage, the results of the consultation have been used to inform the development of the subsequent documents. There has been a good deal of consensus on all of the policy issues. The process of identifying appropriate site allocations has been complex and challenging. Several sites have been deleted during the course of developing the Waste DPD, and these have been replaced using the same comprehensive site selection process. At each stage any new sites proposed for allocation have been the subject of a consultation to ensure that stakeholders have had opportunity to comment.



1.6 The Waste DPD is supported by a series of supporting documents including a Needs Assessment and Sustainability Appraisal⁶ (SA), it has also been subject of a Habitats Regulations Assessment⁶ (HRA), all of which can be viewed at on the Consultation Portal at <http://merseysideeas-consult.limehouse.co.uk/portal>. The key documents are listed in Table 1.1:

Table 1.1

| |
|--|
| Broad Site Search Report |
| WRATE Modelling report |
| Health Impacts Assessment |
| Radioactive Waste Survey |
| NW Region Broad Locations Report 2008 |
| NW C&I Survey 2006/7 |
| NW CD&E Survey 2006/7 |
| PO LF sites short list |
| LF methodology |
| Built facilities methodology |
| Built Facilities sites long list |
| All Sites Scored for Preferred Option list |
| Equality Impact Assessment |
| Publication Document HRA Report |
| Map of European sites designated under Habitats Regulations |
| PO Needs Assessment and P.I. Report |
| Publication Document Non-Technical Summary |
| Merseyside Waste DPD Sub-Regional Strategic Flood Risk Assessment final report |
| Sustainability Appraisal - Report |
| Sustainability Appraisal - Non-Technical Summary |
| Agricultural Waste Survey |
| Issues and Option Report |
| Spatial Strategy & Sites Report |
| Preferred Options Report |
| Preferred Options 2 Report : new Sites |
| Results of Consultation on Issues and Option Report |
| Results of Consultation on Spatial Strategy & Sites Report |
| Results of Consultation on Preferred Options Report |
| Results of Consultation on Preferred Options 2 Report : new Sites |



1.7 Once adopted the Waste DPD will replace the policies for waste development contained within the Unitary Development Plans (UDPs) for Halton, Knowsley, Liverpool, Sefton, St Helens and Wirral (see section 3.30 and Table 3.1).

1.2 Representations on Soundness

1.8 Merseyside Environmental Advisory Service (Merseyside EAS) is publishing the Publication Waste DPD (the proposed Submission Draft) on behalf of the six districts for representations to be made. The Joint Merseyside and Halton Waste Development Plan Document (DPD) Submission Version will then be submitted to the Secretary of State for examination by an independent Inspector.

1.9 The Waste DPD sets out the vision, strategic objectives and spatial strategy for waste management for the districts of Halton, Knowsley, Liverpool, St. Helens, Sefton and Wirral and outlines a planning policy vision to 2027, to make the sub-region as self sufficient and sustainable as possible in waste management.

1.10 The Waste DPD applies to the whole of the administrative areas of all the six districts in the Merseyside and Halton sub-region.

1.11 Period for Representations

1.12 The period for representations to be made will commence on the November 2011 and will finish on December 2011.

1.13 Representations can only be made on issues of soundness and legal compliance. Details of what makes a sound and legally compliant plan are available separately.

1.14 Representations may be made by way of electronic communication by using an on-line response form available on the website at merseysideeas-consult.limehouse.co.uk, or as an email attachment to waste.dpd@sefton.gov.uk or in writing by sending a completed form to:

Merseyside EAS
1st Floor, Merton House
Stanley Road
Bootle
Merseyside, L20 3DL

1.15 A copy of the form can also be obtained from the address above, or by contacting the Waste DPD Team on 0151 934 2804.

1.16 Merseyside EAS will collate and rationalise the representations on soundness and legal compliance on behalf of the six districts before submission to the Planning Inspectorate with the Submission Version. Any representation may be accompanied by a request to be notified, at a specified address of:

- The submission of the document for independent examination;
- The recommendations of any person appointed to carry out an independent examination of the DPD; and,
- The adoption of the Waste DPD.

1.17 A copy of the [Publication Waste DPD and supporting documents](#) and response forms, is available at One Stop Shops and local libraries throughout the sub-region, check local branch for opening times. A copy of each document and library opening hours are also available on the Council websites and at www.wasteplanningmerseyside.gov.uk



2 Evidence Base

2.1 Portrait of Merseyside and Halton

Merseyside and Halton

2.1 Merseyside is made up of the five metropolitan boroughs of Liverpool, Knowsley, Sefton, St. Helens and Wirral. Halton is a unitary authority to the east of Merseyside which covers the towns of Widnes and Runcorn. The sub-region is strongly influenced by the River Mersey and its estuary which borders four of the six Districts.

2.2 Despite being highly urbanised, between 33 and 50% of land in all the districts except Liverpool is designated as Green Belt. The vast majority is high quality agricultural land and farming remains economically important particularly in Sefton, St Helens and Wirral. The geology and aquifers underlying the sub-region are also highly sensitive, and has an impact on the types of waste management facility which are appropriate in particular locations.

The Population of Merseyside and Halton

2.3 The current combined population of Merseyside and Halton stands at just under 1.5 million. Some of the wards across all six districts are amongst the most deprived nationally. Without exception, all districts have given high priority to renewing housing stock in attempt to stem population and economic decline. This has largely been through a programme of housing clearance and rehabilitation, and the Housing Market Renewal Initiatives in several of the districts. This has an impact on waste management, in terms of the volumes of construction and demolition waste created and the potential increase of Local Authority collected waste produced as the number of households increases. The needs assessment has also accounted for projected increases in household numbers and its impact on waste generation.

Industrial Heritage and Its Effects on Waste

2.4 Liverpool and surrounding districts were in their industrial prime during the 18th and 19th Centuries and the Industrial Revolution. The towns of St. Helens, Widnes, Runcorn, Port Sunlight and Prescot were dominated by the glass and chemical industry and some of this business continues to this day. Liverpool, Bootle and Birkenhead were the focus for port activity and linked the North West to the rest of the world. Port activity remains a key economic driver for these districts, with tonnages being handled by the Port and docks increasing in recent years and continues to do so.

2.5 In recent history, employment patterns on Merseyside and Halton have changed from being dependent on industry to a more commerce and service based economy, although this varies locally. Halton, Knowsley and St. Helens still have significant manufacturing industries within their districts. The overall decrease in heavy and manufacturing industry across Merseyside and Halton and the increasing importance of commercial and service sectors can be seen in the amounts and types of waste produced across the sub-region. In planning to meet Merseyside's future waste management needs account has been taken of the changing patterns of economic activity and the effect this is likely to have on the amount and type of waste generated.

2.6 The industrial heritage of Merseyside and Halton has led to derelict and contaminated land across the sub-region as well as high levels of unemployment as a result of declining industries. This can have an impact both in terms of what development is appropriate on the land, the cost of redevelopment and also in the generation of contaminated wastes for disposal.

Economic Activity and Governance and its Effects on Waste

2.7 Liverpool is the second largest city in the North West region, and this is reflected in the creation of Liverpool City Region (LCR). Halton, Knowsley, Liverpool, Sefton, St. Helens and Wirral are the core districts of the Liverpool City Region, although its geographical reach also extends to adjacent authorities.

2.8 The City Region has become more important as the Coalition Government makes moves to abolish the regional layer of planning and is replacing regional development agencies with Local Enterprise Partnerships (LEPs). The Liverpool City Region LEP will assist inward investment, continued regeneration and investment in the Low Carbon economy. It has the potential to affect the quantities and types of waste arising in the sub-region.



2.9 The global economic downturn has inevitably affected the sub-region, as it has affected the rest of the country, and the intensity of development has slowed down noticeably. The pace of development has been further exacerbated by public sector spending cuts affecting construction projects such as 'Building Schools for the Future' and the availability of support for public sector regeneration and housing schemes. Budget restraints have also been imposed on the Merseyside local authorities which will have a knock on effect on spending across all departments including waste collection and management. All this in turn will affect the amount of waste being generated and recycled, particularly construction, demolition and excavation (CD&E) wastes but also commercial and industrial (C&I) wastes.

2.10 Each site developed for waste management uses is however expected to generate employment benefits for the surrounding area. The estimated total number of direct jobs that may be created as a result of the development of the sites allocated in the Waste DPD is 500-700 with additional indirect jobs estimated at up to twice this number. Temporary jobs related to construction of facilities are expected to total 25-400 per site, depending on the scale of the facility being built.

Self Sufficiency in Waste Management in Merseyside and Halton

2.11 The Merseyside and Halton sub-region is the third largest producer of waste in the North West region behind Lancashire and Greater Manchester. The sub-region is a highly urbanised area with limited opportunity for landfill operations and significant constraints on land for built facilities. Currently about 13% of waste arisings is exported outside the area for landfill disposal.

2.12 There is a continuing interest in developing new waste management facilities in the sub-region varying from waste transfer stations and materials recycling facilities⁶ (MRFs) to autoclaving⁶, gasification⁶ and other large scale Energy from Waste⁶ (EfW) facilities with proposals at the planning stage or with valid consents to be implemented. This has resulted in an increasing ability for the sub-region to be self sufficient, but also in significant over-capacity of consented EfW facilities in the sub-region. Some of these facilities will be of regional, if not national, significance, and their capacity may not therefore, be entirely available for Merseyside and Halton's needs.

Impacts of Land Availability on Waste Management in Merseyside and Halton

2.13 There are three land availability issues which are having an important effect on waste management in Merseyside and Halton. Firstly, there is a limited supply of brownfield land and other land suitable for employment uses. This also has an impact on the availability of sites for waste management allocations. This is particularly the case for larger sites which would be suitable for sub-regional size facilities which are in direct competition with strategic employment and regeneration sites. This has had an impact on land availability for waste management uses in all districts, as they are planning for employment growth over the Plan period.

2.14 Secondly, due to the underlying geology and aquifers being highly sensitive to pollution, the sub-region is severely constrained in terms of potential locations for future landfill sites. The majority of the sub-region is classed as major aquifer, with limited areas being afforded any kind of protection by drift geology, such as boulder clay. There are significant groundwater protection issues associated with landfill activity, and the Environment Agency will not permit landfill sites to be developed where this is likely to be an issue, or where the effects cannot be adequately mitigated for.

2.15 Thirdly, much of the landfill activity has occurred in areas where quarrying or mining has already taken place. These opportunities are now very limited in Merseyside and Halton. Only two active minerals quarries remain, both of which are constrained by underlying major aquifer and other geological issues.

Transport Infrastructure and Movement of Waste

2.16 The transport infrastructure for the sub-region is diverse, offering excellent connectivity to the rest of the UK and beyond. The River Mersey and its ports remain major economic drivers for the sub-region and its economic regeneration and provides an opportunity to transport waste between dock and wharf facilities by a generally more sustainable means than offered by road transport. This depends on many factors including distances travelled and loading facilities. There is also access to the canal network including Manchester Ship Canal, Leeds-Liverpool Canal and Bridgewater Canal. Transportation is a key consideration in the Sustainability Appraisal (SA) conducted to inform the preparation of the Waste DPD.



2.17 The motorway network includes the M62, M57, M58 and M6 linking to a network of "A" roads into and around the sub-region. Plans are well advanced for the second Mersey Gateway crossing between Widnes and Runcorn, which will both improve the sub-regional road infrastructure and create and utilise large quantities of construction, demolition and excavation waste. Currently, the majority of waste produced in the sub-region is transported on the road network alone.

2.18 The national West Coast Mainline branches into the Liverpool Lime Street Terminus Station. Electrification of the Liverpool to Manchester and Liverpool to Preston lines is expected to commence during 2011. There are goods rail termini located at Knowsley Industrial Park, Sefton, Liverpool and Garston Docks and Mersey Gateway, Widnes and Weston Docks, Runcorn. There are rail connections to the docks with potential to re-open old goods lines. There are long term plans to develop an inter-modal rail freight depot at Parkside in St.Helens. In the long term, these present opportunities to move waste by rail rather than by road.

2.19 Liverpool John Lennon Airport is situated at the boundary between Liverpool, Knowsley and Halton. It is the second largest airport in the region, and is also an important economic driver for the sub-region. Its growth reflects the importance of the tourism and leisure sectors. Growth of these sectors has a corresponding effect on the generation of commercial waste across the sub-region.

Natural and Heritage Assets and Their Impacts on Waste Activity

2.20 Liverpool City Region has a wealth of European Union (EU) and international nature conservation site designations for its coast and estuaries with international designations covering the Sefton Coast, Mersey Estuary, Dee Estuary, River Alt Estuary, Mersey Narrows and North Wirral Foreshore all of which are protected under UK and EU legislation. In terms of waste management, the conservation value of the Mersey Estuary limits the potential locations and type of waste management facilities due to potential effects on designated natural assets, and these matters have primarily been addressed through the Habitats Regulations Assessment process.

2.21 The City of Liverpool has a significant architectural and cultural heritage, and the world renowned Liverpool waterfront was designated UNESCO World Heritage Status in 2004. There are also a number of Listed Buildings & Conservation Areas throughout Liverpool and the wider city region, which are also subject to special legal protection. There should be no direct impact on the heritage assets from waste management activities as a result of the sites and policies within the Waste DPD. Heritage issues have been factored into the site selection process and SA. There is national and local policy in place to protect areas of heritage value.

Current Focus of Waste Management Activity in the Sub-region

2.22 Whilst many small scale local waste management facilities are relatively widespread across the sub-region within existing business areas, industrial estates or the Port Estate, current waste-related activities have tended to focus in the following broad areas:

- In Halton, the Widnes waterfront is identified as a key area for regeneration. This fits well with the existing pattern of waste activity which is focused around the Widnes Industrial Estates and waterfront, but there are major energy users located on both sides of the river.
- Most of the current waste activity in Knowsley is focused around Knowsley Industrial Park to the north, and Huyton Business Park which sits at the junction of the M62/M57 motorways.
- Waste activities in Liverpool are largely focused around the dockland areas to the north of the city centre, but some small clusters of activity exist in other employment areas, particularly Gillmoss, which is a strategic location for Merseyside Waste Disposal Authority, as well as Garston Industrial areas.
- Within Sefton, the majority of current waste activity is located in Bootle and the port area, although there are some strategic and small scale facilities which serve Southport and other towns to the north of the district.



- Historically, many of Merseyside's landfill sites have been located in St.Helens. Existing built waste management facilities are concentrated in central St.Helens and Earlestown.
- In Wirral, most of the current waste-related activities are focused around the industrial dockland areas by the River Mersey, in Wallasey and Birkenhead. Other smaller scale facilities serve local needs across the district, with a small cluster at Tarran Industrial Estate in Moreton.

Progress with Local Development Frameworks in the Merseyside and Halton

2.23 Sub-regional plans such as the Waste DPD must be consistent with national and regional policy. It must contribute to achieving the goals of the Waste Strategy for England and the Regional Spatial Strategy (RSS) for the North West whilst dealing with local priorities. The Coalition Government intends to abolish RSS through the implementation of the Localism Bill. However, it is still not clear when the Localism Bill will be introduced, and RSS was still extant at the time of producing the Publication Version. The North West region was preparing a single Regional Strategy, and had produced a significant amount of supporting evidence. It is understood that this evidence can still be used to support LDFs, post introduction of the Localism Bill, and the waste-related evidence has been used to support the needs assessment and policy positions in this Waste DPD. The Waste DPD covers the issues addressed by the RSS, and therefore, will still be relevant when RSS is finally abolished.

2.24 Halton Council consulted on its Core Strategy Publication Development Plan Document in November 2010. The Publication document was submitted to the Secretary of State in May 2011 with adoption anticipated in early 2012. The focus for regeneration is at the 3MG site in Ditton, West Runcorn and South Widnes.

2.25 Knowsley Council is in the process of developing its Core Strategy, and consulted on its Preferred Options report during Summer 2011. The focus for economic and employment regeneration remains within Knowsley Industrial and Business Parks, Huyton Business Park and South Prescot.

2.26 Liverpool Council consulted on the Preferred Options for its Core Strategy DPD in February 2010. Inner north Liverpool remains an area for significant growth and development, especially the area defined as the Atlantic Gateway Strategic Investment Area (SIA), where there remain significant areas of vacant, former industrial land and buildings with low grade uses set in a poor environment.

2.27 Sefton Council is in the early stages of developing its Core Strategy Development Plan Document, and consulted on its Core Strategy Options Report during Summer 2011. Economic and employment activity will continue to be focused in primarily industrial areas and other strategic sites.

2.28 St.Helens Council submitted its Core Strategy Publication Document in June 2011. This indicated that the focus for new economic development will be Haydock and the town centre. The former Parkside Colliery is identified as a site for a strategic regional Inter-modal Freight Park. Construction of a new rugby stadium is underway, and work has also commenced on urban villages at Lea Green Colliery, Moss Nook and Vulcan Works.

2.29 Wirral Council published the Preferred Options Report for its Core Strategy DPD consultation in November 2010. A Draft Core Strategy is expected to be approved for consultation towards the end of 2011, with a target date for adoption of late 2012. Much of Wirral's regeneration activities will focus around the long term development at Wirral Waters, and associated development around the dock areas.

Current Waste Management Planning Policy

2.30 Halton, Knowsley, Liverpool, St.Helens, Sefton and Wirral Councils all have a number of waste policies within existing UDPs, which will be replaced entirely once the Waste DPD is adopted. Most of these policies have been saved by the Secretary of State to enable their continued use until DPD policies come into force. The number, detail and effectiveness of the policies varies from district to district which is one of the reasons why a sub-regional Waste DPD is being produced. The policies which will be replaced once the Waste DPD is adopted are shown in the following table.



Table 2.1 Existing 'Saved' Waste UDP Policies which will be Replaced by Waste DPD Policies upon Adoption

| District | Waste Policy Reference | Date UDP Adopted | Waste Policies Saved |
|-----------|--|--------------------|--|
| Halton | MW2, MW3, MW6, MW7, MW8, MW9, MW10, MW11, MW12, MW13, MW14, MW15, MW16, MW17, MW18 | 7th April 2005 | Saved by Secretary of State (SoS) Direction beyond 6th April 2009 |
| Knowsley | MW4, MW5, MW6 | June 2006 | SoS Direction has indicated that all waste policies saved beyond June 2009 |
| Liverpool | EP3, EP4, EP5, EP6, EP7, EP8, EP9, EP10 | 13th November 2002 | Liverpool City Council saved all UDP policies in 2007 (except for 4 non waste policies). |
| St.Helens | WD1, WD2 (Policies WD3 & S11 deleted) | 2nd July 1998 | Saved for 3 years from 27th September 2007 |
| Sefton | EMW1, EMW2, EMW4, EMW5, EMW6, EMW7, EMW8, EMW9 | 29th June 2006 | All policies saved beyond June 2009 |
| Wirral | WMT1, WMT2, WM1, WM2, WM3, WM4, WM5, WM6, WM7, WM8, WM9, WM10 | February 2000 | Only WMT1 and WM10 did not remain in force beyond 27th September 2007. |

Merseyside Waste Disposal Authority and the Joint Municipal Waste Management Strategy

2.31 Merseyside Waste Disposal Authority (MWDA) is responsible for arranging for the disposal and recycling of household waste which is collected by the individual districts of Merseyside. It also provides 14 Household Waste Recycling Centres throughout Merseyside. MWDA operates its activities through three procurement contracts, as follows:

- Recycling Contract;
- Interim Landfill Contract;
- Resource Recovery Contract.

2.32 The recycling contract is held by Veolia Environmental Services and procures recycling activity including operation of the HWRCs, WTSs and MRFs. The activities at these sites has been taken into account in the Needs Assessment, as have recently consented operations, such as the MRF at Gillmoss which is due to become operational later in 2011. The interim landfill contract was awarded to WRG and procures landfill capacity at the WRG site at Arpley Landfill in Warrington. This has been counted as local capacity within the Needs Assessment as it is contracted. The Resource Recovery Contract falls under the Private Finance Initiative with £90M secured from the Government for this purpose. MWDA announced in 2010, that the two final bidders for the contract are Covanta and Sita. Covanta intend to build an Energy from Waste (EfW) facility at the Resource Recovery Park at Ince, Cheshire which will handle the waste from this contract and others. Sita intend to use an EfW facility in Teeside for this purpose, and is currently exploring waste transfer stations associated with railheads. The final timetable for letting this contract is not yet decided.

2.33 MWDA is currently in the process of reviewing its Joint Municipal Waste Management Strategy (JMWMS). It consulted on the Draft JMWMS during Summer 2011. The JMWMS takes account of the activities of the recycling contract, but does not cover dealing with residual waste as this is covered by either the Landfill or the Resource Recovery contracts referred to in 3.32 above.



2.2 Updating the Needs Assessment, Capacity Gaps and Site Requirements

2.34 The evidence base⁶ and needs assessment has been updated several times during the process of developing the Waste DPD, and has enabled refinement of the capacity⁶ figures and number of sites required.

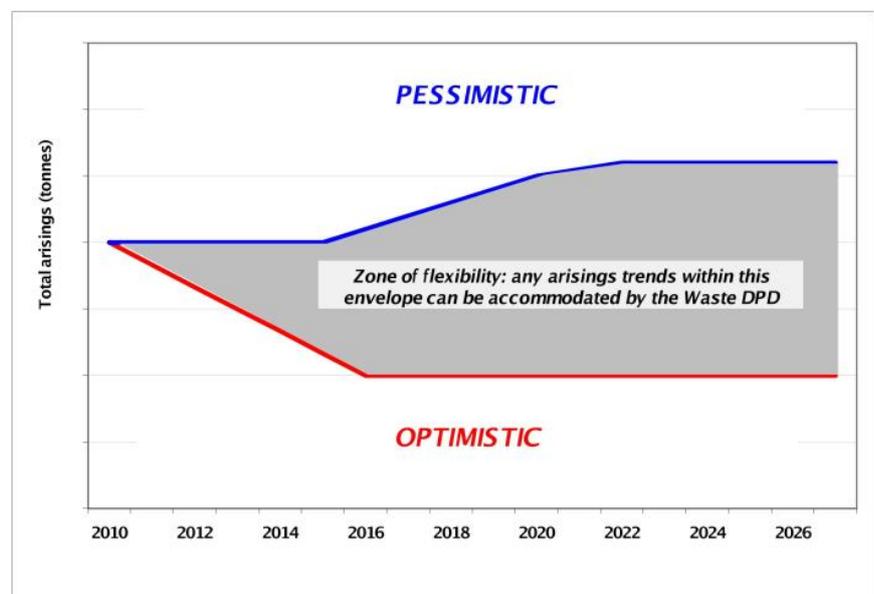
2.35 The process of forecasting waste capacity needs and therefore the number of sites required is complex and influenced by a number of factors including:

- Continuing legislative and other change which have the scope to affect waste management in the way the landfill tax accelerator has done since 2006;
- Incomplete data about arisings, capacity, etc. which mean we have imperfect knowledge of how the waste sector operates;
- Uncertainty about the future availability of landfill capacity as many of the North West's largest sites are near the end of their consented periods and there is no guarantee that extensions will be granted;
- The limited scope of the planning system to influence the activities and priorities of the commercial waste sector which accounts for the majority of waste management functions in Merseyside, Halton and the rest of the North West;
- Effects of sustainable consumption and production initiatives, particularly in terms of reducing waste creation, which will start to have an increased effect in the first 5 years of the adopted Waste DPD.
- Effects of recession on business output and household budgets, in terms of their immediate effect on waste arisings, together with uncertainty about when a recovery might begin and what it will do to waste arisings; and,
- Effects of recession on the ability of waste companies to secure the investment needed to build treatment and recycling facilities and its effect on the phasing of delivery of new capacity.

Figure 2.1 Envelope of uncertainty

2.36 In the light of these uncertainties it would be inappropriate to plan capacity and site requirements on a single 'best estimate' which is both inflexible and which might be invalidated by a significant change to any one, or a combination, of the factors listed above. Instead the needs assessment predicts an 'envelope' of waste management needs. For each of the four principal waste streams:

- An upper bound forecast (referred to as '*pessimistic*') assumes the maximum realistic growth rate we might expect for each stream. It represents a greater waste challenge because larger tonnages of waste need to be managed. It also assumes lower rates of recycling and treatment and therefore a greater reliance on landfill capacity which is both locally scarce and an unsustainable waste management option. Whereas;
- A lower bound ('*optimistic*') forecast assumes, in most cases, a gentle drop in arisings over at least the first half of the current decade due to the combined effect of recession and waste minimisation initiatives identified. It assumes all recently consented facilities will enter service in line with current information about the phasing of delivery of new capacity; and that higher but not over-ambitious rates of recycling and landfill diversion will be achieved.





2.37 This approach enables the Waste DPD to be flexible and that it has the scope to accommodate unforeseen changes. The '*optimistic*' forecast therefore represents the desirable outcome of implementing its Vision and Strategic Objectives, while the '*pessimistic*' forecast represents a "Plan B" which identifies what the Waste DPD may need to deliver if things do not go according to plan. Any future combination of circumstances which results in waste arisings growth between the '*optimistic*' and '*pessimistic*' bounds can therefore be accommodated by the Waste DPD – this is the '*Zone of Flexibility*' referred to in Figure 2.1.

2.38 The dates and sources of the data which this assessment draws are summarised in Table 2.1:

Table 2.2 Date and Source of Data

| Stream | Date | Source | Released |
|--------------------|-----------|--|---------------|
| Municipal | 2009/2010 | Defra | November 2010 |
| Commercial | 2009 | Environment Agency North West | March 2010 |
| Industrial | | | |
| Construction, etc. | 2006 | North West Regional Technical Advisory Body (RTAB) | July 2007 |
| Hazardous | 2009 | Environment Agency | January 2011 |

2.39 The evidence base takes 2010 as the base year for forecasts and is based on the most recent data in all cases. Due to its age, assumptions about management of construction wastes has been updated with reference to a more recent report issued by WRAP (2008 data) and as a result of discussions with representatives of the local waste management sector.

2.40 One final, key assumption is the approach taken to assessing capacity. Any management capacity that has received planning consent is included in the assessment, even where work has yet to start on building the facility. This is referred to as 'pipeline' capacity and has been monitored in the following ways:

- In addition to industry liaison meetings, such as the Waste DPD Technical Advisory Group (TAG), periodic meetings with the relevant consent-holders have been held to ensure the most up-to-date assessment about the phasing of delivery of this capacity is used;
- Where the consent-holder already has contracts in place (or at an advance stage of negotiation) to manage wastes from outside Merseyside and Halton (eg. the Ineos Chlor facility at Runcorn) the long-term capacity available is reduced proportionally in the needs assessment model.

2.41 The Needs Assessment report which was finalised in June 2011 is presented in support of the Publication Waste DPD. It summarises the approach, principal assumptions and conclusions. The Needs Assessment report prepared at the Preferred Options stage is also available as a supporting document and provides some additional detail on the approach taken and assumptions used, though the forecasts it contains have been superseded by those based on the newer data referred to above.

2.3 Summary of Needs Assessment

Local Authority Collected Waste

2.42 The term Local Authority Collected Waste⁶ (LACW, previously known as Municipal Solid Waste or MSW) is generally used in this report but references to MSW will be found in some figures, tables etc. The new term Local Authority Collected Waste was introduced in order to align UK terminology with that required by the EU Waste Framework Directive. All detail in this section refers to LACW originating in Merseyside and Halton which is managed in accordance with the Joint Municipal Waste Management Strategy (JMWMS)⁶ by District Waste Collection Authorities and Merseyside Waste Disposal Authority (MWDA). Halton has a separate Waste Management Strategy but its work is integrated with the rest of Merseyside and Halton's and its Waste Disposal Authority is a member of the Merseyside Waste Partnership.



How much waste will we have to manage?

2.43 Over the past decade the annual growth rate in LACW arisings has decreased steadily:

- 2000-2005/6: 3% to begin with but falling to around 1% by the end of this period;
- 2006/7-2008/9 (3 years): a small fall in arisings, followed by another 1% increase and then a second 2% fall;
- 2009/10: a 4% drop - this is more significant because it is the first time that arisings have fallen in consecutive years.

2.44 It is not possible to identify how much of the recent fall has resulted from waste minimisation initiatives, and how much reflects decreased household spending as a result of the recession. Fluctuation in arisings in the recent past suggests it is not appropriate to project straight line growth. Also, the recent fall in arisings in successive years suggests that the needs assessment must consider a decline in arisings.

2.45 The pessimistic forecast is adapted from the growth rates stated in the current JMWMS for Merseyside and Halton. These rates have been adjusted slightly to reflect the effects of recession in the period to 2015, a short recovery thereafter and are virtually identical waste arisings to those forecast by the JMWMS from 2020 onwards. This is consistent with the adopted Strategy which is being reviewed at the time this final Needs Assessment was completed.

2.46 The lower bound (red) forecast (see Figure 2.2) is based on assuming the estimated level of collected waste per household in Merseyside and Halton at 2010 falls to the corresponding national average (for England) by 2020. Thereafter the figure remains constant. However, the forecast is adjusted to take account of extra waste generated by new households added over the plan period based on the levels required by the North West Regional Spatial Strategy and the successful housing growth-point bids made by districts within the sub-region. Although the Localism Bill will result in the RSS being abolished the figures represent the best forecast of housing growth on which to base this assessment.

2.47 Table 2.2 sets out the forecast of municipal waste arisings at five yearly intervals.

Table 2.3 Comparison of Forecast Local Authority Collected Waste Arisings under Different Growth Scenarios

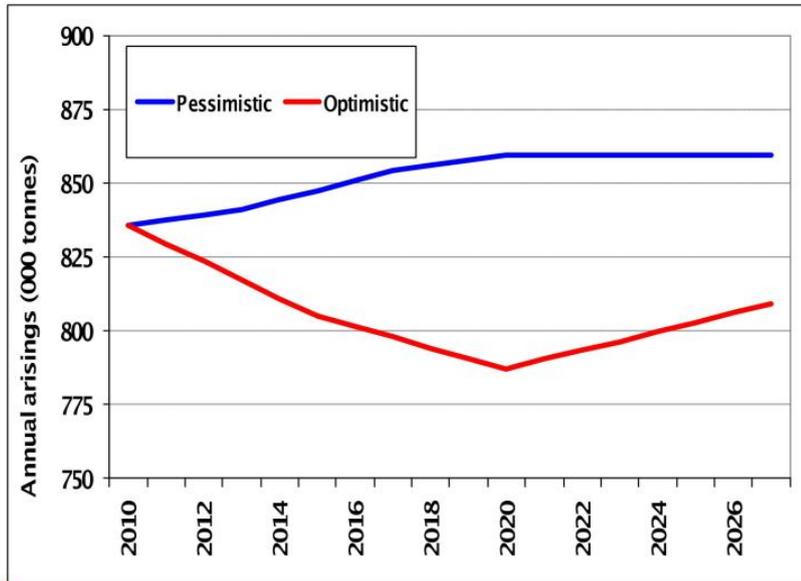
| All figures are in thousands of tonnes [Source: Merseyside EAS] | | | | | |
|---|------|------|------|------|------|
| Scenario | 2010 | 2015 | 2020 | 2025 | 2030 |
| Pessimistic (Short recession) | 836 | 848 | 860 | 860 | 860 |
| Optimistic (Waste reduction) | 836 | 805 | 787 | 803 | 819 |

2.48 Table 2.2 shows that this means a difference between the two forecasts which is at its greatest at 2020 (88,000 tonnes) but the gap closes to around 50,000 tonnes by the end of the plan period in 2027 as a result of an increase in the number of households.

2.49 The forecast envelope for LACW is shown in Figure 2.2 and is based on the two solid-line trends for the upper bound ('pessimistic' - solid blue) and lower bound ('optimistic' - red).



Figure 2.2 MSW growth forecast



Halton.

2.51 In addition to the facilities directly operated or contracted by MWDA, a number of open windrow composting⁶ facilities are operated on a merchant basis which handle both LACW and commercially collected green waste. Recyclable material derived from the MRFs and HWRCs is sent to a wide variety of re-processors⁶ who also operate on a merchant basis.

Capacity Gap Implications for LACW

2.52 Once the RRC PFI contract has been awarded, most residual⁶ waste will be managed through the RRC. The revised JMWMS indicates a small amount of residual waste will continue to go to landfill and this is included in the capacity need referred to later in this section, but there will be no capacity gap for residual waste requiring treatment.

2.53 However a key forthcoming issue is that it is difficult to see how individual districts can meet the national 2020 target to recycle or compost 50% of household wastes without collecting food wastes and new facilities will be needed to handle this material.

2.54 In order to meet ongoing recycling, composting and landfill diversion targets set out in the 2011 revisions of both the JMWMS and Waste Strategy for England, MWDA is forecast to need an additional MRF and up to three food waste composting facilities, although some of this capacity could be managed for both LACW and commercial wastes. The forecast capacity gaps and phasing of these requirements is shown in Figures 2.8 and 2.9.

Commercial & Industrial Waste

How much waste will we have to manage?

2.55 The growth trends for the commercial & industrial waste streams over the last 10 years are very different. Commercial wastes have risen at a rate of around 2% annually while industrial wastes have declined at almost double this rate. These trends are believed to reflect the re-structured sub-regional economy which is increasingly dominated by the service sector while heavy industry and manufacturing have declined. The latter cannot continue indefinitely but, equally, commercial activity will be affected by a greater reliance on electronic business, reducing physical waste, and by the current recession.

Commercial Wastes

How Much Capacity for Managing Local Authority Collected Waste Do We Have?

2.50 Merseyside Waste Disposal Authority (MWDA) is managing LACW through three main contracts. Recycling contract - this was awarded to Veolia in 2008, and involves operation and management of 14 Household Waste Recycling Centres (HWRCs), 4 waste transfer stations (WTS) and 2 Materials Recycling Facilities (MRFs). Interim landfill contract - this was awarded to WRG also in 2008. Waste is currently exported to Arpley Landfill in Warrington under contract until 2015, after which most residual waste will be diverted from landfill via the Resource Recovery Contract (RRC). The RRC is currently planned to be awarded in 2012, and will deal with waste in both Merseyside and



2.56 The size, composition and management methods for both waste streams were surveyed in 2006 and 2009 with results available for Merseyside and Halton separately, though they are amalgamated here. The most recent data suggests that commercial wastes still grew at almost 2% annually between 2006 and 2009 even though the economy was in recession for almost half of this period. Following discussion with the local waste management sector through the Waste DPD Technical Advisory Group (TAG), it was concluded that this apparent rate could not be used as the basis for forecasting the base forecast growth as it was considered too optimistic for either the optimistic or pessimistic scenario in the short-term. The TAG also advised that:

- Recovery from recession is unlikely to start before 2015;
- The forecast needs to reflect the effect of extension of the Courtauld Agreement, the Producer Responsibility Regulations, etc. on waste creation rates. This is likely to result in a reduction in arisings over part of the period until 2020. The optimistic scenario forecasts that these effects will last longer and the eventual increase in arisings as a result of economy recovery will be shallower than that assumed for the pessimistic scenario.

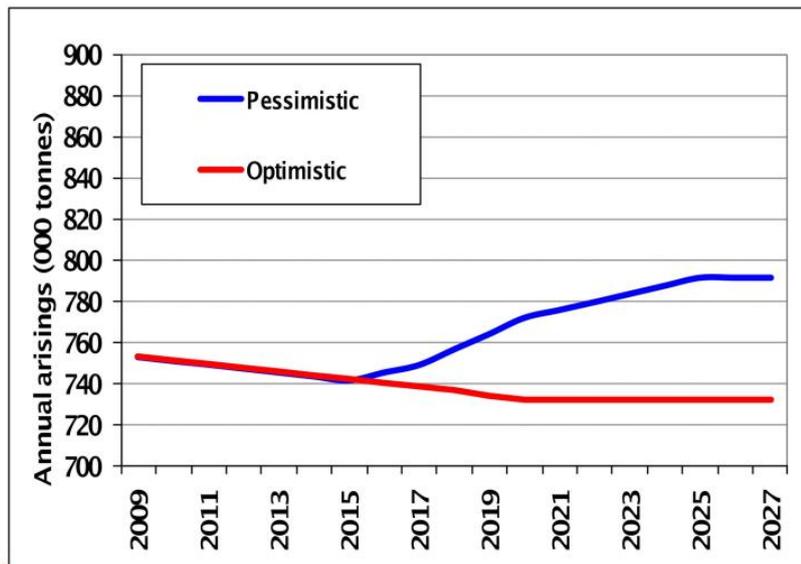
2.57 It was also recognised that Merseyside and Halton has a higher than average level of employment in the public sector, which is undergoing significant reduction in scale, budgets and employment. As that sector contributes a substantial proportion of “commercial” wastes these effects will also depress arisings growth in both scenarios.

2.58 Table 2.3 sets out the forecast of Commercial Waste arisings at five yearly intervals for both the optimistic and pessimistic scenarios. The optimistic scenario shows a reduction in commercial waste arisings over the plan period with the pessimistic scenario showing a decline and then an increase in arisings.

Table 2.4 Comparison of Forecast Arisings under Different Growth Scenarios for Commercial Waste

| All figures in thousand of tonnes [source Merseyside EAS] | | | | | |
|---|------|------|------|------|------|
| Scenario | 2010 | 2015 | 2020 | 2025 | 2030 |
| Pessimistic (recession/rebound) | 751 | 742 | 772 | 791 | 791 |
| Optimistic (waste reduction) | 751 | 742 | 733 | 733 | 733 |

Figure 2.3 Commercial Waste growth forecast



2.59 Industrial Wastes

2.60 As stated previously, the 2009 survey results suggest industrial wastes continued to fall as the recession took hold rather than as a result of re-structuring of the regional economy. The needs assessment assumes that any further decline will end after 2013 because the rate of business closures or reduction of manufacturing capacity will have slowed or been replaced by corresponding new facilities which will generate some wastes. This trend is taken as the basis of the optimistic scenario though this might still be seen as conservative in that no overt account is taken of the additional effect of waste minimisation.

2.61 The recent historical fall in industrial wastes creates difficulties for defining the pessimistic scenario. Following discussion with representatives of the local waste management sector

it was concluded that the forecast envelope would not offer sufficient flexibility if it also assumed some decline, and is implausible that a future increase in arisings would occur. Therefore the pessimistic scenario assumes that no further change in industrial waste arisings occurs.

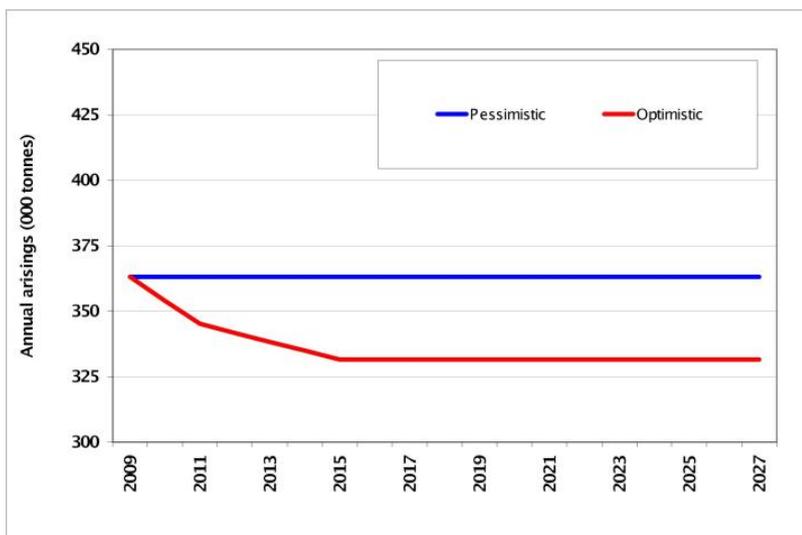
2.62 Table 2.4 shows the forecast of industrial arisings for both optimistic and pessimistic scenarios.

Table 2.5 Comparison of Forecast Arisings under Different Growth Scenarios for Industrial Waste

| All figures in thousand of tonnes [source Merseyside EAS] | | | | | |
|---|------|------|------|------|------|
| Scenario | 2010 | 2015 | 2020 | 2025 | 2030 |
| Pessimistic (zero growth) | 363 | 363 | 363 | 363 | 363 |
| Optimistic (short recession) | 354 | 331 | 331 | 331 | 331 |

2.63 This is illustrated in figure 2.4.

Figure 2.4 Industrial waste forecast



How Much Existing Capacity for Managing Commercial & Industrial Waste Do We Have?

2.64 Merseyside and Halton are well served by MRFs⁶ and WTSs⁶, although these are generally on a smaller scale than those operated by MWDA. There are a number of privately operated open windrow composting facilities and a plethora of re-processors which serve both the commercial and industrial sectors, as well as taking municipal wastes. The sub-region's sole existing primary treatment facility for handling mixed residual waste (Orchid Environmental in Huyton) closed in Summer 2011, however there are existing permissions for four other plants, each of which has a capacity of 135,000 tonnes per annum, or greater.

2.65 Merseyside and Halton also have a substantial capacity for thermal treatment with more than 1,500,000 te per annum provided by four facilities. More than half of this capacity is provided by Ineos Chlor's plant at Runcorn (Halton) which was at a moderately advanced stage of construction at the time the needs assessment was completed. However half of the planned capacity is already earmarked to manage wastes originating in Greater Manchester and Cheshire, although this still leaves close to 400,000 te of capacity uncontracted.

2.66 At the time the Needs Assessment was completed work was yet to begin preparing the sites for the other three facilities, however meetings have been held periodically with the site operators to keep up to date on plans in terms of when capacity will be available and how much might be available to manage wastes from Merseyside and Halton.

2.67 There is non-inert landfill void space available at Lyme and Wood Pit Landfill until June 2012, after which its planning consent expires. At the time the Needs Assessment was completed, St.Helens Council was awaiting the site operator to submit proposals for managing the completion of the site and its restoration to a country park. However, as this information is outstanding the Needs Assessment cannot assume that the site will supply further void space after that date.

Capacity Gap Implications for Commercial and Industrial Wastes



2.68 The largest capacity shortfall for commercial and industrial wastes is for non-inert landfill. The capacity gap figures are shown in table 2.7, this includes only a small element of LACW in the form of incinerator bottom ash⁶ (IBA), counted in annual capacity figures post 2015. There is also a need for food waste composting facilities which could be shared for LACW and commercial requirements. There is also a marginal need for a small-scale thermal treatment facility to manage industrial waste and which might also contribute to local demand for energy and heat.

Construction, Demolition & Excavation Waste (CD&E)

How much CD&E Waste will we have to manage?

2.69 Historically this has been the most difficult waste stream to forecast accurately. National survey data suggests the waste industry is delivering good, sustainable management practices with about 50% of arisings recycled or re-used at source; around 12% spread on land for landscaping or other improvements; and a correspondingly low rate of landfill disposal. However one problem of this situation is that the quantity of waste recycled at source or spread on land is not recorded for waste management licensing purposes, making it difficult to monitor total waste arisings and any further improvement landfill diversion rates.

2.70 The 2006 regional survey of CD&E waste (NWR TAB July 2007) was compromised by a lack of data on waste arisings, and by other aspects of the data collection and analytical approach. Following various checks and adjustments, the need assessment has estimated around 2.4 million te of these wastes were created at that time. Subsequent growth projections have been based on discussion with representatives of the local waste management industry, specifically certain companies that principally handle inert construction wastes.

2.71 Both optimistic and pessimistic scenarios reflect their advice that this part of the waste industry began to contract rapidly as early as 2007, in contrast to the preceding part of that decade which had seen a major phase of regeneration and other projects and an annual increase in CD&E wastes of between 2% and 3% of an already very large total.

2.72 The local waste management industry has advised that there are few signs of any recovery in the near future; and offered a very conservative view that the sector is very unlikely to return to the levels of waste creation seen in the middle of the last decade. One influence specific to Merseyside is the prolonged effect of cuts to public sector expenditure which will affect urban regeneration projects - including those for housing and schools - that made a significant contribution to CD&E waste arisings before recession began.

2.73 The effect of major development proposals such as Wirral Waters, Liverpool Waters, and the second Mersey Crossing, will help to drive the level of arisings upwards in the longer term. However both of the dockland regeneration projects will have development timescales of 30-40 years due to their scale and phasing, and this is reflected in the assumption of a gentle increase in CD&E waste stream. It is also important to recognise that the needs assessment does not assume cessation of construction activity, but that it will be at a lower intensity than that before the recession began, and that it also reflects the effects of better management and re-use of arisings through Site Waste Management Plans and waste audits for smaller sites.

2.74 The pessimistic scenario assumes that these projects will result in a gentle but steady increase in arisings starting in 2013/4, reflecting the timelines proposed for the larger developments. It also assumes that this will persist through the rest of the plan period given the duration of these projects. The optimistic scenario is based on similar assumptions except that arisings will not begin to grow again for a further two years and the rate of growth will be lower. In both cases the total arisings predicted for the end of the plan period are still below that estimated from the 2006 regional survey, reflecting the local waste industry's advice as well as recent market and economic conditions.

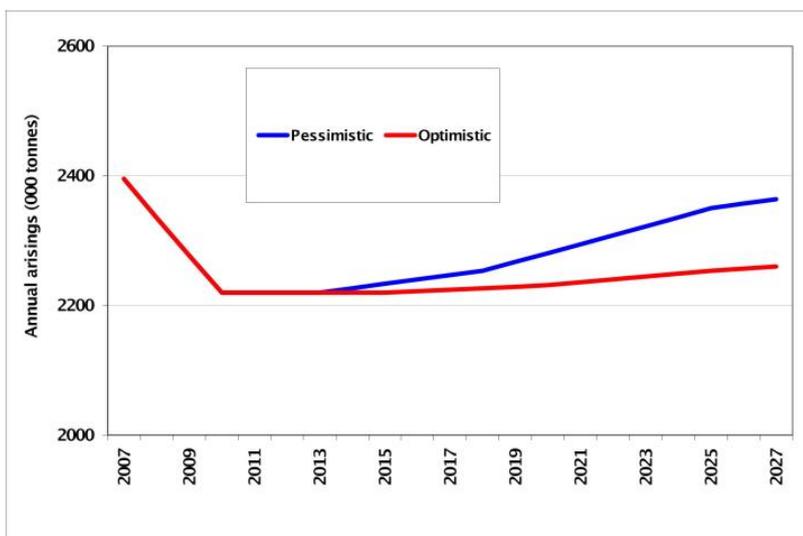
2.75 Table 2.5. sets out the forecast for CD&E waste arisings at five yearly intervals for the Plan period. The final column shows the effect of taking a more conservative view of long-term growth prospects on future arisings, which has been informed through local waste industry liaison. Neither scenario assumes arisings will rise above the pre-recession level of around 2.4 million te.

Table 2.6 Comparison of Forecast Arisings under Different Growth Scenarios for CDE Waste

| All figures are in thousands of tonnes [Source: Merseyside EAS] | | | | | |
|---|------|------|------|------|------|
| Scenario | 2010 | 2015 | 2020 | 2025 | 2030 |
| Pessimistic (shorter recession) | 2220 | 2233 | 2280 | 2336 | 2385 |
| Optimistic (deeper recession) | 2220 | 2220 | 2231 | 2253 | 2270 |

2.76 This is illustrated in Figure 2.5 which shows the forecast envelope for CD&E wastes. The limited spread of the two bounds reflects feedback that was received from the local waste sector that arisings are unlikely to exceed pre-recession levels for the reasons stated above.

Figure 2.5 CDE waste forecast



How Much Existing Capacity For Managing CDE Waste Do We Have?

2.77 There are over 60 transfer stations with combined capacity of about 1,290,000 tonnes. Some of these deal only with CD&E wastes. There are a further 3 sites located in Simonswood Industrial Estate, West Lancashire, which are known to receive waste from Merseyside, but whose capacity has not been included in the Needs Assessment.

2.78 The non-inert fraction of CD&E waste such as insulation materials, uPVC etc. requires non-inert landfill capacity which is still available at Lyme and Wood Pit Landfill. Some inert waste may also be deposited at non-inert landfill as daily cover, for landfill engineering purposes, or to fill void space⁶ where excess void space exists.

2.79 There are two sites with consent to receive inert waste both existing mineral sites overlying major aquifers. The total void space available is approximately 3.5 million m³, but this depends on continuing mineral extraction at both sites.

Capacity Gap Implications for CD&E Waste

2.80 The only implications for capacity relate to landfill. From an inert landfill perspective this relates to rate of mineral extraction. For the non-inert fraction of CD&E waste, this relies on non-inert landfill once all material that can be recycled or recovered has been exhausted

Hazardous Waste

2.81 A different approach has to be adopted for these materials because the hazardous waste management sector is organised to provide a regional and national network of facilities, whereas capacity for the other streams is largely provided by each sub-region, or sometimes by larger regionally significant facilities. This results in a large proportion of locally produced hazardous waste leaving Merseyside and Halton because the specialised facilities need to recycle, treat or dispose of it exist elsewhere in the country. However this is balanced by a



corresponding movement of a large quantity of hazardous wastes into the sub-region to those specialised facilities that exist locally. The waste management need is therefore the sum of locally-arising wastes that remain in the sub-region plus those that are imported.

2.82 Note also that the arisings totals for the other main waste streams have been reduced to take account of the hazardous proportion of each of them in order to eliminate the risk of double-counting around 160,000 te of these materials.

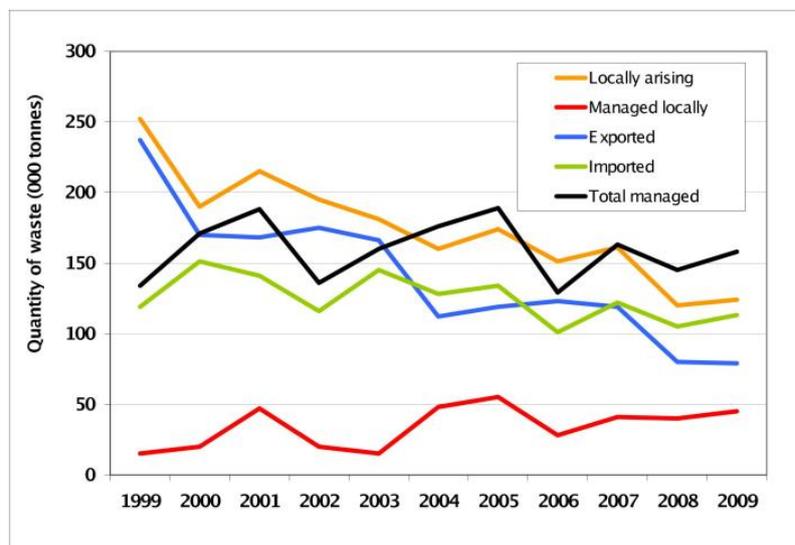
How Much Hazardous Waste Will We Have to Manage?

2.83 Again, the approach adopted here is slightly different to the other streams because the management need must reflect the relative proportions of locally managed arisings, imports and exports, and the trends in each.

2.84 In 2004/5 there were a series of significant regulatory changes to the definition of hazardous wastes and how they should be managed. While these changes caused some problems with the quality of data, they had limited effect on the medium-term trends. These are summarised in Figure 2.6 and were already somewhat erratic, with marked changes from year to year. Nevertheless there are clear trends of falling quantities in all of them apart from the amount of waste that arises and is managed locally, which has risen slightly over the last decade.

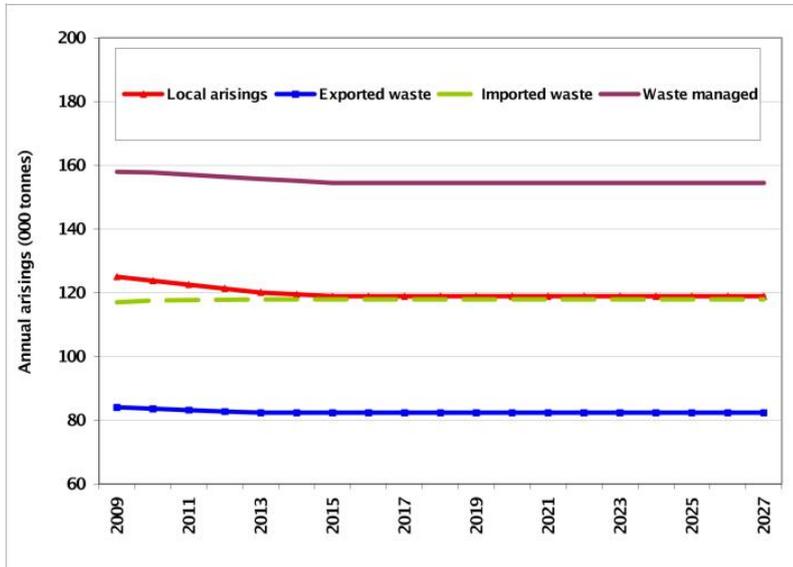
2.85 This has led us to adopt a forecast with limited further change in all the elements of the management need, and to consider there is little need to model separate pessimistic and optimistic forecasts.

Figure 2.6 Historical trends in arisings of hazardous waste



2.86 Figure 2.6 illustrates the main assumption of slight further reduction in local arisings and therefore the quantity of waste that is exported. With little change to the quantity that is imported, the total management need falls only slightly from 158,000 te in 2010 to 154,000 te by 2015 and thereafter. Meanwhile Figure 2.7 extends the rather erratic recent 'history' as a series of smoother trends which assume the relative quantities of local arisings, exports and imports do not change after 2015. This approach assumes that the legislative changes designed to reduce use of hazardous materials in products and components will have taken around 10 years to complete their effect.

Figure 2.7 Hazardous waste arisings forecast



How Much Capacity for Managing Hazardous Waste Do We Have?

2.87 There are a number of hazardous waste transfer stations with a combined capacity of 425,000 te annually including tank cleaning and similar wastes and handling clinical/health care wastes. There are also a number of re-processors specialising in hazardous waste with approximately two thirds of the 735,000 te of annual capacity provided by three facilities which recover waste oils & solvents shipped from all over the UK. The only hazardous waste landfill is Ineos Chlor's Randle Island site, which primarily takes waste from the company owned plants, but is now functioning as a merchant facility. This site has an annual capacity of 220,000 te.

2.88 In addition to the landfill site above, hazardous waste originating in Merseyside and Halton is currently taken to three other regionally/nationally significant facilities:

- Whitemoss Landfill, Skemersdale (West Lancashire);
- Hazardous Waste Incinerator at Ellesmere Port (Cheshire West);
- Minosus deep, long-term storage facility, Winsford (Cheshire West).

Managing Other Controlled Wastes

Agricultural Wastes

2.89 Merseyside EAS estimated the quantity of agricultural wastes at 19,000 tonnes, based on results of a sub-regional survey undertaken in early 2007. This estimate is based on a bottom-up survey and there is reason to expect it is reasonably accurate as it is based on responses from farm holdings which represent almost 20% of the agricultural land in Merseyside and Halton.

2.90 The survey shows that less than 10% of wastes are "non-natural", such as plastics, silage wrap, machinery, waste oils, and pesticides. The rest was straw or organic slurry of some form, all of which is disposed at source, normally by land spreading or a similar activity.

2.91 The quantity of "non-natural" wastes is therefore an extremely small proportion of total controlled wastes created in the sub-region and the examples above show that the materials are diverse and will need to be managed and disposed in a variety of ways. Given the wastes will also be of low value and arisings will be scattered in small quantities across the sub-region, it appears unlikely that developing a special central facility to handle such small quantities of waste would be economically viable.

2.92 The Waste DPD therefore takes the position that some of these wastes, such as oils, could be managed in existing waste management facilities, and that any proposal to develop a centralized facility to handle other materials would come through the planning system on an unallocated site that would be evaluated using appropriate policies in the Waste DPD.

2.93 Consequently the Needs Assessment did not review agricultural waste arisings in further detail or make specific provision for locations to manage such a small quantity of diverse residual waste, as this can be managed with other C&I waste.

Radioactive Wastes



2.94 The quantity of low and very low level radioactive waste has been estimated from radioactive waste arisings data provided by the Environment Agency for 2006. The analysis indicated arisings (actually disposals) of waste totalling 3,260 Becquerels, however it has not been possible to convert this into a corresponding tonnage which needs to be managed.

2.95 Low and very-low level wastes are primarily material from clinical treatment (eg. x-ray plates, etc.) and associated machinery although the records do not allow estimation of the materials involved. Virtually all the material (>99%) is generated by hospitals with the remainder created by industry (0.4%) and academic facilities (0.1%).

2.96 Currently, all of the material is disposed along with other non-hazardous materials, with virtually all the waste (99.7%) being disposed to sewer, with minute quantities sent to a hazardous waste site for incineration or burial.

2.97 As only very small quantities are involved and in the light of the way they are currently regulated and disposed, and it is reasonable to assume that the level of arisings will remain roughly constant throughout the plan period, and there is little reason to suspect legislative changes or economic conditions will cause any significant change to these quantities. Therefore it is not evident that new methods for disposing of these materials will require extra capacity or land for facilities and therefore they are not considered in further detail by the Needs Assessment or the Waste DPD.

2.98 Waste Water Treatment Wastes

2.99 Responsibility for managing water treatment wastes lies with the regional water company, United Utilities (UU), which operates a network of treatment works. The Waste DPD has a supporting role to identify suitable locations for additional infrastructure to enable the company to discharge its responsibilities. However, contact with the company, including its representations to consultations as the Waste DPD was being prepared, have not identified a need for new sites. Therefore the needs assessment and the site allocations do not provide for additional locations.

2.100 However, UU also operate a sewage sludge incinerator at Shell Green, Widnes, which is regionally-significant for the Mersey Belt as it receives waste material from water treatment works in Merseyside and Halton, and by pipeline from Greater Manchester.

2.4 Implications : Sites requirements

Adjusted Site Requirements and Contingencies for Built Facilities

2.101 Figure 2.8 summarises the principal mass balance quantities output forecast for the optimistic scenario, and Figure 2.9 shows the corresponding output for the pessimistic scenario. The figures in black are the capacity gap, not the forecast arisings, any shortfall is shown in red. The figures shown are the result of subtracting the estimated available capacity (from facilities already in service or under development) from the forecasting quantity of arisings that will have to be managed to estimate how much extra capacity will be needed. They also reflect other assumptions about how each waste stream will be managed in the future, including improvements in recycling and re-use, and a reduction in how much is disposed to landfill.



Figure 2.8 Site Requirements - Optimistic Forecast (all data in 000s tonnes)

| Waste managed Stream | Capacity gap forecast | | | | | Facility type | Cap'y (kte) | Facility forecast | | | | | Land Ha./site | Σ Ha. |
|-------------------------|-----------------------|------|------|------|------|--|-------------|-------------------|------|------|------|------|---------------|-------|
| | 2010 | 2015 | 2020 | 2025 | 2030 | | | 2010 | 2015 | 2020 | 2025 | 2030 | | |
| MSW only | -42 | 26 | 18 | 14 | 10 | Waste transfer & sorting: MRF | 100 | 1 | 0 | 0 | 0 | 0 | 3 | 3 |
| | 174 | 185 | 195 | 194 | 193 | Waste transfer & sorting: HWRC | 15 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 707 | 1006 | 1134 | 1134 | 1134 | Waste transfer & sorting : municipal non-inert WTS | 200 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 |
| Commercial only | 0 | 0 | 0 | 0 | 0 | Pre-treatment (mixed wastes): MBT, etc. | 150 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| | 482 | 411 | 397 | 392 | 387 | Re-processor: dry recyclables | 200 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 |
| | 63 | 189 | 117 | 117 | 117 | Pre-treatment (mixed wastes): MBT, etc. | 150 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| MSW & commercial | 94 | 70 | 48 | 48 | 48 | Pre-treatment (other wastes): specialised facilities | 150 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| | -37 | -116 | -152 | -154 | -156 | Pre-treatment (food wastes): AD or IVC | 50 | 1 | 2 | 1 | 0 | 0 | 1 | 5 |
| | 0 | 99 | 16 | 8 | 0 | Thermal treatment: MSW | 475 | 0 | 0 | 0 | 0 | 0 | 7.5 | 0 |
| Commercial & industrial | 0 | 720 | 828 | 828 | 828 | Thermal treatment: non-municipal waste | 200 | 0 | 0 | 0 | 0 | 0 | 7.5 | 0 |
| | 247 | 220 | 217 | 217 | 217 | Waste transfer & sorting: merchant non-inert WTS | 75 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| | 132 | 139 | 137 | 137 | 137 | Re-processor: specialist materials | 100 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Industrial only | 46 | 22 | -1 | -1 | -1 | Pre-treatment (other wastes): specialised facilities | 150 | 0 | 0 | 1 | 0 | 0 | 3 | 3 |
| | 11 | 11 | 11 | 11 | 11 | Secondary treatment: specialised EFW | 50 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| CD&E | 817 | 670 | 602 | 583 | 574 | Waste transfer & sorting: merchant inert WTS | 200 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 |
| Hazardous | 247 | 250 | 250 | 250 | 250 | Hazardous waste treatment | 100 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 4 | 14 | 21 | 19 | 18 | Open windrow composting | 25 | 0 | 0 | 0 | 0 | 0 | 2.5 | 0 |



Figure 2.9 Site Requirements - Pessimistic Forecast (all data in 000s tonnes)

| Waste managed Stream | Capacity gap forecast | | | | | Facility type | Cap'y (kte) | Facility forecast | | | | | Land Ha./site | Σ Ha. |
|-------------------------|-----------------------|------|------|------|------|--|-------------|-------------------|------|------|------|------|---------------|-------|
| | 2010 | 2015 | 2020 | 2025 | 2030 | | | 2010 | 2015 | 2020 | 2025 | 2030 | | |
| MSW only | 54 | 29 | 16 | 16 | 16 | Waste transfer & sorting: MRF | 100 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| | 171 | 187 | 195 | 195 | 195 | Waste transfer & sorting: HWRC | 15 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 707 | 1006 | 1071 | 1115 | 1134 | Waste transfer & sorting : municipal non-inert WTS | 200 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 |
| Commercial only | 0 | 0 | 0 | 0 | 0 | Pre-treatment (mixed wastes): MBT, etc. | 150 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| | 475 | 420 | 393 | 385 | 385 | Re-processor: dry recyclables | 200 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 |
| | 0 | 205 | 179 | 177 | 177 | Pre-treatment (mixed wastes): MBT, etc. | 150 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| MSW & commercial | 94 | 70 | 60 | 59 | 59 | Pre-treatment (other wastes): specialised facilities | 150 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| | -37 | -141 | -152 | -153 | -153 | Food waste treatment (IVC, AD, etc.) | 50 | 1 | 2 | 1 | 0 | 0 | 1 | 5 |
| | 0 | 96 | 63 | 19 | 0 | Thermal treatment: municipal | 475 | 0 | 0 | 0 | 0 | 0 | 7.5 | 0 |
| Commercial & industrial | 0 | 720 | 878 | 875 | 875 | Thermal: non-municipal | 200 | 0 | 0 | 0 | 0 | 0 | 7.5 | 0 |
| | 243 | 203 | 177 | 166 | 166 | Waste transfer & sorting: merchant non-inert WTS | 75 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| | 128 | 122 | 112 | 108 | 108 | Re-processor: specialist materials | 100 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Industrial only | 48 | 19 | 10 | 10 | 10 | Pre-treatment (other wastes): specialised facilities | 150 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| | 11 | 11 | 11 | 11 | 11 | Secondary treatment: merchant EFW | 50 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| CD&E | 892 | 745 | 677 | 658 | 649 | Waste transfer & sorting: merchant inert WTS | 200 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 |
| Hazardous | 247 | 250 | 250 | 250 | 250 | Hazardous waste treatment | 100 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 4 | 13 | -17 | -17 | -17 | Open windrow composting | 25 | 0 | 0 | 1 | 0 | 0 | 2.5 | 5 |



2.102 The principal divergence between optimistic and pessimistic forecasts occurs in municipal waste, and therefore the forecasts are broadly similar. This is evident in the slight difference in MRF requirements but not for other types of recycling facility where there is existing over-capacity. In other waste streams the differences between the optimistic and pessimistic scenarios occurs after 2015, and therefore occurs after the substantial amount of recently consented capacity is assumed to become operational. This limits the predicted capacity shortfall.

2.103 The only other difference between the two forecasts is the need for food waste composting facilities, with one extra site requirement under the optimistic forecast which assumes a faster roll out of collection services to households.

2.104 Figures 2.8 and 2.9 also indicate the typical capacity assumed for each type of facility and from this an interim estimate of the number and phasing of facilities required can be identified. The site requirement is always based on the largest figure regardless of whether it is from the optimistic or pessimistic scenario. This approach provides flexibility insofar as it ensures the sites brought forward through the Waste DPD process will deliver the capacity regardless of which scenario materialises in the future.

Adjustments to Build Flexibility Into The Site Requirements for Built Facilities

2.105 Before finalising site requirements for built facilities, it is necessary to make a number of adjustments that cannot be easily programmed into the forecast model. Table 2.6 summarises the waste management functions that are affected; the reasons for making the adjustment; and the number of sites that are added.

2.106 Being able to deliver a self sufficient waste plan has been a particularly taxing issue for Merseyside and Halton, and Table 2.6 also includes contingencies to take account of waste movements to and from the sub-region.

Table 2.7 Summary of Flexibility Adjustments to Site Forecast for Built Facilities

| Management Function | Reason for Adjustment | Flexibility Adjustment |
|------------------------|--|---|
| Recycling LACW | MRF capacity will be increased once the Gillmoss facility comes on-stream at the end of 2011 which provides for the extra site. However the top rows in Figures 2.8 and 2.9 show the existing facilities and if recycling performance continues to improve then a capacity gap may develop and it would be prudent to provide flexibility by adding a further site to cover this possible outcome. | Add a further MRF (this could be met by a district-level site) and review need in monitoring the plan. |
| Managing residual LACW | A large quantity of residual LACW may need to be bulked and possibly loaded onto rail or water transport before being sent to the RRC. The requirement for this facility is not certain but if needed it will be part of the infrastructure that MWDA needs to fulfill its waste management obligations and the need for a site should be anticipated. | Add a municipal WTS. The quantity of waste handled means this will be a sub-regional site which will be needed by 2015. |
| Food waste composting | No adjustment, however (as stated) assumed requirements are based on the greater forecast which is from the Optimistic scenario. | 4 small to medium-sized plants but this may be reduced if a larger facility is brought forward. |



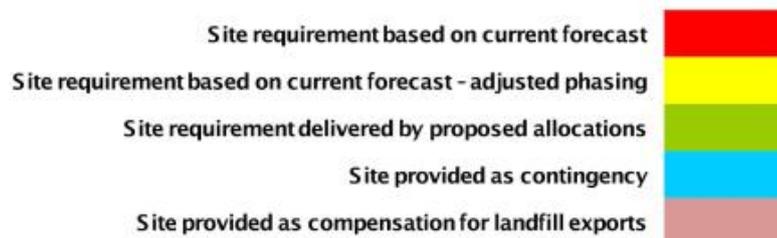
| | | |
|--|---|---|
| <p>Pre-treatment (primary) of residual C&I waste</p> | <p>Figures 2.8 and 2.9 show no extra capacity is needed because recent consents for 300,000 tonnes of treatment capacity at Garston Dock Liverpool and Widnes Waterfront have been taken into account. However these two sites occupy sub-regional site allocations included in the Waste DPD and therefore the requirement for these sites needs to be recognised in the forecast.</p> | <p>Add requirement for 2 pre-treatment facilities to be provided before 2015.</p> |
| <p>Specialised treatment of residual C&I waste</p> | <p>The needs assessment is sufficiently detailed that it assesses the ability of the existing waste management infrastructure to treat the large quantity of C&I waste that is similar in composition to LACW, and the smaller but still substantial quantity of other wastes (metals, chemicals, etc.) that will need to be managed separately. The Optimistic scenario predicts a small shortfall in capacity will occur by 2020 but before that there will only be a small surplus and it is prudent to assume the extra capacity may be required sooner</p> | <p>No additional site but phasing is changed to assume the site may be required earlier (by 2015)</p> |
| <p>Secondary or thermal treatment of C&I waste</p> | <p>The pessimistic forecast identifies a small deficit of this type of capacity relatively late in the plan period, yet there is a significant surplus of capacity taking either heavily or mildly pre-treated waste which persists throughout the plan period. It is not evident that the shortfall reflects a need for special EfW facilities and therefore the forecast addresses this via industry response (and use of a criteria-based policy for such circumstances).</p> | <p>No adjustment of site numbers but base site requirements on the Pessimistic scenario.</p> |
| <p>Hazardous waste treatment or recycling</p> | <p>The extra site forecast by the previous needs assessment was the result of an error in the capacity balance estimates. However, the Waste DPD would lack flexibility if there is no requirement for an additional site given the significant contribution that Merseyside and Halton make to managing these wastes in the UK.</p> | <p>Add one site to be available by 2015 (the site profiles identify those locations in Flood Risk Zone 3 which are unsuitable for this purpose)</p> |
| <p>Non-specific provision to offset waste exported to landfill</p> | <p>The next section presents the forecast landfill requirements which show the sub-region will need to export some residual waste over the whole plan period. In order for the Waste DPD to deliver self-sufficiency net of such movements of waste it is necessary to provide land allocations capable of delivering capacity to recycle, reprocess or manage the same quantity of waste as that which will be exported. This added flexibility supports the plan objective of self-sufficiency and, as the nature of waste use is not defined, it could also enable the deployment of new technologies that might help to reduce sub-regional landfill requirements</p> | <p>Add two facilities of non-specific type (the requirement is likely to be for up to 2 sub-regional facilities under the pessimistic forecast scenario but this capacity could be delivered on three of the larger district-level sites instead). Moreover, Figures 2.8 and 2.9 both forecast surplus capacity in the sub-region's permitted primary and thermal treatment facilities. These sites could also provide the compensatory capacity meaning no additional provision would be needed.</p> |



2.107 Figure 2.10 summarises the total site requirements including the adjustments made in light of the changes in Table 2.6. It highlights only those waste management needs where it is shown that there is a surplus capacity requirement for a particular waste management function. Sites shown as required by 2010 will need to be brought forward as soon as possible in order to replace existing contingencies (such as export to other sub-regions), whereas thereafter, the latest date identifies the year by which the capacity is needed.

Figure 2.10 Adjusted Site Requirements

| Stream | Facility type | 2010 | 2015 | 2020 | 2025 |
|---------------|--|------|------|------|------|
| MSW | MRF | | 1 | | |
| | HWRC | 1 | | | |
| | Bulking prior to delivery to EfW plant | | 1 | | |
| MSW+C&I | Food waste composting | 1 | 2 | 1 | |
| C&I | Primary treatment (mixed waste) | 2 | | | |
| | Treatment (non-mixed waste) | | 1 | | |
| Non-hazardous | Unspecified built facilities | | 2 | | |
| Hazardous | Treatment | | 1 | | |
| | | 4 | 8 | 1 | 0 |



Landfill Requirements

2.108 A comprehensive survey of active and historic landfill sites within the sub-region was undertaken, looking also at other potentially exploitable brownfield sites identified in the National Land Use Database, as well as current and former mineral working sites. The survey concluded that there are no new sites suitable for non-inert landfill disposal within the sub-region that are deliverable. The survey also identified only a relatively limited number of sites with the potential for development or re-development for the same purpose. The resulting list of sites was evaluated further in terms of land-ownership issues, the willingness of the local planning authority to support the use of each one for landfill disposal, as well as preliminary consideration of the financial and engineering viability of developing and restoring the site.

Capacity Requirements for Non-Inert Landfill

2.109 The sub-region has one operational non-inert, non-hazardous landfill operated by Cory Environmental at Lyme & Wood Pits, Haydock, however the current planning permission for the site expires in June 2012. The operator has submitted details to the Local Planning Authority estimating there will still be a void space of



approximately 760,000m³ when the current permission expires. Any plan for continued operation of the site will have to be reviewed and agreed by the Council, Environment Agency and others. Therefore the availability of capacity after June 2012 cannot be confidently predicted, and is not included in this DPD.

2.110 As a result, the Waste DPD has to adopt a policy position that non-inert, non-municipal residual waste will have to be exported throughout the plan period (ie. to 2027) and possibly beyond. This policy position presents three issues:

- Deliverability [1]: Wastes involved are from non-LACW sources, the details of how and where they are disposed depend on commercial contracts. Waste planning authorities have no control over these contracts and can only influence them by controlling landfill void space through planning permissions. This control can only be used in Merseyside and Halton at the Lyme & Wood Pits site until June 2012.
- Deliverability [2]: Many of the region's landfills are experiencing a decline in deposit rates which means that their permissions will expire before they have been filled. Since Merseyside and Halton is assumed to have no local non-inert landfill capacity after June 2012, the opportunity to export non-inert wastes to landfills elsewhere in the region will be entirely dependent on decisions taken by other sub-regions about whether to extend permits to allow continued exploitation of their residual void space.
- Planning Soundness: In a situation such as this, the Planning Advisory Service and Planning Officer's Society have advised Merseyside EAS that evidence must be provided to substantiate the proposed policy position.

2.111 The Waste DPD cannot provide conclusive evidence that there will be sufficient local void space to meet the forecast because it cannot deliver new non-inert landfill capacity, nor can it guarantee that capacity elsewhere in the region will be available despite seeking specific feedback on this issue from the other waste planning authorities in the North West when consulting on the Preferred Options. However, discussions have been held with the principal landfill operators in the North West, and with other representatives of the regional waste management sector. These discussions have indicated a widespread confirmation that current deposit rates mean that the existing landfills within the region are capable of providing capacity to accommodate the residual waste arising in Merseyside and Halton.

2.112 Non-inert waste going to landfill comprises a range of material including: mixed C&I waste which may be uneconomic to treat or unsuitable for recycling; residues from pre-treatment of C&I waste in local facilities; residues from thermal treatment of wastes (incinerator bottom ash); and CD&E wastes that are defined as chemically or physically non-inert (eg. waste soils). Table 2.7 summarises the forecast of non-inert void space requirements for the optimistic scenario. It includes the void space requirement for non-LACW waste as all LACW is assumed to be managed by WRG at Arpley or another WRG landfill until 2015 under the terms of its contract with MWDA. At present it is not clear how this material will be managed in subsequent years and therefore some LACW material is included in these figures.

Table 2.8 Non-inert Landfill Need Forecast 2010-2027

| [Source: Merseyside EAS] | | |
|--|--------------------------------------|---------------------------------------|
| Non-inert Landfill Capacity Requirements | Optimistic Forecast (000s tonnes) | Pessimistic Forecast (000s tonnes) |
| LACW to be sent to non-inert landfill | 1879 | 2306 |
| External voidspace for LACW secured by contract | 1427 | 1446 |
| LACW voidspace mass balance | -451 | -857 |
| Total Non-LACW to be sent to non-inert landfill | 2789 | 5175 |
| Local Void Space to accommodate non-LACW | 449 | 449 |



| | | |
|--|-------|-------|
| Total External Void Space needed (plan period) | -2341 | -4726 |
| External void space needed (annually) | -80 | -300 |

Capacity Requirements for Inert Landfill

2.113 There are currently no active inert landfill sites in Merseyside and Halton, however, there are two existing minerals permissions with planning consent to restore using inert waste landfill, and which are expected to become active in 2011 or 2012. Both have existing void space, as they are existing mineral extraction sites. The future rate of landfilling is therefore influenced by the rate extraction of sandstone (Bold Heath Quarry, St Helens) and brickclay (Cronton Claypit, Knowsley) respectively. Both sites are underlain by a major aquifer, and consequently the materials they can accept for restoration by landfill will be strictly controlled by their Environmental Permits and planning conditions.

2.114 As previously mentioned, the construction industry at 2010 was in a slump, and following discussion with the waste industry, growth in arisings is not expected to occur before 2015 as the economy emerges from recession. This does not mean that waste will not be created, but it does indicate that demand for building materials and the need to dispose of unrecycled soils/rubbles will be reduced. This is also reflected in assumptions about rates of extraction from the mineral operations. The pessimistic forecast scenario assumes limited extraction until 2015, rising in the period to 2020, and then falling again. A similar approach is adopted for the infill and restoration rates. Both forecasts are adjusted to assume 10% of the deposited material is over burden or cover. Figures 2.11 and 2.12 show the timelines for utilising inert landfill capacity.



Figure 2.11 Inert Waste Landfill Void Space Requirements - Optimistic Scenario

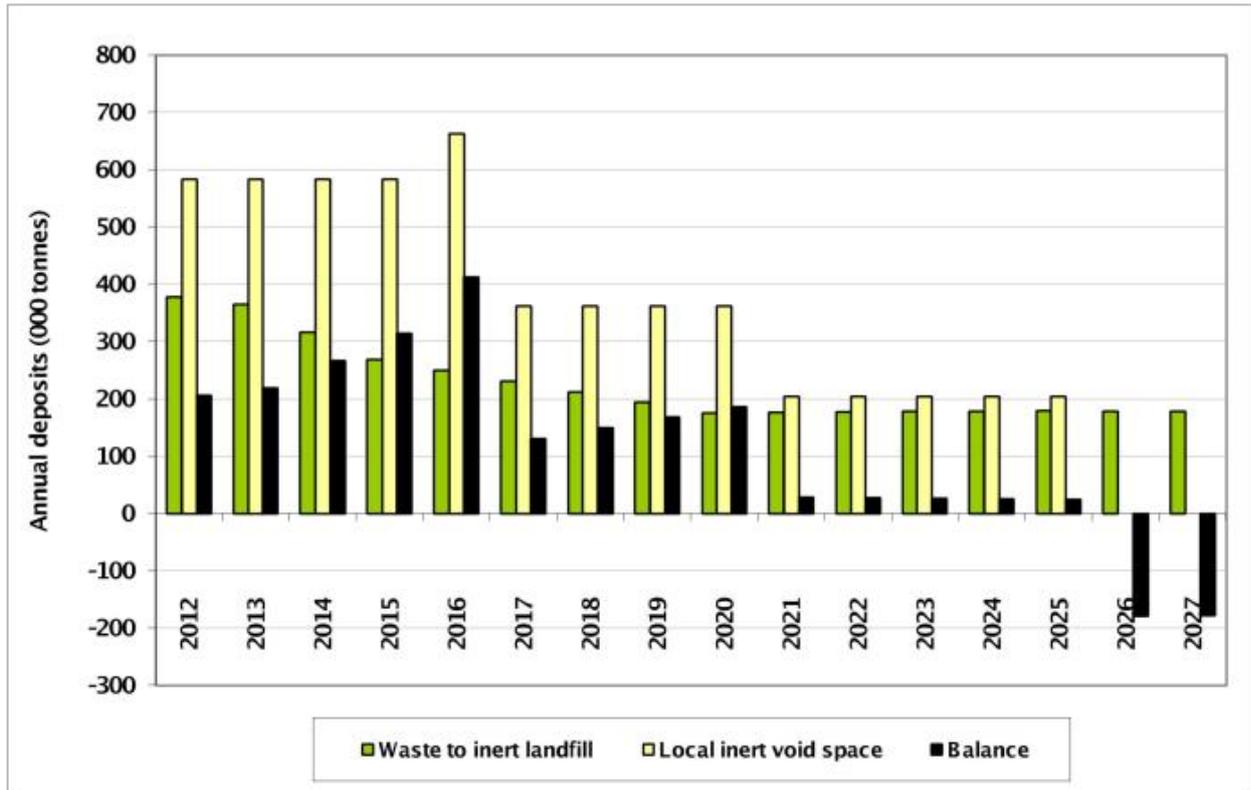
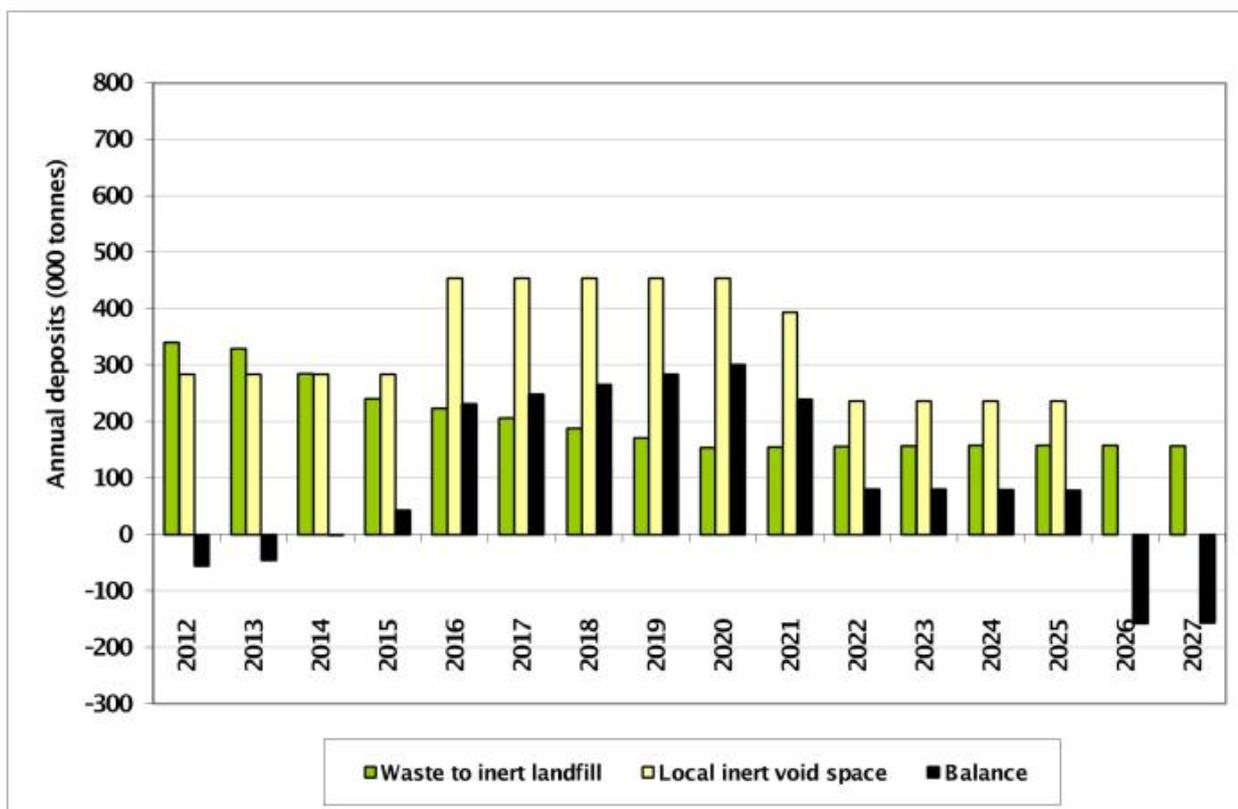




Figure 2.12 Inert Waste Landfill Void Space Requirements - Pessimistic Scenario



2.115 Table 2.8 summarises the total quantities of inert waste arisings over the entire plan period and identifies periods when the total requirement exceeds the supply of void space, although the overall balance over the lifetime of the plan show surplus capacity. The total void space available is just over 3 million m³, but this is increased once density conversion factors^e are applied. The conversions are different at each site according to discussions with site owners/operators and more detail is provided in the Needs Assessment (2011).

Table 2.9 Comparison of Inert Landfill Need Forecasts

| [Source: Merseyside EAS] | | |
|----------------------------------|---------------------|------------------------|
| | Optimistic Forecast | Pessimistic Forecast |
| Total material to inert landfill | 4331 | 3889 |
| Local Void Space Available | 5472 | 4745 |
| Overall Capacity balance | 1141 | 857 |
| Periods of capacity shortage | 2026-2027 | 2012-2014 2026-2027 |



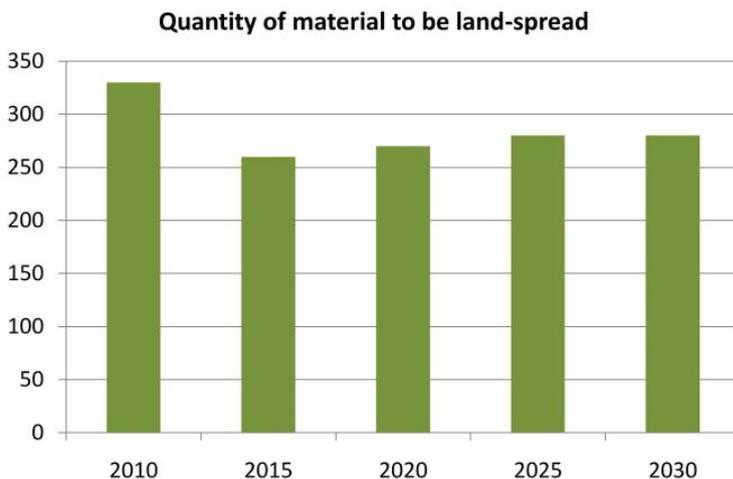
2.116 National planning policy (PPS10) requires that the Waste DPD provides for landfill needs for at least 10 years from the adoption date – in this case: 2012-2022. The pessimistic forecast implies that this cannot be achieved in the first two years of the plan period. However, the inert landfill forecasts have been fully informed by estimates provided by the respective site operators. The early shortfall shown above applies to only one of the two sites and the operator's current plans are very clearly focused on achieving the extraction and backfill rates which are used to derive the optimistic forecast. This shortfall only appears because the Waste DPD has attempted to be flexible and has forecast two scenarios even though the optimistic is more likely to occur and this would satisfy the landfill supply requirement stated in PPS10.

Other Inert Disposal Requirements

2.117 In addition to landfill disposal, the Waste DPD assumes that 10% of CD&E wastes will be spread on land for landscaping or other purposes, usually with an exemption from Environmental Permitting⁶. The forecast assumes that the current, higher rate of land-spreading will fall to this level because the amount of waste that can be deposited under an exemption has been reduced recently, and because this activity will incur landfill taxes from 2012 onwards. Nevertheless the Waste DPD assumes some continuing demand to use inert wastes in this way and that, if necessary, more sites will accept material within, rather than exempt from, the Permitting process.

2.118 The quantity of waste to be spread on land is forecast to be around 240,000te annually. Allowing for compaction and an average spreading depth of 1 metre this represents a requirement for only 16 hectares annually. This is shown in figure 2.11.

Figure 2.13 Land-spreading forecast



2.119 The Waste DPD does not make any allocation for this material as it will be deposited wherever there is a market demand, and this will shift during the plan period. Obvious sources anticipated in Merseyside and Halton are the Liverpool and Wirral Waters developments and embankments for the second Mersey Gateway Project.

Planning for Self Sufficiency in Waste Management

2.120 Merseyside and Halton must strive to be as self sufficient as possible for all waste streams by the end of the plan period, and this position has been supported throughout the development of the Waste DPD by consultees and stakeholders. Neighbouring waste planning authorities are also striving to achieve self sufficiency and there is an

acknowledgement that the majority of waste will be managed within each sub-region. Neighbouring authorities are nonetheless concerned that Merseyside and Halton cannot achieve this because of a continuing requirement for Merseyside and Halton to export residual waste to landfill.

2.121 However, self sufficiency in waste management cannot be fully plan-led because the waste industry operates across administrative boundaries through commercial contracts which use local and regional-scale sites. This is the case for all waste planning authorities and not just Merseyside and Halton. There is currently a lot of waste moving in and out of Merseyside and Halton, therefore, genuine self sufficiency in Merseyside and Halton is unlikely to be achieved, and the Waste DPD has little control over this issue. However, net self sufficiency may be achievable as imports and exports balance themselves out. Whatever the final outcome, a balanced approach is needed to ensure that Merseyside and Halton play their part in meeting their identified waste management needs, and ensuring that adjacent planning authorities are satisfied that the sub-region is not simply exporting waste. Conversely, the Merseyside and Halton districts need to be satisfied that they do not become net importers of waste on a significant scale.



2.122 Availability of regional landfill capacity is very important to Merseyside and Halton because it is difficult to provide additional future capacity for non-inert landfill locally, due to the geological make up, population density and lack of holes in the ground. National planning policy (PPS10) encourages sub-regions, such as Merseyside and Halton, to manage their own waste arisings locally. This policy position is also supported by the Regional Spatial Strategy, as it stands, however, RSS policy EM13 recognises this challenge particularly in the Mersey Belt and considers that areas such as Merseyside and Halton will need to offset any landfill export with additional built facility capacity, and this is the broad thrust of the Waste DPD position on this matter. Although, RSS will be abolished when the Localism Bill is introduced, policy EM13 is based on supporting evidence to RSS which remains relevant.

2.123 Significant quantities of waste are exported from the sub-region to non-inert landfill in neighbouring authorities and regions, and there will be a lessening but continuing requirement for this throughout the lifetime of the plan. Conversely, however, Merseyside and Halton have planning consents for several large scale thermal treatment facilities with a combined capacity of greater than 1,500,000 tonnes. These are likely to be of regional significance and provide potential capacity to offset the non-inert waste sent to landfills in other waste planning authorities.

2.124 There will be continued reliance on existing and new regionally significant or specialised facilities which will have the effect of drawing waste into those areas where these important facilities are located. For example, Greater Manchester's Municipal Waste Contract will be utilising the Ineos Chlor Energy from Waste facility at Runcorn, and the Cheshire Municipal Waste contract will also use this facility, subject to finalisation of contracts. This facility is located in Halton, and therefore assists Merseyside and Halton in balancing its imports and exports.

2.125 Over the last five years the quality and completeness of data about waste arisings, how they are managed, and their fate has improved significantly, largely as a result of the efforts of Defra and the Environment Agency, but with the support of other bodies such as Waste Resources Action Group (WRAP). Unfortunately some problems remain and the most significant are the result of regulatory restrictions on the information that the Environment Agency is authorised to collect through the various permitting systems. For example, material spread on land under exemption from Environmental Permitting is never recorded, while material that has undergone substantial processing into a secondary material may no longer be classified as waste and therefore its fate is not recorded. A similar issue affects recyclables sent to reprocessing facilities which are not obliged to record the source of materials they accept and this prevents certain wastes being tracked throughout their life cycle.

2.126 Notwithstanding these issues, Table 2.9 characterises the current 'balance sheet' of waste imports and exports as a means of estimating the sub-region's current level of self-sufficiency; how much improvement is needed; and where it might be directed. Due to the limitations referred to above, the table should be regarded as indicative rather than definitive.

Table 2.10 : Indicative Estimate of Sub-regional Self Sufficiency in Managing the Principal Waste Streams in Merseyside and Halton Based on 2009 Data [Source: Environment Agency]

| Waste Stream | Waste Movement | Exports | Imports |
|--------------|--|---------------------|-------------|
| | | 000s tonnes | 000s tonnes |
| LACW | Residual waste to landfill | 400 | 15 |
| | Residual waste to treatment | - | 25 |
| | Material to composting sites | 50 | - |
| | Recyclates sent to re-processors | Cannot be estimated | |
| | RDF ^G sent to thermal treatment | - | - |
| C&I | Residual waste to landfill | 195 | 105 |



| Waste Stream | Waste Movement | Exports | Imports |
|--------------|---|---------------------|-------------|
| | | 000s tonnes | 000s tonnes |
| | Residual waste to treatment | 50 | 25 |
| | Recyclates sent to re-processors | Cannot be estimated | |
| CDE | Residual waste to landfill | 10 | 60 |
| | Recycled aggregates generated by mobile plant | Cannot be estimated | |
| Hazardous | Material recycled or treated | 120 | 120 |
| Agricultural | - | All handled locally | |
| Radioactive | - | All handled locally | |
| Other | Water treatment waste incinerated | - | 75 |
| TOTALS | | 825 | 425 |

[Some figures have been rounded slightly. Figures in italics are Merseyside EAS estimates]

2.127 If they are representative, these estimates suggest Merseyside and Halton exports almost twice the amount of waste it imports based on the most recent data. However this position will change early in the plan period once the Ineos Chlor plant begins to receive RDF from Greater Manchester and Cheshire and this will almost balance the exported material. One consequence of this is that the flexibility adjustment to offset landfill exports which is referred to in the final row of Table 2.6 may be smaller than forecast, or possibly not required at all. Moreover, if other spare primary and thermal treatment capacity that is already permitted, but not yet built, comes into operation and handles waste from other authorities then Merseyside and Halton might become a net importer of waste.

2.128 This analysis also illustrates why it is important that the Waste DPD strives for high levels of resource recovery. Table 2.7 shows that exports of residual waste to landfill will not decline significantly if the conditions defined by the Pessimistic scenario persist. In contrast, better diversion rates could cut landfill exports by 80% of current rates.



3 Vision and Spatial Strategy

3.1 Vision

Vision for the Waste DPD

3.1 The vision statement identifies where Merseyside and Halton want to be by 2027 at the end of the plan period in terms of sustainable waste management, and therefore provides a direction of travel for the Waste DPD. It describes the Waste DPD position relative to other relevant national policies and strategies and is consistent with the emerging Core Strategies for each of the districts. The vision will be realised through the strategic objectives.

The Waste DPD Vision:

By 2027, the Waste DPD will have facilitated the development of a network of sustainable and modern waste management facilities which serve the needs of the local communities of Merseyside and Halton, enabling them to be as sustainable and self sufficient as possible in terms of waste management.

The communities of Merseyside and Halton will have taken responsibility for their waste, and through effective resource management, created economic prosperity by transforming waste into a resource and moving waste up the waste hierarchy.

This network of facilities will be designed and sited to avoid negative impact on health and amenity and enhance the natural and built environment, with site allocations being appropriate to the scale and type of waste management facility, and where possible enable waste management in Merseyside and Halton to support mitigation and adaptation to climate change.

Explanation:

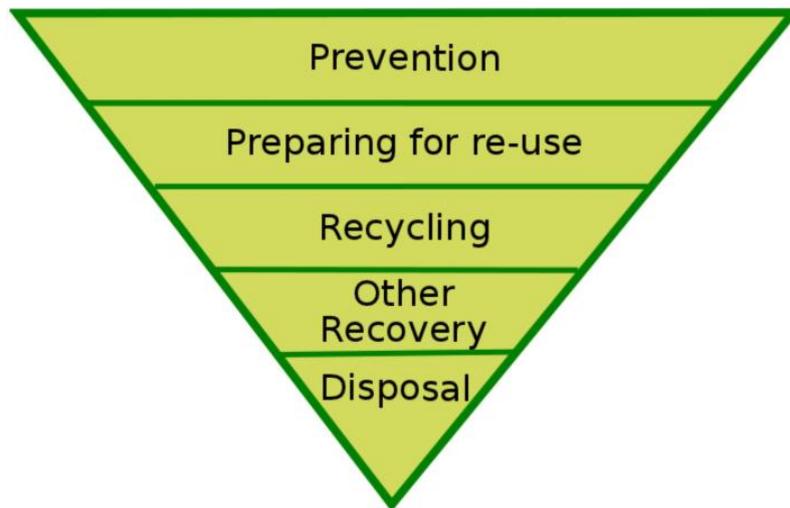
3.2 The vision statement has been informed by:

- Results of the Issues and Options, Spatial Strategy and Sites (SSS) and Preferred Options Consultations and feedback received through stakeholder groups;
- The waste hierarchy and how this applies to the specific waste management issues that Merseyside and Halton face;
- The Climate Change agenda;
- Results of the Sustainability Appraisal, and;
- Specific constraints that Merseyside and Halton face in terms of spatial planning.

3.3 The national waste hierarchy is shown in figure 3.1.



Figure 3.1 The Waste Hierarchy



3.4 The table 3.2 shows how the Waste DPD will be promoting the waste hierarchy, through strategies, policies and provision of sites.

Table 3.1 How the Waste DPD can Help Merseyside and Halton Promote the National Waste Hierarchy

| Stage in Waste Hierarchy | Merseyside and Halton's Waste Management Need | How the Waste DPD will address the need |
|--------------------------|---|---|
| Prevention | <p>Communities need to take responsibility for their own waste, and recognise the need to reduce the amount produced, thus preventing resources entering the waste stream in the first place.</p> <p>Fines will be imposed from Europe if recycling / recovery and landfill diversion targets are not met. Reducing the amount of waste produced is crucial to meeting these targets.</p> | <p>Through waste minimisation and design and layout of new development policies.</p> |
| Preparing for Re-use | <p>Various businesses, including social enterprises operate bulky household goods collection service across many of the districts in Merseyside and Halton. This network could usefully be expanded to cover the whole sub-region and potentially the commercial sector. Awareness raising among the general public and businesses on waste re-use issues would be beneficial.</p> <p>Re-use is easier for some waste streams, such as bulky household goods and construction & demolition waste.</p> | <p>Through waste minimisation policy, including promotion of Site Waste Management Plans for Construction projects.</p> <p>Through provision of sufficient number of appropriate sites which can be developed for recycling facilities for both household and commercial waste.</p> <p>Working with the MWDA on awareness raising initiatives.</p> <p>Promoting greater integration between all waste management sectors in the sub-region.</p> |



| Stage in Waste Hierarchy | Merseyside and Halton's Waste Management Need | How the Waste DPD will address the need |
|--------------------------|---|---|
| | Improvements and additional capacity for Household Waste Reception Centres is needed, along with provision of commercial waste reception centres. | |
| Recycling | <p>Merseyside and Halton started from a very low point in terms of recycling with some of the lowest rates in the country. Rates are improving significantly year on year and in 2010 the overall recycling rate for Merseyside & Halton was 35%.</p> <p>There is a shortfall in the number of facilities currently available to optimise recycling performance.</p> | <p>Through the resource recovery-led strategy.</p> <p>Through waste minimisation policy, including promotion of Site Waste Management Plans for Construction projects. Through two design policies.</p> <p>Through provision of sufficient number of appropriate sites which can be developed for recycling facilities for both household and commercial waste.</p> |
| Other Recovery | <p>The sub-region has limited opportunity for landfill, and therefore will need to maximise recovery of waste in order to minimise the amount of waste that needs final disposal.</p> <p>Large consented capacity of thermal treatment facilities.</p> | <p>Through the resource recovery-led strategy. Through contributing to energy security through use of waste as a renewable energy source, and through the provision of a criteria-based policy for small-scale EfW.</p> |
| Disposal | <p>Merseyside and Halton currently has one landfill which can accept non-hazardous waste, this is not filling at the anticipated rate and will still have void space when it is due to close in 2012. This shows that diversion of waste from landfill is occurring but has the effect that landfill sites are not being fully exploited without extensions to the duration of permissions.</p> <p>A significant quantity of waste is exported to neighbouring areas, this is likely to continue until sufficient new waste management facilities come on line for treating wastes in other ways.</p> | <p>Through resource recovery-led strategy, and therefore reducing reliance on landfill.</p> <p>Contributing to energy security through use of waste as a renewable energy source.</p> <p>Where landfill capacity can be identified in Merseyside and Halton it should be safeguarded for the greatest disposal needs, subject to environmental constraints.</p> <p>Through diversion of inert landfill, including spreading to land and reprocessing of secondary aggregates.</p> |

Policy and Evidence Base References:

PPS10, WS2007, NW SCP Framework, SA Scoping Objectives and Report, Habitats Regulations Assessment.

The Strategic Objectives for the Waste DPD

3.5 In order to deliver the vision for the Waste DPD, and in response to public consultation the following objectives have been identified.



Strategic Objectives

SO1 - To plan for sufficient waste management facilities to meet Merseyside and Halton's identified waste management needs.

SO2 - To promote waste minimisation and optimise re-use and recycling of waste materials for both waste specific and non-waste planning applications.

SO3 - To encourage waste management facilities which increase re-use, recycling and value/energy recovery of all waste types, including through the use of new, effective and safe waste management technologies where appropriate, and minimise final disposal, in order to meet national targets and Merseyside and Halton's local waste targets.

SO4 - For Merseyside and Halton, as one of the North West's City Regions, to be a leader in promoting transformation of waste to resource to encourage social, economic, environmental and employment gain from sustainable waste management.

SO5 - To raise awareness in sustainable waste management amongst the people and business communities of Merseyside and Halton to reduce waste arisings and increase recycling rates, in particular given the low starting point for the sub-region in terms of recycling.

SO6 - To minimise the adverse effects of waste management development (including transportation) and enhance positive impacts where possible, on human health, local amenity and the natural and urban environment and heritage of Merseyside and Halton.

SO7 - To promote high quality development for waste management facilities.

SO8 - For all new waste management facilities on Merseyside and Halton to take account of and contribute to reductions in greenhouse gas emissions and mitigate the effects of climate change.

Explanation:

3.6 The strategic objectives are important to secure the delivery of the Waste DPD. For this reason the strategic objectives are linked to the development management policies and included as part of the Implementation and monitoring strategy.

3.7 SO1 has raised most comments, particularly from neighbouring waste planning authorities who are concerned with Merseyside and Halton's continuing need to export non-inert waste to landfill. It is important to note that Merseyside and Halton must strive to be self sufficient otherwise the sub-region would be in conflict with national planning policy (PPS10). However, RSS (para 9.35) acknowledges that some metropolitan areas are unlikely to meet planning and other requirements for landfill provision, and therefore should compensate by providing additional treatment capacity to compensate for residual waste that is exported and to promote movement of waste up the waste hierarchy to minimise the amount of waste that needs to be disposed to landfill. This is the approach that Merseyside and Halton has adopted.

3.8 During the preparation of the Waste DPD, there has been regular liaison with the waste industry including landfill operators in the North West region, and as a consequence Merseyside and Halton is confident that there will be sufficient landfill capacity in the NW region to meet its needs without seriously impinging on the overall regional landfill capacity and the neighbouring sub-regions capacity to meet their needs.

Policy and Evidence Base References:

PPS10, WS2007, NW SCP Framework, SA Scoping Objectives, Needs Assessment



Overarching strategic approach for the Waste DPD.

3.9 Merseyside and Halton will adopt a Resource Recovery-led Strategy for the Waste DPD which is consistent with national policy. The Waste DPD will therefore determine the number and capacity, location and broad types of facility that are required during the Plan period particularly within the context of continuing to increase landfill diversion rates. However, it should be noted that achieving a resource recovery-led strategy will take time to be realised because it depends on new facilities. Therefore, the resource recovery-led strategy is the long-term strategy for achieving the vision of the Waste DPD by 2027.

3.10 In defining the strategy, it is important to note that through two independent, evidence-based processes, both the current Joint Municipal Waste Management Strategy (JMWMS) 2008 and the Waste DPD have identified complementary strategies which emphasise the need for a resource recovery-led approach.

The Strategy for meeting Merseyside and Halton's Waste Management Needs

The overarching approach for the Waste DPD will be a Resource Recovery-led strategy with the following objectives:

1. To seek to minimise waste arisings.
2. To maximise recycling, resource recovery and re-processing.
3. To ensure that residual waste is minimised and then processed in a way that will:
 - Maximise the economic and environmental benefits to local communities and businesses;
 - Minimise export of residual wastes for landfill disposal;
 - Minimising the need for new landfill/landraise and reserving capacity for the greatest disposal needs; and,
 - Balance any export of landfill tonnages with import of equivalent material for secondary treatment to ensure that Merseyside and Halton are as self sufficient as possible in waste management capacity.

Explanation

3.11 As highlighted in the 'Portrait of Merseyside and Halton', there are significant constraints on the sub-region both in terms of it being highly urbanised and also because of its underlying geology and hydrogeology. Therefore, opportunities for final waste disposal via landfill are very restricted. This was the primary purpose of developing an overall strategy to illustrate how Merseyside and Halton will meet its waste management needs emphasising waste management options further up the waste hierarchy.

3.12 The purpose of the strategic approach is to demonstrate that overall the sub-region is contributing to regional waste management infrastructure and being as self sufficient as possible in the process, minimising the residual quantities of waste that need landfill disposal and reducing the reliance on sites in neighbouring authorities. This is backed up by the evidence base. This approach also sits comfortably with the aims and objectives of the Waste DPD.

3.13 In minimising the amount of waste sent to landfill, Merseyside and Halton will need to plan for a greater number of waste treatment facilities. Any deliverable landfill void must be reserved for the most pressing disposal needs, subject to being appropriate for the site.

3.14 The Waste Planning Authorities in Merseyside and Halton can only implement the Resource Recovery-led Strategy through provision of appropriate sites and enabling waste policies. Financial implementation will be via the private waste industry or through MWDA and Waste Collection Authorities who either have a duty to provide sites as part of their operations, or who can see a business need and opportunity. More details of this are shown in the Implementation and Monitoring Framework.

Policy and Evidence Base References:



PPS10, District UDPs and emerging Core Strategies, Lancashire's Minerals and Waste Core Strategy, Cheshire Waste Local Plan, SA Scoping Objectives and Reports, Habitats Regulations Assessment.

3.2 Spatial Strategy

3.15 The spatial strategy for the Waste DPD for Merseyside and Halton is referred to as the Sub-regional Site Approach. Adopting this strategy, which defines both large (in terms of site area and capacity) Sub-Regional and small (in terms of site area and capacity) District sites across the whole sub-region provides the maximum flexibility to bring forward needed waste management capacity early in the Plan period. The strategy provides the waste industry with maximum available choice to deliver the most optimally located solutions for the identified needs of Merseyside and Halton. This approach is considered to be the most suitable for delivering the vision, strategic objectives and Resource Recovery-led strategy of the Waste DPD.

The Sub-Regional Site Approach

The spatial strategy identifies an appropriate number of large sites suitable for sub-regionally significant facilities of more than 4.5 hectares in area. There is one sub-regional site located in each of the districts, and they are spatially distributed across the plan area taking account of matters such as proximity to waste arisings and infrastructure. These sites are located in the vicinity of existing clusters of waste management facilities where these have been shown to be sustainable. The sites were selected using robust site selection criteria based on constraint and opportunity mapping.

District sites are identified to accommodate smaller-scale local facilities taking into account specific local needs, such as proximity to waste arisings, and to ensure that sufficient small sites are also available to meet the short to medium-term needs of the Waste DPD strategy.

The areas around the existing clusters of waste management facilities have been defined as Areas of Search. Other small sites will be most easily identified within the Areas of Search.

Two inert landfill sites are identified. Due to technical constraints there are limited opportunities for landfill within the sub-region, and the sites allocated are the most sustainable and spatially appropriate for this type of activity.

3.16 The spatial strategy is illustrated in figure 3.2 showing site selection criteria used to identify the most sustainable and deliverable locations. The location of sub-regional sites has also been assessed through the SA process.



Explanation:

3.17 The sub-regional site approach has been adopted on the basis that a combined pattern of diffuse, clustered and centralised sites would be the best spatial option for the Waste DPD. It provides a wide range of site sizes and requirements, takes account of clustering sites, maximising potential benefits that can be gained from co-locating waste management facilities, and the situation on the ground in terms of spatial pattern of employment land uses such as business parks. It also makes it easier to fulfil the requirements of the needs assessment and the JMWMS, as it is based upon:

- Sources of waste arisings;
- Current waste movements;
- Minimising transport impacts;
- Location of existing waste management facilities
- Climate change; and,
- Site Selection methodology.

3.18 The Spatial Strategy also takes specific account of the highly constrained supply of large sites suitable for the location of waste management facilities across all six districts, and also, the greater number of small sites that tend to have a more dispersed distribution across the sub-region.

3.19 This approach is the most sustainable, due to its robustness and flexibility to adapt to the changing waste needs of Merseyside and Halton, the results of the SA, and is also fully compliant with national guidance in the form of PPS10. The SA did raise some concerns with respect to potential combined negative impacts of clustering sites, but recommended that assessment of potential cumulative effects especially with regard to transport and traffic, air quality, noise, odour, landscape and other potential negative effects is required to ensure further expansion/co-location will not lead to adverse effects on the surrounding environment and communities. This has been done as part of the site selection process for allocated sites, in particular when looking at the deliverability⁶ of the site, but will also be required as part of the evaluation of proposals on unallocated sites, where they come forward for determination, as set out in policies WM1 and WM13. Further and more detailed, site-specific assessment will be required at the planning application stage when conformity with development management policies will be required.

Policy and Evidence Base References:

PPS10, District UDPs and emerging Core Strategies, Merseyside LTP3, SA Scoping Objectives and Reports, Habitats Regulations Assessment, Needs Assessment, Issues and Options Report, Spatial Strategy and Sites Report, Preferred Options Report



4 Site Allocations to deliver capacity requirements

4.1 The site selection methodology used to derive the lists of proposed allocations for waste management use provided in this chapter is fully described in the supporting document "Methodology for Site Selection for built facilities". In the early stages of site selection, the process was dominated by development of an objective, multi-criterion site assessment tool which allocated scores to sites from a long list according to the distance of the site boundary from various features which were regarded as either constraints (e.g. Proximity to residential development yielding negative scores) or positive features (e.g. strategic road network, yielding positive scores).

4.2 In the later stages, having used the objective methodology to generate a short list of sites, attention shifted to considering deliverability issues for the sites which were on the short list. The allocated sites therefore reflect a balance between an objective methodology based on site characteristics and deliverability judgements.

4.3 Two types of sites have been identified :

- Sites for sub-regional facilities, capable of supporting the larger capacity and more complex facilities (greater than 4.5 ha in area);
- Sites for district-level facilities, suitable for smaller waste management operations (less than 4.5 ha in area).

4.4 Each proposed allocation is supported by a site profile that indicates the waste management uses that each site could potentially support. This is not meant to be technology-specific and in many cases a number of different waste uses are seen as possible for a single site. An outline of potential site characteristics is given in Appendix 1. Technological advances coupled with innovative and space-saving design will inevitably mean that not all waste management solutions brought forward by the waste industry will exactly match the site size or capacity requirements suggested in Appendix 1, therefore the information in table 4.1 should be regarded as indicative only.

Table 4.1 Site Allocations: Suggested Waste Uses

| Suggest Waste Management Use | Facility Type |
|--|--|
| HWRC - Household Waste Recycling Centre | Household Waste Recycling Centre |
| WTS - Waste Transfer Station and Sorting Facilities | Waste Transfer Station (including merchant/municipal/inert/non-inert), Materials Recycling Facility |
| Re-processor | Dry Recyclables Re-processor, Specialist Materials Re-processor |
| Primary Treatment | Mechanical Biological Treatment, Anaerobic Digestion, In-Vessel Composting, Open Windrow Composting, other specialist pre-treatment facilities |
| Thermal Treatment | Energy from Waste (including municipal/non-municipal/merchant), Gasification, Pyrolysis |
| RRP - Resource Recovery Park | Co-located built waste management facilities |
| Landfill | Landfill site (including inert and/or non-inert) |

4.5 The Glossary contains individual definitions of the waste management technologies and more detail is provided in Appendix 1.

Intensification of Use at Existing Waste Management Facilities



4.6 Due to the level of land constraint in Merseyside and Halton, some of the sites which are being put forward as allocations are existing waste management facilities. These existing facilities are included because the current throughput at the site is significantly below what it is licensed or permitted, or because there is more land available on the site for (re)development which would allow the operator to increase capacity by expanding existing operations, adding additional types of waste management operation or working in partnership with other waste management operators. They have already been established as suitable for waste uses, reducing the risk that a waste-related development would be unacceptable in principle and because they have been assessed as having the capacity to accommodate additional facilities. This provides additional flexibility to the site allocations to meet capacity requirements through a range of sites, and because development by existing waste management operators will reduce some of the deliverability risks. Where a proposed allocation is for intensification of use, this will be highlighted within the site tables in policy boxes WM2 and WM3.

Site Prioritisation Hierarchy

4.7 A considerable amount of time and effort has been taken to identify sites for allocation on the basis of spatial fit, sustainability and deliverability, and it is important that these sites are prioritised for waste management development for both built facilities and inert landfill above unallocated sites. Areas of search are also identified for re-processing and small-scale waste management activity, alongside a criteria based policy for determining sites which come forward on unallocated sites, both of which provide additional flexibility to the plan. However, to provide clarity for the waste management industry and developers, a prioritised approach to site development is necessary. This is shown in policy WM1 below:

Policy WM 1

Guide to Site Prioritisation

Developers should develop sites allocated in the Waste DPD in the first instance, and should only consider alternatives to allocated sites if allocated sites have already been developed out, or are not available for the waste use proposed by the industry, or can be demonstrated as not being suitable for the proposed waste management operation. There will be presumption in favour of waste management development on allocated sites, as set out in policies WM2, WM3 and WM4, subject to compliance with other policies within the Waste DPD and other relevant LDF documents. This applies to both allocations for built facilities and inert landfill.

If allocated sites are not available, then the waste industry should seek sites within the areas of search, as set out in policy WM5. These areas are suitable for small-scale waste management activity, such as waste transfer stations, re-processing activity or displacement of existing waste management uses. The applicant should demonstrate why allocated sites are not suitable for the specific proposed use as part of the justification.

Developers must clearly demonstrate that both allocated sites and areas of search are not suitable for the development proposed before unallocated sites will be considered. These will need to be justified as follows:

- That the Waste DPD site assessment method is applied, including site selection scoring criteria shown in Tables 5.1 and 5.2;
- Sustainability Appraisal;
- HRA screening;
- Deliverability Assessment; and,
- Compliance with the criteria based policy and other relevant policies.

Explanation:

4.8 A key requirement of PPS10 is to provide sufficient opportunities for new waste management facilities of the right type, in the right place at the right time. The extensive site search selection process has sought to achieve this by allocating sites which fit the spatial approach and which are most sustainable and deliverable. The areas of search were identified on the basis of sustainability and availability of a number of appropriate sites within a particular area. However, they are only suitable for small-scale waste management facilities, such as waste transfer stations and re-processing activity.



4.9 By setting out the approach to site prioritisation, the Waste DPD is providing certainty to the waste industry and local communities, in terms of where waste management development should be focused and is likely to come forward. It is the responsibility of the developer to comply with the requirements of policy WM1 and to ensure that this information is submitted in full as part of the planning application process. Pre-application discussions are essential. Planning consent will not normally be given unless policy WM1 is complied with in full.

Policy and Evidence Base References:

PPS10, Merseyside LTP3, District UDPs and emerging Core Strategies, Needs Assessment, SA Scoping Objectives and Reports, Habitat Regulations Assessment.

4.1 Sub-Regional Sites

4.10 The sub-regional sites are those which are larger in size (4.5 hectares or greater) and waste management capacity, and are capable of supporting facilities which would be of strategic importance to Merseyside and Halton. They may be able to accommodate one large facility or a number of facilities co-located on the same site. Where several facilities are developed on a single site, integration between the operations is desirable to maximise synergies, reduce transport impacts and make best use of infrastructure. These are all criteria that were used for determining the spatial strategy, and therefore, important to ensure that the location of sites fits the spatial strategy for the sub-region.

4.11 Following the site selection and deliverability assessment the sub-regional site allocations for waste management uses are shown in Policy WM2:



Policy WM 2

Sub-regional Site Allocations

The following sites have been allocated to provide waste facilities to meet sub-regional strategic needs.

Table 4.2

| Site ID | District | Site Name and Address | Area (ha) | Suggested Waste Management Uses |
|-----------------|-----------|---|-----------|---|
| H1 | Halton | Site at Widnes Waterfront | 7.8 | Waste Transfer Station, Re-processor, Primary Treatment, Resource Recovery Park |
| K1 | Knowsley | Butlers Farm, Knowsley Industrial Park | 8.0 | Waste Transfer Station, Re-processor, Primary Treatment, Resource Recovery Park |
| L1 | Liverpool | Land off Stalbridge Road, Garston | 5.4 | Waste Transfer Station, Re-processor, Primary Treatment, Resource Recovery Park |
| F1 ^e | Sefton | Alexandra Dock 1, Metal Recycling Site | 9.8 | Re-processor, Primary treatment, Thermal Treatment |
| S1 | St.Helens | Land SW of Sandwash Close, Rainford Industrial Estate | 6.1 | Re-processor, Primary treatment, Resource Recovery Park |
| W1 | Wirral | Car Parking/Storage Area, former Cammell Laird Shipyard, Campbeltown Road | 5.9 | Waste Transfer Station, Re-processor, Primary Treatment |

Planning permission will not normally be granted for any other use of the land that would prejudice its use as a waste management facility subject to para 4.14 below.

^eIntensification of use at existing waste management facility

4.12 The location of the sub-regional sites are shown on figure 4.2, the site profiles can be found in Appendix 2.



4.13 As set out in paragraphs 3.31 to 3.33, the Merseyside Waste Disposal Authority is at an advanced stage of its recovery contract procurement process. The recovery contract bidders are proposing to transport Local Authority collected waste (formerly known as municipal solid waste) outside of the Plan area to EfW facilities and may require waste transfer capacity and potentially primary treatment capacity. The Waste DPD evidence base includes a capacity and site requirement for these Local Authority collected management operations to support MWDA's procurement process in terms of primary treatment and waste transfer capacity but not energy from waste.

4.14 Should planning permission be granted on an unallocated site to treat, bulk or transfer Local Authority collected waste arising within Merseyside and which is specifically part of the MWDA recovery contract procurement process then the site capacity will contribute to the Waste DPD Local Authority collected waste capacity requirements. If the LACW recovery contract site(s) is of sub-regional significance and given that there is to be one sub-regional site allocation per District (policy WM2), the sub-regional site allocation within the District where the unallocated site has come forward would be reviewed. If planning consent is granted for development to implement the Local Authority collected waste recovery contract within an unallocated site e.g. for the transfer of waste outside of Merseyside, then planning permission may not need to be granted for waste uses within the allocated sub-regional site within that District. In these circumstances, the sub-regional site allocation on the Proposals Map for the district concerned will also be reviewed accordingly at the next opportunity.

Explanation

4.15 Sites allocated within the port and dock estates, specifically in Sefton and Wirral, are proposed subject to the waste management operations being port-related. The types of suggested waste uses for each site are shown in the site profiles in Appendix 2.

4.16 National planning policy (PPS10) indicates that it is necessary to safeguard sites allocated for waste management uses in the Waste DPD, that are considered essential for meeting the landfill diversion targets, and ensuring that the right types of treatment capacity come on line early on in the plan process. Although sub-regional site allocations benefit from an implied safeguarding by virtue of the allocation, and will be prioritised for waste management uses in preference to unallocated sites, many of these sites will also be suitable for other types of development, such as employment and may be within areas also allocated for employment purposes. Therefore, the allocation alone cannot be assumed to provide a means of safeguarding them from being developed in another way.

4.17 When determining applications for non-waste development on a sub-regional site specifically identified for waste management, or within a distance that could affect the potential for waste use on a site specifically identified for waste management, consideration will be given to any potential adverse impact the proposed development might have on the future of the site as a location for waste management and therefore, on the Waste DPDs aim and objectives.

4.18 If a development is likely to have an unacceptable impact on the future of the sub-regional site as a location for waste management the applicant will need to demonstrate that there is no longer a need for the allocated site for waste management use, that there is an overriding need for the non-waste development in that location, and/or that the waste management capacity provided by the allocation has been met elsewhere.

4.19 On adoption of the Waste DPD, proposals maps in district LDF documents will need to be amended to reflect site allocations in policy WM2.

Policy and Evidence Base References:

PPS10, Needs Assessment, Broad Site Search Report 2005, Built Facilities Site Selection Methodology, District UDPs and emerging Core Strategies, Merseyside LTP3, SA Scoping Objectives and Reports, Habitat Regulations Assessment.



4.2 District-level Sites

4.20 Refining the number of sites required at a district-level has been achieved using the same site selection process as for sub-regional sites, including taking account of the spatial strategy and deliverability of sites. The Needs Assessment (2011) has also been used to identify capacity requirements and therefore sites needed. The district level site allocations for waste management uses are shown in policy WM3:



Policy WM 3

Allocations for District level Sites

The following sites have been allocated to provide waste facilities to meet district needs.

Table 4.3

| Site ID | District | Site Name and Address | Area (ha) | Suggested Waste Management Uses |
|-----------------|-----------|--|-----------|--|
| H2 ^e | Halton | Eco-cycle Waste Ltd, 3 Johnson's Lane, Widnes | 2.0 | WTS, Primary treatment |
| H3 | Halton | Runcorn WWTW | 1.2 | HWRC, WTS, Re-processor, Primary treatment |
| K2 | Knowsley | Image Business Park, Acornfield Road, Knowsley Industrial Park | 2.8 | WTS, Primary treatment |
| K3 ^e | Knowsley | Mainsway Ltd, Ellis Ashton Street, Huyton Business Park | 2.3 | WTS, Re-processor, Primary treatment |
| K4 | Knowsley | Former Pilkington Glass Works, Ellis Ashton Street, Huyton Business Park | 1.3 | WTS, Primary treatment |
| L2 | Liverpool | Site off Regent Road / Bankfield Street | 1.4 | WTS, Re-processor, Primary treatment |
| L3 ^e | Liverpool | Waste Treatment Plant, Lower Bank View | 0.7 | WTS, Re-processor, Primary treatment |
| F2 ^e | Sefton | 55 Crowland Street, Southport | 3.6 | WTS, Re-processor, Primary treatment |
| F3 | Sefton | Site North of Farriers Way, Atlantic Business Park | 1.7 | Re-processor, Primary treatment |
| F4 ^e | Sefton | 1-2 Acorn Way, Bootle | 0.8 | WTS, Re-processor, Primary treatment |
| S2 | St Helens | Land North of T.A.C., Abbotsfield Industrial Estate | 1.3 | WTS, Re-processor, Primary treatment |
| W2 ^e | Wirral | Bidston MRF / HWRC, Wallasey Bridge Road | 3.7 | HWRC, WTS, Re-processor, Primary treatment |
| W3 ^e | Wirral | Former Goods Yard, Adjacent Bidston MRF / HWRC, Wallasey Bridge Road | 2.8 | WTS, Re-processor, Primary treatment |

Planning permission will not normally be granted for any other use of the land that would prejudice its use as a waste management facility.

^eIntensification of use at existing waste management facility



4.21 The locations of the district sites are shown in figure 4.2, with more detailed site location plans shown in Appendix 2, including suggested waste management uses.

Explanation

4.22 Guidance in PPS10 indicates that it is necessary to safeguard sites allocated for waste management uses in the Waste DPD, that are considered essential for meeting the landfill diversion targets, and ensuring that the right types of treatment capacity come on line early on in the plan process. Although district site allocations benefit from an implied safeguarding by virtue of the allocation, and will be prioritised for waste management uses in preference to unallocated sites, many of these sites will also be suitable for other types of development, such as employment and may be within areas also allocated for employment purposes. Therefore, the allocation alone cannot be assumed to provide a means of safeguarding them from being developed in another way.

4.23 When determining applications for non-waste development on a district site specifically identified for waste management, or within a distance that could affect the potential for waste use on a site specifically identified for waste management, consideration will be given to any potential adverse impact the proposed development might have on the future of the site as a location for waste management and therefore, on the Waste DPDs aim and objectives.

4.24 If a development is likely to have an unacceptable impact on the future of the district site as a location for waste management the applicant will need to demonstrate that there is no longer a need for the allocated site for waste management use, that there is an overriding need for the non-waste development in that location, and/or that the waste management capacity provided by the allocation has been met elsewhere.

4.25 On adoption of the Waste DPD, proposals maps in district LDF documents will need to be amended to reflect site allocations in policy WM3.

Policy and Evidence Base References:

PPS10, Needs Assessment, Broad Site Search Report 2005, Built Facilities Site Selection Methodology, District UDPs and emerging Core Strategies, Merseyside LTP3, SA Scoping Objectives and Reports, Habitats Regulations Assessment.

4.3 Landfill Sites

4.26 Although the Waste DPD has adopted a Resource Recovery-led Strategy, there is a continuing requirement for some residual landfill for both inert and non-inert waste. The Needs Assessment has clearly identified that Merseyside and Halton will need access to substantial new landfill capacity early in the Plan period (to 2015) until the new treatment facilities needed to deliver the Resource Recovery-led Strategy are built and become operational. This requirement is additional to the capacity for LACW disposal via the current MWDA contract at Arpley, just outside of the sub-region.

4.27 The only operational, open gate^c site still accepting non-inert waste in Merseyside and Halton is Lyme and Wood Pits landfill in St.Helens. The site began operating as a landfill in June 2003, and will be restored to a Country Park. The site is currently permitted to accept 550,000 tonnes of waste per year including commercial, industrial and inert waste, and is owned and operated by Cory Environmental Ltd. The site is due to close in June 2012, although there remains a void space. The operators intend to submit a planning application to extend the timescale for operations but the Waste DPD cannot speculate on the outcome of this, and therefore, it has been assumed that the site will close in June 2012.

4.28 A search for sites with any potential for use as landfill has been undertaken, and full details of the site search methodology and results can be found in the supporting report 'Survey for Landfill in Merseyside and Halton'. As discussed in the evidence base section, the opportunities for new landfill across Merseyside and Halton are very limited because of a combination of planning and environmental constraints including:

- The underlying geology and hydrogeology is extremely sensitive to pollution risks, especially those arising from landfill of waste to groundwater^c resources including water abstractions and source protection zones^c.
- Most former quarries and minerals workings have already been used, reclaimed, developed or restored.



- There are very few operational minerals sites in Merseyside & Halton, and limited opportunities for new minerals workings in the sub-region, which would be suitable for landfill in the future.
- Much of Merseyside and Halton is densely developed for housing, commerce and industry.
- The extensive Green Belt.
- Much of Merseyside and Halton's Green Belt is constrained by other environmental designations
- Access and land use in the vicinity of some sites has changed in recent years adding additional constraints.

Inert Landfill

4.29 The constraints identified above, mean that the identification of new landfill opportunities for the sub-region has been severely limited. Two sites for inert landfill have been identified for allocation and these are shown in policy WM 4:

Policy WM 4

Allocations for Inert Landfill

The following sites have been allocated for provision of inert waste landfill.

Table 4.4

| Site ID | Site Name | Permitted Void Space (Million m ³) | Capacity (Million tonnes) |
|---------|------------------------------|--|---------------------------|
| K5 | Cronton Claypit, Knowsley | 0.75-1 | 1.5-2 |
| S3 | Bold Heath Quarry, St.Helens | 2.43 | 3.65 |

4.30 This means that the sub-region would be self sufficient for disposal of inert waste, although the availability of void space for both Cronton Claypit and Bold Heath Quarry is dependent on the extraction of minerals and the proportion of the void space to be infilled with overburden from the existing quarry operation. Both sites benefit from planning permission. Locations of the landfill sites are shown on Figure 4.2, and profiles for the two sites can be found in Appendix 2.

4.31 On adoption of the Waste DPD, proposals maps in district LDF documents will need to be amended to reflect site allocations in policy WM 4.

Non-Inert Landfill

4.32 The landfill site survey did not identify any future opportunities for non-inert landfill, which leaves a deficit in capacity for non-inert waste, even when the contracted LACW capacity at Arpley Landfill, Warrington is taken into account. Therefore, Merseyside and Halton will need to continue to rely on neighbouring authorities for landfill provision of non-inert waste.

4.33 As discussed in the evidence base section, Merseyside and Halton has liaised with neighbouring waste planning authorities regarding availability of non-inert landfill capacity. Unfortunately, each of the neighbouring WPAs have only accounted for their own needs when determining landfill capacity requirements, and are not in favour of making provision for Merseyside and Halton.

4.34 However, the waste management industry operates commercial contracts across local authority boundaries, and discussion with landfill operators across the region has been more positive with strong indications that the capacity requirements of Merseyside and Halton can be easily met within the region, although some of these sites will also be subject to planning applications extending timescales for landfill operations. The response from industry is backed up by the report, Nationally, Regionally and Sub-Regionally Significant Waste Management Facilities (October 2008), produced for the former Regional Assembly to support RSS, which indicates that landfill sites across the NW region should be considered as regionally significant facilities.



4.35 In addition to this reassurance from industry, the Waste DPD includes a criteria based policy WM15 enabling unallocated sites to be assessed for suitability as future landfill. Finally, the Waste DPD has also built in flexibility within its built capacity requirements to accommodate for waste that may be imported for treatment from outside the sub-region to compensate for residual waste which is exported to landfill, as illustrated in figure 2.8.

4.4 Additional Sites

Approach to Selecting Sites for Small-scale Waste Management Operations

4.36 Although the sites allocated in the previous sections are sufficient to provide for the waste management needs that have been identified for Merseyside and Halton, there remains the possibility that other development pressures and deliverability problems, which could not be reasonably foreseen during plan preparation, could reduce the capacity or number of sites available for waste management facilities during the plan period and therefore, alternative sites may need to be found. There is also a need to make further provision for waste-related development such as re-processing plants. Consultation responses supported the inclusion of areas of search where additional sites may be beneficially located, and this is consistent with PPS10.

Figure 4.1 Plastic Bottles to be Re-processed



4.37 A description of the spatial area in which additional sites may be located is set out in policy WM5 and the broad locations are illustrated on Figure 4.2.



Policy WM 5

Areas of Search for Additional Small-scale Waste Management Operations and Re-processing sites.

Additional sites that are required for waste-related re-processing activities and other small scale waste management facilities over and above those allocated for specific waste management uses will be considered favourably in the vicinity of the following areas of search:

- Halton : Industrial areas of Ditton / Widnes;
- Knowsley : Knowsley Industrial Park and Huyton Business Park;
- Liverpool : Industrial areas of the Liverpool North Docks;
- Sefton : Industrial areas of Bootle and the southern part of the Sefton Dock Estate;
- St.Helens : Abbotsfield Industrial Estate and industrial areas in the immediate vicinity;
- Wirral : Industrial areas associated with Cammell Laird Shipyard, Tranmere and the north bank of the West Float Docks.

There will be a presumption in favour of planning applications for waste re-processing and other small-scale waste management activities in these areas subject to satisfactory assessment of cumulative effects on local amenity and the continued viability of existing employment areas for a full range of appropriate uses and the tests identified in policy WM1 and other Waste DPD and LDF policies.

Explanation:

4.38 Since there are many planning constraints in a highly urbanised area such as Merseyside and Halton, additional Areas of Search provide guidance to planners and the waste management industry as to where constraints are likely to be fewer and further suitable development opportunities may be found for waste re-processing and other small-scale waste management activities. More details on re-processing activities can be found in appendix 1.

4.39 The purpose of Areas of Search is to provide a strategic steer for:

- Locating areas which are likely to be suitable for small-scale waste re-processing activities;
- Identifying areas which are likely to be suitable for the re-location of existing, small-scale waste management facilities that are required to move as a consequence of wider land use change and regeneration activities;
- Providing an opportunity for clustering of waste management activities where there are benefits in terms of economies of scale or synergistic waste management activities.
- Provide additional flexibility to the Plan.

4.40 The areas of search have been selected to fit with the spatial strategy, and are focused in industrial areas where there are existing clusters of waste management activity. In most districts these coincide with specific site allocations, as these areas were shown to be most sustainable during the site selection process, however, in other districts, a more focused area was identified to fit with their emerging Core Strategies and regeneration plans.

4.41 There are both positive and negative effects in co-locating sites, it can provide opportunities for synergies but intensification of use in those areas could also lead to negative cumulative effects for example with regard to traffic, and emissions like dust, noise and litter. The SA recommends that planning applications for additional sites should be accompanied by an analysis of potential cumulative effects, and will be addressed through the application of criteria based policies. This policy also provides the flexibility necessary to promote further growth in the waste sector and the creation of local employment opportunities.

4.42 Several major regeneration schemes are currently being developed across the sub-region e.g. Wirral and Liverpool Waters, Mersey Gateway which could result in substantial changes to the pattern and nature of existing land uses. Should existing waste uses need to be relocated as a consequence of future regeneration priorities, areas of search can also provide the basis for identifying suitable site locations in the first instance, to ensure that

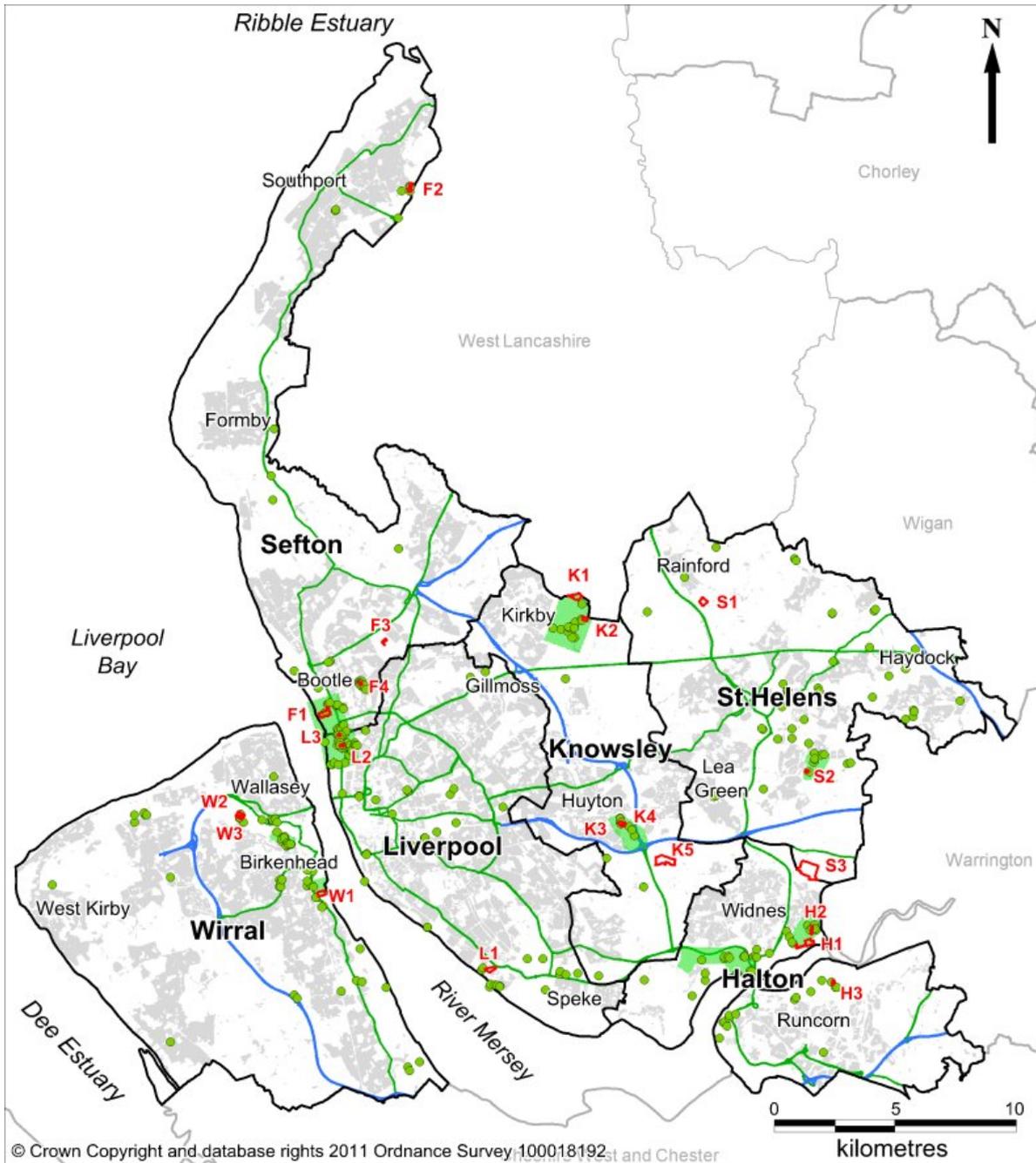


the waste treatment capacity delivered by existing operations is maintained. This policy approach also provide some additional flexibility in the Waste DPD to respond to the waste management needs of major regeneration schemes in the sub-region.

4.43 The broad Areas of Search and Waste DPD allocations are shown on Figure 4.2.



Figure 4.2 Waste DPD Site Allocations and Areas of Search



© Crown Copyright and database rights 2011 Ordnance Survey, 100018192, East and Chester

Site Allocations



Built Facilities

Sub Regional Sites

- H1 - Widnes Waterfront Site
- K1 - Butlers Farm
- L1 - Land off Stalbridge Road
- F1 - Alexandra Dock 1
- S1 - Land to SW of Sandwash Close
- W1 - Car parking/Storage Area, former Cammell Laird Shipyard

District Sites

- H2 - Eco-cycle Waste Ltd
- H3 - Runcorn WWTW
- K2 - Image Business Park
- K3 - Mainsway Ltd, Brickfields
- K4 - Former Pilkington Glass Works
- L2 - Site off Regent Road
- L3 - Lower Bank View
- F2 - 55 Crowland Street
- F3 - Land North of Farriers Way
- F4 - 1-2 Acorn Way
- S2 - Land North of TAC
- W2 - Bidston MRF/HWRC
- W3 - Former Goods Yard

Landfill Sites

- K5 - Cronton Claypit
- S3 - Bold Heath Quarry

Areas of search

- Existing waste site
- Motorway
- Primary route
- Residential area
- Merseyside and halton boundary



Policy and Evidence Base References:

PPS10, Needs Assessment, SA Scoping Objectives & Reports, Habitats Regulations Assessment.

Areas of Search for Household Waste Recycling Centres

4.44 The Merseyside Waste Disposal Authority (MWDA) is responsible for provision of Household Waste Recycling Centres (HWRCs) on behalf of the districts, and it operates a network of 14 HWRCs across Merseyside. In addition, to this there are a further two sites operated in Halton by Halton Council. Most districts have a well distributed network of HWRCs, although a number of the sites need upgrading or re-locating to maximise the role they play in re-use, recycling and recovery of waste, and to achieve recycling and composting targets set in the JMWMS.

4.45 Replacement sites have been identified for both Huyton and Kirkby HWRCs, and these have both received planning consent from Knowsley Council. Halton Council has indicated that the district site allocation in Runcorn may be used as a site to replace the existing HWRC. MWDA has not indicated a specific requirement for any other replacement HWRCs across the sub-region.

4.46 The Liverpool City Council area is currently served by only one operational HWRC site at Otterspool in South Liverpool, although many Liverpool residents make use of HWRCs in neighbouring authorities, such as South Sefton Recycling Centre, Huyton and Kirkby. MWDA generally aim to ensure that residents should only have to travel a reasonable distance (approximately 3km) to a HWRC. Therefore, there is a demonstrable need and identified requirement for one or more new HWRC sites within the City of Liverpool.

4.47 MWDA has not identified specific sites for any new HWRCs within Liverpool. Any required HWRC site would not be large (generally < 1 ha depending on local conditions and the need for on-site vehicle circulation areas), and could potentially be co-located with other waste management activities on larger sites.

4.48 To assist in the identification of new HWRC sites within the City of Liverpool, the Waste DPD has identified an area of search for this waste use.

Policy WM 6

Additional HWRC Requirements

New or replacement HWRCs within the boundary of the City of Liverpool should not be in close proximity to the existing HWRC at Otterspool or to existing HWRCs in other districts which are located close to the city boundary, and will be informed by the following criteria:

- population density;
- travel time from an existing HWRC; and,
- travel distance to an existing HWRC.

Proposals for new HWRCs will be expected to also comply with other policies within the Waste DPD.

Explanation

4.49 Identification of sites for HWRCs requires close working with MWDA, as they have specific locational requirements for HWRCs, and also some quite specific requirements in terms of site size, for example capacity to accommodate queueing traffic. There is a particular shortfall in Liverpool which has the highest population, but fewest number of HWRCs. MWDA has not indicated the number of new HWRCs required in Liverpool or identified any specific sites, therefore, having a policy which defines the needs for an additional HWRC was agreed to be helpful.



4.50 MWDA has indicated that a distance of approximately 3km is the general rationale for locating an even distribution of HWRCs, however other criteria are also considered. Importantly, population density is a factor since HWRCs can rationally be located close to the communities where there is a need for the facility. This also serves to minimise travel distances and reduce travel times to any facility, and enables communities to take responsibility for their own waste, subject to land availability.

Policy and Evidence Base References

PPS10, WS2007, JMWMS, Needs Assessment, SA Scoping Objectives and Reports



5 Development Management Policies

5.1 All planning applications for waste management facilities, including HWRCs must comply with the relevant policies of this DPD, and other relevant policies in the districts LDFs, in addition to national policy.

5.1 Protection of Existing Waste Management Capacity

5.2 PPS10 requires that planning facilitates the delivery of sustainable waste management by providing sufficient opportunities for new waste management facilities of the right type, in the right place at the right time. It also requires that planning authorities consider the likely impact of proposed non-waste development on existing waste management facilities and on sites and areas allocated for waste management. Where proposals would prejudice implementation of the Waste DPD then the proposals should be amended to make them acceptable or planning permission should be refused.

5.3 Alongside the specific site allocations, existing waste management facilities already form the majority of the waste management infrastructure and capacity in the sub-region. It is acknowledged that there will always be an element of flux in the waste management industry, however, there is a requirement for a certain level of waste management provision to meet the needs of Merseyside and Halton. The current operational waste management capacity and the site allocations are essential to meeting those needs. Without protection or safeguarding of existing facilities or site allocations then the waste management capacity would be vulnerable to non-waste development thus reducing the certainty of the Waste DPD meeting sub-regional waste management needs.

Policy WM 7

Protecting Existing Waste Management Capacity

Existing operational and consented waste management sites will be expected to remain in waste management use in order to maintain essential waste management capacity. Any change of use from waste management will only be allowed in exceptional circumstances, and will need to be justified by the developer by demonstrating that the waste use is:

- located in an inappropriate area;
- causing significant loss of amenity;
- that the lost capacity has been made up for elsewhere, or can be provided through existing site allocations.

Explanation

5.4 It is important that adequate waste management capacity is retained throughout the plan period. Therefore, it is proposed that a change of use from an operational permitted or consented waste management use would need to be justified by local circumstances by the applicant, and will be monitored through the Implementation and Monitoring strategy.

5.5 The vast majority of existing waste management facilities are located on industrial estates, or areas where their impact on local amenity is low. However, it is acknowledged that in the past some waste management infrastructure has developed in unsuitable locations. A change of use may only be acceptable on sites which are found to be in an unsuitable location as a result of new sensitive uses being developed around them, or because of a new regeneration scheme or a major scheme displaces them which will be deemed suitable for a change of use. It is noted that cessation of waste management activity at a specific site cannot be controlled through planning permission.

Policy and Evidence Base References

PPS10, Needs Assessment, SA Scoping Objectives and Reports, Habitats Regulations Assessment.



5.2 Waste Prevention and Resource Management

5.6 Waste prevention lies at the top of the waste hierarchy with the principal objective being to minimise the amount of waste produced in the first place, before considering how the waste is managed. Waste reduction and the control of waste growth is one of the biggest challenges in Merseyside and Halton. It is also the area of greatest importance in terms of effort, reducing cost of treatment and reducing the requirement for new sites and facilities.

5.7 Despite the importance of waste prevention in reducing the amount of waste that needs to be managed within the sub-region, there are limited opportunities for the planning system through the Waste DPD to influence it. One of the key ways it can assist is through the requirement for planning applications to consider waste management at the planning, design and construction phases. This principally influences the amount of construction, demolition and excavation waste produced and the way it is managed. Policy WM8 for Waste Prevention and Resource Management is shown below.

Policy WM 8

Waste Prevention and Resource Management

Any development involving demolition and/or construction must implement measures to achieve the efficient use of resources, taking particular account of:

- Construction and demolition methods that minimise waste production and encourage re-use and recycling materials, as far as practicable on-site;
- Designing out waste by using design principles and construction methods that prevent and minimise the use of resources and make provision for the use of high-quality building materials made from recycled and secondary sources;
- Use of waste audits or site waste management plans (SWMP), where applicable, to monitor waste minimisation, recycling, management and disposal.

Evidence demonstrating how this will be achieved must be submitted with development proposals of this type.

Explanation:

5.8 The Government wants sustainable waste management to go beyond the traditional remit of land use planning for waste management and address waste prevention in a more integrated way. The development management process is a key mechanism for delivering waste prevention and resource management practices on development sites. This can be achieved through binding legal agreements and the adoption of SWMPs.

5.9 Although there are limited opportunities for planning to influence waste prevention and resource management, it is considered important for the Waste DPD to act as a signpost for waste prevention issues including:

- Raising general awareness and understanding of waste issues;
- Raising the profile of waste prevention and the need to reduce the amount of waste produced across all activities and not just land use planning;
- Making the link between waste prevention and business resource efficiency.

5.10 Further benefits of the Waste Prevention and Resource Management policy include:

- Highlighting the statutory requirement for SWMPs for developments valued at greater than £300,000;
- Improving the rate at which we divert material away from landfill (which is particularly important for the sub-region);
- Promoting waste prevention and resource management to the widest possible audience, and not just those developers who are covered by the SWMP Regulations.



5.11 The adoption of more sustainable waste management practices is becoming an increasingly important consideration in terms of improving business performance and efficiency. It is fast becoming financially essential for competitive businesses to make better use of resources and spend less money on waste disposal. Examples include reducing the consumption of raw materials, manufacturing aggregates from waste materials and lowering transport and waste collection costs.

5.12 Evidence of how proposals are going to deliver the requirements of policy WM8 need to be submitted with any planning application. There are several mechanisms for doing this such as the Design and Access Statement, the SWMP (where applicable) or in a separate report.

Policy and Evidence Base References:

PPS10, Waste Strategy 2007, Site Waste Management Plan Regulations 2008, Needs Assessment, Issues & Options Report, Preferred Options Report, Sustainability Appraisal Scoping Objectives and Report.

5.3 Design and Layout for New Development

Sustainable Design of New Developments

5.13 National and regional guidance identifies that waste management must be considered in any new development alongside other planning issues, and therefore policy areas in the Waste DPD must be integrated with all the Districts' LDF documents. With respect to good design of new development, PPS10 requires the Waste DPD to consider two distinctly different elements:

- Detailed consideration of waste management in design and layout of all new development;
- Design and construction of high quality waste management facilities that not only manage waste in a safe and responsible manner but also carefully consider their impact on, amongst others, amenity, townscape, landscape and transport.

Integrating Sustainable Waste Management in the Design and Layout of New Development

In terms of influencing the design and layout of new development from a waste perspective this policy should help to move waste up the waste hierarchy in a local context by applying a best fit solution for each individual development, and by making it easier to recycle without having a negative effect on the street scene.

5.14 Policy WM9 for Sustainable Waste Management Design and Layout for New Development is shown below:

Policy WM 9

Sustainable Waste Management Design and Layout for New Development

The design and layout of new built developments and uses must, where relevant, provide measures as part of their design strategy to address the following:

- Facilitation of collection and storage of waste, including separated recyclable materials;
- Provide sufficient access to enable waste and recyclable materials to be easily collected and transported for treatment;
- Accommodation of home composting in dwellings with individual gardens;
- Facilitate small scale, low carbon combined heat and power in major new employment and residential schemes, where appropriate.

Explanation:

5.15 A significant proportion of Merseyside and Halton's population live in flats and terrace houses, or properties which were not constructed with multi-bin LACW collections in mind. Further to this, the size of the average household is decreasing, with the number of single person households set to rise. The 2001 National Census



figures indicated that approximately 33% of Merseyside households were single occupancy. This change in occupancy level is being reflected in the types and designs of new houses, with smaller properties and more apartments being built. This creates an ongoing challenge for sustainable urban design and modern sustainable waste management practices, particularly in terms of storage and collection of waste.

5.16 However, it is not just design and layout of new residential development which needs to consider these issues. It is equally important for new commercial and industrial developments and other employment ventures to consider opportunities for incorporating sustainable waste management principles into their proposals. This is particularly important as the larger the development, the greater the opportunities for incorporating and maximising sustainable waste management practices.

5.17 It is important to note that the type of recyclables collected and the method of collection is different in each district. Some districts have already expanded to cover kitchen food waste collections, and this may be rolled out more extensively as the targets to divert more waste from landfill increase. Therefore, reference should be made by the developer to the relevant Waste Collection Authority at the planning application stage, to ensure that proper consideration is given to the number and types of receptacle for waste collection.

5.18 The inclusion of space for home composting will not be appropriate in all developments, for example communal apartments/flats due to insufficient space or management implications. However, where possible home composting should be encouraged, as this is another means by which the Waste DPD can influence the amount of waste entering the waste stream.

5.19 It is important that measures incorporated to meet the requirements of this policy are practical and capable of implementation in order to maximise the benefits that can be achieved by non-waste development in delivering sustainable waste management.

Policy and Evidence Base References

5.20 PPS10, Waste Strategy 2007, District UDPs, Emerging District Core Strategies, Issues & Options Report, Preferred Options Report, Sustainability Appraisal Scoping Objectives and Reports.

5.4 Design and Operation of New Waste Management Facilities

5.21 The general negative, public perception of waste management facilities stem, in part, from the fact that in the past they were constructed with pure function in mind, and they were seen as poor quality, low technology development with little integration within their local setting, leading to a prevailing view that waste management uses are bad neighbours. This is understandable as significant impacts and amenity issues have arisen in the past and the negative perceptions continue to create issues and concerns.

5.22 It is therefore, considered important to the communities, businesses and local authorities of Merseyside and Halton that the Waste DPD specifically addresses the design and operational issues associated with waste management infrastructure.

5.23 Design is more than just the way something looks or whether it works, and there is no prescriptive approach to follow. Good design needs to be forward-looking and flexible to respond to future policy and legislative requirements, as well as advances in technology. This is particularly important for waste management facilities as technologies are rapidly changing and because of market forces for re-usable and recyclable resources. Merseyside and Halton also needs to maximise the employment and economic opportunities that waste management facilities offer within the context of a highly restricted supply of land for employment uses.

5.24 Policy WM10 covers the High Quality Design and Operation of New Waste Management Facilities.



Policy WM 10

High Quality Design and Operation of Waste Management Facilities:

All proposals for waste management facilities should ensure that the proposed design and environmental performance does not adversely impact on the locality and achieves the best performance possible. Proposals must demonstrate that:

- Environmental performance and sustainable design has been incorporated from the design stage, with the aim of achieving a minimum BREEAM rating of "very good" or equivalent standard for industrial buildings up to 2016. From 2016 to 2027, it is expected that all new waste management facilities should be achieving an "excellent" BREEAM rating or equivalent standard for industrial buildings;
- The design and appearance of the building takes account of its proposed location and its likely visual impact on its setting within the townscape or landscape;
- Unacceptable impacts on amenity are avoided.

Explanation

5.25 Whilst design policies would reasonably be expected to be addressed in District LDFs, feedback from consultations has indicated a preference for a Waste DPD policy covering design and operation of new waste management facilities. This view reflects the poor perception of waste management sites and their operations in the past. Therefore, to ensure that new waste management facilities and the modernisation or intensification of existing facilities address this issue in a pro-active manner, this policy has been included within the Waste DPD.

5.26 Sustainable waste management sites are allocated in existing industrial areas, where they will be neighbours with other business uses, such as B2 and B8 use classes. They must be designed and operated to a high quality standard to avoid any negative effects on amenity, public or investor confidence. Whilst modern waste management facilities are tightly regulated with high standards of environmental control, this tends to cover only the management and operations. The Waste DPD has a role to play in setting higher standards of design and limiting environmental impact of the building itself in order to avoid negative effects, including carbon future proofing.

5.27 With the exception of Household Waste Reception Centres (HWRCs), all other built waste management facilities that are to be located in industrial and business areas are processes that should take place within enclosed buildings. Uses include bulking, transfer, materials recovery facility (MRF), mechanical biological treatment (MBT) and thermal technologies. Waste management activities carried out in a purpose-built enclosed building substantially reduces potential issues associated with the activity, such as the impact of noise, dust, odour, visual intrusion, air and water pollution, vibration and litter. Many of the mitigation measures can form part of good design, although they are often required through planning and permitting conditions. However, to be most effective, it is important that developers consider environmental impacts, amenity issues and design requirements from the outset.

5.28 The Building Research Establishment Environmental Assessment Method (BREEAM) for Industrial Uses is a national recognised certification scheme which can be used for assessing the environmental performance of industrial buildings from the design through to the completed building stage. There are BREEAM assessments available (www.breeam.org) for a range of different construction types from new construction, through extensions, major refurbishments and fit-out of existing buildings. Therefore, use of this approach or an equivalent standard should be applicable to most types of waste management development.

5.29 Given the contentious nature of waste activities, and the generally negative perception of waste management facilities, it is considered that the Waste DPD should strive to achieve the best design and environmental outcome for all new waste management facilities. Therefore, initially it is proposed that all new waste management design facilities should achieve a BREEAM rating of "very good" up until 2016, and thereafter new facilities should be striving to achieve a BREEAM rating of "excellent". The BREEAM rating can be substituted with an alternative equivalent standard. This will assist the sub-region in achieving high quality development, and reduce the impacts waste management may have on inward investment and regeneration, which is important given the restricted land availability. The Defra/CABE document 'Designing Waste Facilities - a guide to modern design in waste' provides useful guidance on all aspects of waste management design.



5.30 Although, there are no agreed standards across the waste planning authorities of the sub-region for industrial development, for housing development there is agreement that the Code for Sustainable Homes standard should be set at very good up to 2016, and thereafter excellent, and so a similar approach has been applied for waste management facilities. Whilst it could be argued that other types of non-residential development are not being required to meet a particular BREEAM standard, there are few developments which are as contentious or rouse public opposition as waste management facilities. Consequently, it is reasonable that the waste management industry pays particular attention to this issue.

5.31 With regard to the visual appearance of new waste management facilities, the design requirements will depend on the location and type of waste management facility proposed and any local policies that are in place. Consideration also needs to be given to wider design issues such as, how the facility will harmonise with its setting and take account of its contextual setting and strengthens the identity of the neighbourhood, landscape and historic environment. There may be essential elements of the facility which could form an architectural feature, or it may be more appropriate for the new facility to blend with its proposed new location; in the case of an industrial estate, this may mean ensuring that sympathetic materials are used to those of surrounding industrial units.

Policy and Evidence Base References:

PPS10, Sustainability Appraisal Objectives and Reports, Issues & Options and Preferred Options Reports, BREEAM Documents, Defra/CABE document 'Designing Waste Facilities - a guide to modern design in waste'.

5.5 Sustainable Waste Transport

5.32 The Waste DPD cannot create a modal shift in how waste is transported, but can encourage alternatives to road transport via considered location of waste management facilities. Therefore, the impacts of waste transport have been an explicit consideration throughout the development of the Waste DPD. To begin with proximity to alternative modes of transport informed the overall spatial strategy. It was also one of the many criteria that has been used to positively select proposed new sites for waste management facilities, including proximity to rail heads, dock and canal systems. Approximately 40% of the proposed allocations have the potential to use alternative modes of transport through proximity to railways, dock, river or canal systems, or where the site is large enough for co-location and there is potential for waste to move around the site using pipes or conveyors. Although, in some cases, this may require considerable infrastructure investment on the part of the developer which may affect deliverability and/or feasibility. The site selection methodology has also positively selected access to public transport in terms of getting potential employees to and from new waste facilities.

5.33 In addition, a policy WM5 on Areas of Search for small-scale waste sites has been developed which directs this type of development towards clusters of other waste uses within industrial locations, thereby creating potential synergies between waste sites and re-processors, which should lead to fewer and shorter vehicle movements between sites. Transport issues are also incorporated into the development management policies. All of the above has been informed by the SA which includes transport-related objectives as part of the assessment process.

5.34 Nevertheless, within Merseyside and Halton there are very few operational and/or permitted waste management facilities capable of accepting waste by alternative modes of transport other than by road. Consequently, there is a heavy reliance on road transport for waste collection, even if waste is then moved on by rail or water for part of the treatment and/or disposal. Waste transported by road can potentially have a significant impact in terms of congestion, nuisance, highway safety and maintenance, and emissions to air, particularly where heavy goods vehicles use minor roads. Therefore, diverting waste movements away from the existing road network and onto more sustainable, alternative modes of transport needs to be encouraged wherever technically possible, and economically viable to do so. Air Quality is also a consideration as several of the proposed site allocations are within or close to Air Quality Management Areas (AQMAs), or in areas close to air quality thresholds.

5.35 Merseyside and Halton benefits from extensive dock facilities, railheads and potential for barge movement of waste by water by using the Mersey Estuary and the Manchester Ship Canal. Therefore, there are opportunities to take advantage of alternative modes of transport, whilst acknowledging other economic and feasibility limitations. It is also important for the Waste DPD to ensure that the amenity and carbon impacts of waste transport by all modes should be minimised and mitigated for as far as possible.



Policy WM 11

Sustainable Waste Transport

All proposals for new waste management facilities (or extensions to an existing waste management facility) will be expected to meet the following criteria:

- Make use of alternatives to road transport for movement of wastes (such as water and rail transport and, where appropriate, use of pipelines and conveyors to neighbouring sites), wherever possible.
- Ensure there are sustainable choices of travel for its employees and visitors (such as, walking, cycling, public transport).
- Provide mitigation for the effects of road transport on local amenity including use of screening, sound insulation and time tabling traffic movements.
- Ensure safe access to and from the public highway and adequate capacity of local highway infrastructure.
- Reduce the impact of transport on climate change and carbon emissions.

Where development proposals cannot fulfil any of the requirements of the policy, then the planning proposal must provide justification.

Explanation

5.36 The purpose of the policy is to encourage alternative modes of transport for as many facilities as possible, although it is acknowledged that depending on where the waste resource is going larger, strategic facilities will offer greater potential due to scale, tonnages and economics. Nevertheless, development of new wharfs and railheads at larger, sub-regional sites which are likely to manage large quantities of waste, may justify for development of new transport infrastructure and could also act as a catalyst for other smaller facilities to cluster and locate in the near vicinity. This would increase the potential for treatment facilities to be accessible by alternative modes of transport. Sustainable transport issues should be considered for all waste management development, on both allocated and unallocated sites, including areas of search.

5.37 The requirements of this policy will be assessed using a number of criteria. Applicants will be required to carry out a site-specific evaluation of the potential for transporting waste or waste related products by means other than road transport, taking account of:

- site location;
- type and volume of materials being transported;
- availability of existing non-road infrastructure;
- integration with other sites;
- financial viability;
- appropriate routing & access to the site.

5.38 This can be reported in a Design and Access Statement or Transport Assessment, whichever is most appropriate. Applicants may also be required to prepare and implement a staff travel plan, and a vehicle movement management plan in accordance with relevant district LDFs and the LTPs.

Policy and Evidence Base References:

PPS10, Merseyside Local Transport Plan 3, Halton LTP, District UDPs and emerging Core Strategies, Sustainability Appraisal Objectives and Reports, Ensuring Choice of Travel SPD.



5.6 Criteria for Waste Management Development

5.39 Compliance with policy WM12 Criteria for Waste Management Development will maximise opportunities for ensuring that waste planning applications are submitted with appropriate information to enable the impacts of the proposal to be adequately assessed, therefore improving the efficiency and certainty of the planning process.

Policy WM 12

Criteria for Waste Management Development

All proposals for new waste management development (including landfill) and alterations/amendments to existing facilities will be expected to submit a report covering the general details of the proposed development and a written assessment and mitigation of the short, medium, long-term and cumulative impacts on its neighbours and the surrounding environment in terms of the:

- Social, economic and environmental Impacts on the area;
- Amenity Impacts;
- Traffic (& transport) Impacts;
- Heritage & Nature Conservation Impacts;
- Overall Sustainability of the proposals (including carbon and energy management performance);
- Hydrogeological/Hydrological/Geological Impacts (for landfill and open windrow composting only).

Applications should refer to Box 1 which lists the general information that must be submitted with all waste applications and criteria which should be included in the assessment of impacts.

Explanation

5.40 Policy WM12 requires that all key issues are addressed at the outset, therefore providing greater confidence to local planning authorities and communities, that the proposals would be high quality operations, and that any likely impacts will be appropriately controlled. For any waste management development, the developer should undertake pre-application discussions with the local planning authority and local community prior to submission of a formal planning application. This will help to ensure that all the necessary information is submitted with the planning application for the purposes of consultation, and make sure that the planning process is in conformity with the district's Statement of Community Involvement.

5.41 Waste management facilities have the potential to impact both positively and negatively on the area in which they are located. They vary greatly in the types and volumes of waste that they manage, the hours that they operate, access and storage on site, for example. Landfill also has specific long term issues which need to be managed.

5.42 Therefore, the criteria in WM12 that will need to be addressed for any planning application for a waste management facility whether it is a new development or alteration or amendment of an existing waste management facility. This will also include the requirement for an assessment of the potential short, medium and long term and cumulative impacts of the proposal on the site and its surroundings.

5.43 Some of the criteria listed may be considered to be quite general and applicable to many types of non-waste application, and the Waste DPD has tried to avoid duplicating criteria that will be listed either in Core Strategy DPDs, or other district DPDs. Planning applications for waste uses typically raise particular concerns with their neighbours and communities in which they sit, related to traffic, noise, odour, dust and litter and other disturbances. Consequently, although the impacts covered in the policy, and the criteria listed in box 1, include some general criteria, this is to demonstrate that the development of the Waste DPD has been alive to the concerns of communities and stakeholders, and that impacts which are particularly controversial for waste applications are dealt with by the Waste DPD.



5.44 Many of these issues will typically need to be assessed by the Environment Agency (EA) as part of the Environmental Permitting process too. However, there should not be significant duplication of effort or cost for the applicant in providing this information at the planning application stage if it is within the remit of Environmental Permitting. This type of information is often referred to as the Working Plan for the site. The criteria will not necessarily be controlled by planning, but through other legislative controls, however, many of them are important in determining acceptability of a proposal from a planning perspective.

5.45 Certain types and scale of waste management facility will be required to produce a statutory Environmental Impact Assessment (EIA) under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999. Requirements for individual EIA are assessed on a site specific basis across the six districts of the sub-region. For those applications which require Statutory EIAs, there would be a requirement to cover all the potential impacts included in this policy along with any other site specific impacts which may need to be addressed under EC Directives. This will provide consistency with the requirements being made on applications for waste management facilities that do not require statutory EIA.

5.46 This policy will ensure that waste management planning applications are dealt with consistently through an agreed sub-regional policy framework, and therefore it is advisable for all waste proposals to request a screening opinion in line with the EIA Regulations, and at the earliest opportunity.

Applications for Open Windrow Composting Facilities

5.47 Open windrow composting does not sit comfortably with either built facilities or landfill facilities. Although they are open air and therefore have a stronger relationship with landfilling activities, and tend to be located on the urban fringe or in the countryside. Composting activities can be similar to other rural industries but commercial scale waste composting is likely to be classed as inappropriate development in the Green Belt. In such cases, very special circumstances need to be demonstrated to justify that such facilities do not damage visual amenity by virtue of its siting, layout and design.

5.48 Open air windrow composting schemes have a minimal requirement for new or existing buildings, typically only for a site office and compound areas. Because composting activities are similar to other rural industries the siting of such facilities in the Green Belt may be considered acceptable, since they preserve the openness of the Green Belt in line with paragraph 3.4 of PPG2. Activities may also be acceptable on operational landfill sites where the composting forms part of the restoration process, but would not be allowed to continue beyond the restoration phase.

5.49 There are some particular issues associated with open windrow composting, such as creation of bioaerosols⁶ which require a buffer zone to be maintained between the facility and any sensitive receptors including houses, hospitals, schools etc., in line with Environment Agency guidance. They also produce a leachate⁶ which needs managing and require a large area of land to enable turning of the compost which keeps air flowing through the compost and speeds up the process.

5.50 Although a separate policy is not considered necessary for assessing open windrow composting sites, planning applications or change of use to open windrow composting will only be considered acceptable if the site selection process includes consideration of the existing and surrounding uses of the site, and compliance with this policy (WM12) and policy WM13.



Box 1

Information to be Submitted in Support of a Waste Planning Application for Policy

General Information

1. A Statement of pre-application discussion regarding the proposal with the Local Planning Authority and details of community engagement.
2. The nature, volume and tonnages of each waste material to be accepted at the facility having reference to the European Waste Codes.
3. The duration of operations and hours of working.
4. Details of off-street space for all deliveries, collections and storage of materials together with associated parking.
5. Details of residual waste arising from the process.
6. Design details.
7. Proposals for dealing with:
 - Noise, odour, dust;
 - Birds & vermin;
 - Litter.

Environmental and Amenity Impacts

1. Impacts on Air quality.
2. Impacts to controlled waters.
3. Ground stability (where applicable).
4. Impacts on Agricultural land (where applicable).
5. Soil quality (where applicable).
6. Flood Risk and drainage issues (particularly associated with hazardous waste facilities).
7. Impacts on existing and proposed neighbouring land uses.
8. Aerodrome safeguarding (for landfill and Energy from Waste facilities or any waste use that has tall buildings or processes that may attract birds, or employ technologies which may affect navigation systems).
9. An assessment of cumulative impacts associated with nearby waste management activity or industrial processes.
10. Potential effects on human health.

Traffic & Transport Impacts

1. Broadly where the waste is coming from (and where it will go to if it is an intermediary facility) and how it will be transported (locally, regionally, nationally).
2. Number of traffic movements generated daily and tonnages of waste per vehicle movement.
3. Types of vehicles to be used and proposed routes for accessing the site.

Heritage and Nature Conservation Impacts

1. Measures to safeguard and enhance existing and potential archaeological, heritage and conservation interests
2. Measures to safeguard and enhance ecological, geological, geomorphological and landscape features of interest at the site.
3. With respect to nature conservation, project-level HRA screening will be required for any site within 1km of an internationally designated site and the applicant will be required to provide sufficient evidence to enable HRA screening to be undertaken.

Sustainability Impacts



1. Carbon performance of the proposed development and operations (including transport), especially for thermal treatment.
2. Contribution the proposal will make to adapting to and reducing the impacts of climate change.
3. A Statement of how the proposed facility will contribute to the waste management self sufficiency of Merseyside and Halton.
4. An economic assessment of the proposed facility (e.g. creation of jobs (including number during construction and operation and skills levels), impacts on local economy).
5. An energy statement.

Landfill and Open Windrow Composting Specific Impacts

1. Consideration of requirements for ancillary development in future stages of the development e.g. Landfill gas flaring (landfill only).
2. Details of restoration of the site and suitable provisions for aftercare and monitoring, including, where appropriate, the long-term management of leachate and gas emissions.
3. Hydrogeological, hydrological and soil permeability characteristics.
4. Provide evidence that the development will not increase NOx levels in the vicinity (applies to non-inert landfill sites within 1km of an internationally designated site only)
5. Propose bird-scaring measures appropriate to the individual site (applies to non-inert landfill sites within 5km of an internationally designated site only)

Policy and Evidence Base References:

PPS10, Issues and Options Report, Preferred Options Report, Sustainability Appraisal Objectives and Report, District UDPs and Core Strategies, Habitat Regulations Assessment.

5.7 Waste Management Applications on Unallocated Sites

5.51 It is inevitable that availability of sites will change over time. For example, some of those we have identified may become unavailable because they will be used for other purposes. In other instances, landowners and developers may propose new locations for waste management facilities that do not appear on the Site Allocations Map which accompanies this Waste DPD or take advantage of possible windfall sites that may come forward during the plan period, and these will also be considered in line with policy WM1.

5.52 Some waste management planning applications are submitted as a change of use to an existing industrial activity, under the terms of the Town and Country Planning (Use Classes) Order 1987. This is most likely to occur if the existing use of the site is classed as B1/B2 or B8 industrial use. Although B1 activities are restricted in terms of impact on residential areas, several waste management activities have been deemed to be classed as B2 general industrial use. Impacts on neighbouring uses are a particular issue arising from change of use to waste management use.

5.53 There may also be instances where the needs assessment or spatial need changes and a particular type of waste management operation which was not previously considered necessary may be supported. Bearing all these points in mind, this policy WM14 deals with Planning Applications for New Waste Management Facilities on unallocated sites to provide the Waste DPD with sufficient flexibility to take account of these changes.



Policy WM 13

Planning Applications for New Waste Management Facilities on Unallocated Sites

Planning permission will only be granted for additional waste management facilities on unallocated sites where the applicant has provided written evidence to demonstrate:

- That a suitable allocated site is not available or suitable for their proposed use;
- That the proposed site can be justified against the criteria for built facilities used in the site selection process for allocated sites shown in table 5.1;
- The site will be sustainable in terms of its social, economic and environmental impacts and this has been demonstrated through Sustainability Appraisal and Habitats Regulations Assessment Screening at the project-level;
- The proposal complies with the vision and spatial strategy for the Waste DPD and satisfies criteria in policy WM1 and WM12.

Full details of the criteria and scores used as part of the site assessment process for allocated sites is shown in Table 5.1. Reference should be made to this to ensure that the correct criteria are being applied consistently. For this reason, it is important that early pre-application discussions are held with the local planning authority, and that the method used and results of the assessment should be submitted with the application.

Explanation

5.54 A detailed site assessment process has informed the site allocations for built facilities. A high degree of agreement has been achieved on the criteria and site assessment process through public and stakeholder consultation. Full details of the site assessment process is available as a supporting document - The Built Facilities Methodology Report. It is essential that the evaluation of any additional sites is consistent with the approach used for identifying the allocated sites, in order that the assessment is objective and transparent.

5.55 Table 5.1 shows the criteria and relevant scores that have been used to assess the allocated sites, however, the scoring process has only been part of the site selection process as a deliverability assessments, Habitats Regulation Assessment and Sustainability Appraisal has also been carried out for each site. The deliverability assessment should cover land ownership issues, availability of utilities on site and any council planning aspirations for the site/area.

5.56 The HRA indicates that there should be a buffer zone of at least 200m between the nearest boundary of the site and any internationally designated site to limit any increases in nitrogen deposition. Closer separation should only be permitted if it can be demonstrated that the impact of the facility on the designated site will be inconsequential.

5.57 It should be noted that the Waste DPD site selection process has assessed whether the site will have an impact on each of the criteria individually. By adopting a consistent approach to the assessment of proposed new sites with that of allocated sites, it will enable all waste management sites to be assessed on an equitable basis. This approach is supported by the SA.



Table 5.1 Table : Site Selection Criteria for Built Facilities

| Criteria | Zone 1 | Score | Zone 2 | Score | Zone 3 | Score | Zone 4 | Score | Zone 5 | Score | Zone 6 | Score |
|--|--------------|-------|--------------|--------|-------------|-------|----------|-------|----------|-------|---------|-------|
| Listed buildings; Parks and gardens; SAMS | within | -50 | 0-100m | -10 | 100-250m | -5 | >250m | 0 | | | | |
| SACs SPAs & Ramsar; NNRs & SSSIs; WHS; Residential areas; Schools; Hospitals; Food processing plants | within | -50 | 0-100m | -25 | 100-250m | -20 | 250-500m | -10 | 500m-1km | -5 | >1km | 0 |
| Nitrate Vulnerable Zones | within | -2 | outside | 0 | | | | | | | | |
| Prime Agricultural Land | within | -15 | outside | 0 | | | | | | | | |
| Controlled surface waters; Green Belt | within | -15 | 0-100m | -5 | >100m | 0 | | | | | | |
| Indicative Floodplain | Flood Zone 3 | -15 | Flood Zone 2 | -10 | outside | 0 | | | | | | |
| Groundwater source protection zones | Risk zone 1 | -15 | Risk zone 2 | -10 | Risk zone 1 | -5 | outside | 0 | | | | |
| Ancient Woodlands; LNRs; Local biological & geological sites; Conservation areas; AQM/As; Green & open public space | within | -15 | 0-100m | -10 | 100-250m | -5 | outside | 0 | | | | |
| Unsuitable land allocation (B1 allocations); Public rights of way; Notifiable hazard zone (COMAH sites) | within | -5 | outside | 0 | | | | | | | | |
| Aerodrome safeguarding zone | within -15 | 0-5km | -2 | 5-13km | -1 | >13km | 0 | | | | | |
| Major road junction | within 1km | +15 | outside | 0 | | | | | | | | |
| Previously developed land | within | +15 | outside | 0 | | | | | | | | |
| Large energy customer zone | within 500m | +10 | 500m-2km | +5 | outside | 0 | | | | | | |
| Current landfill; Industrial areas; Proximity to railway sidings; Proximity to canals; Proximity to docks; Access to public transport (bus); Access to public transport (rail) | within | +15 | 0-100m | +10 | 100-250m | +5 | >250m | 0 | | | | |
| Proximity to unemployment areas; Proximity to strategic routes | within | +15 | 0-100m | +12 | 100-250m | +10 | 250-500m | +5 | 500m-1km | +2 | outside | 0 |
| Other operating waste site | co-located | +20 | 0-100m | +15 | 100-250m | +10 | 250-500m | +5 | >500m | 0 | | |
| Proximity to waste arisings (town centres) | within | +20 | 0-100m | +15 | 100-250m | +12 | 250-500m | +10 | 500m-1km | +5 | >1km | 0 |



Policy and Evidence Base References

PPS10, Issues & Options Report, Preferred Options Report, Sustainability Appraisal Reports and Scoping Objectives, District UDPs and emerging District Core Strategy DPDs, Built Facilities Site Search Methodology, Habitats Regulations Assessment.

5.8 Energy from Waste

Energy from Waste Provision

5.58 Merseyside and Halton is in the unusual position of having a significant amount of consented and available EfW capacity within the sub-region which exceeds the identified EfW management need by over 450,000 tonnes of refuse-derived fuel (RDF). Whilst there is no guarantee that all the consented capacity for EfW will either be built or be available to Merseyside and Halton, there is sufficient capacity to meet the identified needs.

5.59 Since the Preferred Options Consultation, MWDA has also narrowed its Resource Recovery procurement process down to the final two bidders, both of whom are proposing to use consented facilities outside the sub-region. Therefore, the requirement to allocate sites for EfW specifically for LACW is removed. Policy WM14 on Energy from Waste Provision is shown below:

Policy WM 14

Energy from Waste

No new sites for large scale Energy from Waste for Local Authority Collected Waste or Commercial and Industrial Waste are allocated. Reliance will be placed on existing consents and operational facilities within Merseyside and Halton, the outcome of the MWDA procurement process and the capacity in the wider Northern region of England to meet the identified needs.

Small Scale Energy from Waste Facilities

Applications for small scale EfW facilities, up to a maximum of 80,000 tpa treatment capacity or up to a maximum of 10MW heat and power output, which can be demonstrated to serve an identified local need, such as providing an existing business with significant energy requirements, or a district heating scheme to provide affordable warmth, will be considered subject to compliance with policies WM12 and WM13.

Explanation

5.60 Within Merseyside and Halton the existing regionally significant facility at Ineos Chlor has over 250,000 tonnes of permitted capacity available to treat Solid Recovered Fuel / Refuse Derived Fuel (SRF/RDF) processed from approximately 500,000 tonnes of residual waste. There are also several other consented facilities with a lesser capacity. Throughout the development of the Waste DPD there has been regular liaison with the owners of these facilities and there is reasonable assurance that these sites will be developed.

5.61 The policy is responding to the evidence base which clearly demonstrates that Merseyside and Halton has sufficient EfW capacity to meet its LACW and Commercial and Industrial Waste (C&I) needs, and that it also has some capacity to contribute to regional capacity needs. This takes account of the fact that the final bidders for the MWDA PFI contract intend to utilise facilities outside the sub-region, but that the corresponding amount of EfW capacity in Merseyside and Halton will be available for other sub-regions either to manage LACW or C&I wastes, as is the case with the Ineos Chlor facility.

5.62 A significant proportion of this consented EfW capacity is currently targeted at C&I waste via merchant facilities, and the Needs Assessment indicates that there is no justification for allocating further sites within the Waste DPD for this purpose. The industry can use a combination of operational capacity and current planning consents to meet the identified need through, for instance, commercial contracts.



5.63 Allocation of sites for further EfW capacity, if they were built, would inevitably lead to the import of substantial amounts of waste and RDF into Merseyside & Halton over and above existing imports and those which will take place if consented capacity is delivered. Whilst it is acknowledged that Merseyside and Halton will need to continue exporting some waste to landfill, and that the MWDA PFI contract will result in waste being exported, this has been balanced by residual waste being imported from neighbouring planning authorities, allocating additional sites for treatment, and the existing consented EfW capacity. Furthermore, the needs assessment also indicates that Merseyside and Halton is much closer to achieving self sufficiency than it was several years ago.

5.64 Some concerns were also raised at Preferred Options stage with respect to health implications associated with EfW Facilities. Health concerns have not been upheld at recent Public Inquiries into proposed EfW facilities where the Health Protection Agency have indicated that there is no proven health risk associated with EfW. This is also shown in the Evidence Base through the study 'Health Effects of Waste Management' (Richard Smith Consulting Ltd).

5.65 Should applications for small scale EfW facilities (up to a maximum of 80,000 tpa treatment capacity or up to a maximum of 10MW heat and power output) come forward in the form of combined heat and power to serve a local need such as an existing business with significant energy requirements or a District heating scheme then criteria based policy will be used to judge such applications on their merits. In this event then policy WM12 and WM13 will apply.

5.66 These figures (80,000 tpa treatment capacity and 10MW heat and power output) have been derived from experience of planning applications, the economic viability of operations and typical heat and power outputs that would enable a EfW to contribute a reasonable proportion of renewable energy for business energy requirements or district heating schemes.

5.67 Applications for Energy from Waste facilities should demonstrate the facility will not have an adverse air quality effect on internationally designated sites within a 10km radius. This should be accomplished through a project-level HRA screening and will need full appropriate assessment in the event that significant impacts are identified.

5.68 The intention is that small scale EfW facilities would serve a local need, both in terms of using local waste as fuel, and to provide heat and power to local businesses enabling them to operate efficiently in Merseyside and Halton. Alternatively, so that waste can be used to provide heat for district heating schemes, thus providing affordable warmth and energy security to residents, and allowing the negatively perceived waste industry to make a positive contribution back to local communities.

5.69 Enabling provision of small scale EfW facilities (within strict policy parameters) within Merseyside and Halton adds flexibility to the Waste DPD, by providing scope for the sub-region to become more self sufficient in waste management, and promoting a low carbon economy.

5.70 This approach is supported by the SA, which judges these policies to be in line with sustainability principles and has potential to lead to a more sustainable approach to the management of waste.

Policy and Evidence Base References:

PPS10, MWDA Resource Recovery Procurement Contract, Sustainability Appraisal Objectives and Report, Needs Assessment, Habitats Regulations Assessment.

5.9 Development Management Policy for Landfill

Assessing Planning Applications for Landfill

5.71 The 'Survey for Landfill in Merseyside and Halton' Report (see supporting documents) has shown that there is some opportunity for inert waste landfill. The opportunity for future landfill of non-hazardous, non-inert waste in the sub-region is very constrained, therefore, there will be continued reliance on neighbouring sub-regions for this purpose. In order for the assessment of proposed new landfill sites to be transparent, it is important that a policy approach is established. Therefore, policy WM15 deals with landfill applications on unallocated sites.



Policy WM 15

Landfill on Unallocated Sites

Planning permission will only be granted for additional landfill on unallocated sites where it is demonstrated that:

- The proposal can be justified against the criteria used for the Waste DPD site selection process for landfill sites shown in table 5.2;
- That the proposal complies with vision and spatial strategy for the Waste DPD and satisfies the criteria set out in policy WM12;
- Sustainability Appraisal and Habitats Regulation Assessment have been undertaken at the project level and any negative effects can be satisfactorily mitigated for, and;
- That it contributes to the identified need for residual landfill capacity.

Full details of the criteria used as part of the site assessment process for allocated landfill sites can be found in Table 5.2. Reference should be made to this to ensure that the correct criteria are being applied consistently. For this reason, it is important that early pre-application discussions are held with the local planning authority, and that the method used and results of the assessment should be submitted with the application.

Explanation

5.72 Although Merseyside and Halton can demonstrate that they are contributing to the regional waste infrastructure needs for built facilities, due to the urban nature of the sub-region, the relatively restricted minerals and aggregate industry and its underlying geology/hydrogeology, it is difficult to identify sites which may be appropriate for landfill, particularly non-inert landfill. Currently, Merseyside and Halton are exporting considerable amounts of non-inert waste to neighbouring authorities, and obviously this is a concern for those affected.

5.73 The volumes of waste requiring landfill disposal are already decreasing as a consequence of higher rates of diversion from landfill, principally through recycling, and as new built, treatment facilities come on line. Decreasing rates of landfill are raising concerns for existing landfill operators, as landfill sites are not filling quickly enough to allow them to complete and restored within their permitted time frames. This is likely to result in applications for time extensions for many of the North West's landfills, although there is no guarantee that time extensions will be granted, if time extensions are consented there may not be a regional requirement for significant new landfill capacity. Nevertheless, it is important that Merseyside and Halton has a robust policy to assess new landfill opportunities on unallocated sites.

5.74 This approach is applicable to both inert and non-inert landfill, and was supported at the Preferred Options consultation and by the Sustainability Appraisal. The HRA indicates that there should be a buffer zone of at least 200m between the nearest boundary of the site and any internationally designated site to limit any increases in nitrogen deposition. Closer separation should only be permitted if it can be demonstrated that the impact of the facility on the designated site will be inconsequential.

5.75 Table 5.2 shows the criteria and relevant scores that have been used to assess the allocated landfill sites, however, the scoring process has only been part of the site selection process as a deliverability assessments, Habitats Regulations Assessment and Sustainability Appraisal has also been carried out for each site.



Table 5.2 Table : Site Selection Criteria for Landfill Facilities

| Criteria | Zone 1 | Score | Zone 2 | Score | Zone 3 | Score | Zone 4 | Score | Zone 5 | Score | Zone 6 | Score |
|---|--------------|-------|--------------|-------|-------------|-------|----------|-------|----------|-------|--------|-------|
| Listed buildings; Parks and gardens; SAMS | within | -50 | 0-100m | -10 | 100-250m | -5 | >250m | 0 | | | | |
| SACs SPAs & Ramsar; NNRs & SSSIs; WHS; Residential areas; Schools; Hospitals; Food processing plants | within | -50 | 0-100m | -25 | 100-250m | -20 | 250-500m | -10 | 500m-1km | -5 | >1km | 0 |
| Nitrate Vulnerable Zones | within | -2 | outside | 0 | | | | | | | | |
| Prime Agricultural Land | within | -5 | outside | 0 | | | | | | | | |
| Controlled surface waters | within | -15 | 0-100m | -5 | >100m | 0 | | | | | | |
| Indicative Floodplain | Flood Zone 3 | -15 | Flood Zone 2 | -10 | outside | 0 | | | | | | |
| Groundwater source protection zones | Risk zone 1 | -50 | Risk zone 2 | -10 | Risk zone 1 | -5 | outside | 0 | | | | |
| Ancient Woodlands; LNRs; Local biological & geological sites; Conservation areas; AQM/As; Green & open public space | within | -15 | 0-100m | -10 | 100-250m | -5 | outside | 0 | | | | |
| Unsuitable land allocation (B1 allocations); Public rights of way; Notifiable hazard zone (COMAH sites) | within | -5 | outside | 0 | | | | | | | | |
| Aerodrome safeguarding zone | within | -15 | 0-5km | -2 | 5-13km | -1 | >13km | 0 | | | | |
| Major road junction | within 1km | +15 | outside | 0 | | | | | | | | |
| Previously developed land | within | +10 | outside | 0 | | | | | | | | |
| Large energy customer zone | within 500m | +10 | 500m-2km | +5 | outside | 0 | | | | | | |
| Former landfill; Former mineral extraction site; Current mineral extraction site | within | +15 | outside | 0 | | | | | | | | |
| Current landfill | within | +20 | outside | 0 | | | | | | | | |
| Other operating waste site; Proximity to railway sidings; Proximity to canals; proximity to docks | co-located | +15 | 0-100m | +10 | 100-250m | +5 | outside | 0 | | | | |
| Proximity to strategic routes | Co-located | +15 | 0-100m | +12 | 100-250m | +10 | 250-500m | +5 | 500m-1km | +2 | >1km | 0 |
| Proximity to waste arisings (town centres) | within | +20 | 0-100m | +15 | 100-250m | +12 | 250-500m | +10 | 500m-1km | +5 | >1km | 0 |



Policy and Evidence Base References:

PPS10, Needs Assessment, Survey for Landfill in Merseyside and Halton Report, Preferred Options consultation, PINS Frontloading Visit Report, Habitats Regulations Assessment.

5.10 Restoration and Aftercare

5.76 The development of waste management facilities can potentially have significant landscape and visual impacts. In order to reduce the scope and scale of any impact, and to ensure the sustainable use of land, it is necessary to ensure that sites can be satisfactorily reclaimed, and that such reclamation is not unduly delayed. For built waste management facilities, these activities will be controlled by the Environmental Permitting process. For landfill operations, it is important for the Waste Planning Authority to be involved and agree an after-use and restoration plan.

5.77 It is therefore important for landfill operators to understand what will be expected with respect to restoration and aftercare proposals. This information is laid out in policy WM16.

Policy WM 16

Restoration and Aftercare of Landfill Facilities

The Local Planning Authority will require applicants to submit a plan for the restoration and aftercare of land affected by proposals for landfill before planning permission is granted. The plan must include the following information:

- Details of the proposed after-use and landscaping of the site;
- Demonstration that pre-application consultation has taken place with the community in which the site is located;
- Details of the type of material to be used for filling and that the degree of compaction is compatible with the proposed after-use;
- Scaled drawings of existing and finished contours including pre and post settlement contours;
- How the landfilling scheme contributes to the landform and landscape quality on completion in accordance with any adopted landscape character assessment;
- Timescales for both operational and restoration phases of landfill and details of phased restoration;
- Suitable provision for aftercare and monitoring including, where appropriate, long term management of leachate and gas emissions;
- Energy recovery proposals (where technically feasible);
- Protocols outlining how damage to restoration caused by subsidence or access to gas and other infrastructure can be addressed, such as interim restoration;
- Details of long term funding mechanism for realising the aftercare and restoration proposals including legal agreements (or through financial provision agreement with the Environment Agency);
- Long term environmental management and ecology plan.

Explanation:

5.78 Land taken for landfill activities must be restored and completed at the earliest practicable opportunity and within the timescale permitted by the planning consent, as long term continued landfill of sites can have a serious detrimental impacts upon the amenities of adjacent communities. The restored landfill site must be made capable of supporting an acceptable after-use. Wherever possible the after-use should benefit the community in which it sits, although the after-use for a site may well vary according to its location, and the context of its setting. In all cases the identification of an appropriate after-use and aftercare conditions is needed at the outset, and progressive restoration will be required where possible.



5.79 Restored landfill can make a valuable contribution to green infrastructure and typical after-uses could include:

- Improving public access to the countryside, including public access for disabled people and recreation;
- Use for management of water resources and/or flooding management;
- The improvement of biodiversity and long term ecological management;
- Use as back-up grazing;
- Opportunities for energy production (e.g. wind, solar or biomass production);
- Return to agriculture, forestry or other 'open' use recreational facilities.
- Provision of ecosystem services⁶.

5.80 Restoration and aftercare proposals must be discussed at the pre-application stage to ensure that appropriate local consultation is undertaken prior to submitting the planning application, in accordance with district Statements of Community Involvement, and to allow local communities to influence the restoration proposals. Planning applications will not be validated without consideration of these issues or without public consultation. Detailed proposals must be proposed at an early stage and will be secured through legal agreements or conditions.

5.81 It is essential that sites are restored to the highest standards. Restoration proposals and methodologies will be assessed at the planning applications stage to ensure that operations are both technically and financially feasible and respect the character of the landscape in which the development is proposed and, where appropriate, improve the provision of facilities for the benefit of the local and wider community. Any restoration proposals must therefore address progressive/phased restoration, long term environmental management and funding mechanisms. Restoration proposals should be compatible with other policies of the Waste DPD and other relevant LDF documents for the district in which the site is located.

Policy and Evidence Base References:

PPS10, Issues & Options Report, Preferred Options Report, Sustainability Appraisal Objectives and Report.



6 Implementation and Monitoring

6.1 Delivery Framework

Implementation

6.1 Implementation of the Waste DPD will fall to several parties including waste planning authorities, waste collection authorities, Merseyside Waste Disposal Authority (MWDA), the Environment Agency and the private waste industry. The primary responsibility for implementation of policies will, however, lie with the local planning authorities through the planning process, whilst delivering the site infrastructure will fall to the waste industry. MWDA has a clearly defined role which is being implemented through its three contracts; recycling, resource recovery and disposal. The Waste DPD is a sub-regional plan, and it is particularly difficult to identify specific sources of public sector funding or specific people/companies who will have responsibility for taking forward individual sites. For example, this will predominantly be market driven by the waste industry for C&I wastes.

6.2 Once adopted the Waste DPD policies and allocations will become part of District Local Development Frameworks. Planning decisions on waste management facilities and development likely to have an impact on Waste DPD allocations must be fully integrated with the Core Strategies and other DPDs.

6.3 The Waste Collection Authorities, MWDA and the waste industry in general will need to optimise waste collection and recycling systems, promote waste minimisation and develop new waste management infrastructure to meet the needs of the sub-region.

6.4 The Environment Agency has a two-fold role in terms of promoting waste minimisation and also in regulating and monitoring how each facility is operated and managed via the Environmental Permitting System.

6.5 Principally, implementation of the policies within the Waste DPD should ensure that the vision and objectives of the Waste DPD are being met. Therefore, the implementation and monitoring plans are based around meeting the objectives.



Table 6.1 Implementation Plan

| Policy | How it will be implemented | Who will implement it | Related Strategic Objective |
|---|--|---|-----------------------------|
| Protecting Existing Waste Management Capacity (WM2, WM3, WM4 & WM7) | Through the planning process ensure sites that are currently in waste management use are not allowed to be developed for another purpose unless there is a justified overriding need, or that the capacity has been made up for elsewhere. | Local Planning Authority | SO1, SO3, SO4, SO6, SO8 |
| Areas of Search for Small-Scale Waste Management Facilities (WM5) | Ensure Guide to Site Prioritisation (policy WM1) fully met. Assessment of planning applications to ensure that small-scale waste-related development is directed towards Areas of Search | Land Owners / Site Operators Local Planning Authority | SO1 |
| Waste Prevention & Resource Management (WM8) | Through planning process encourage adoption of design principles and construction methods that prevent and minimise the use of resources and encourage the use of high-quality building materials made from recycled and secondary sources; Produce Site Waste Management Plans | Local Planning Authority Land Owners Site Operators Land Owners Site Operators | SO2, SO4, SO5 |
| Design & Layout for New Development (WM9) | Building designs (both individual dwelling design and overall design of development) should facilitate separation & collection of waste including recyclable materials and incorporation of home composting where possible. Development design (including road layouts) to improve access for transport & collection of waste and recyclable materials. | Developers/Architects / Land Owners / Site Operators Local Planning Authority Architects / Land Owners / Site Operators | SO4, SO5, SO6 |



| Policy | How it will be implemented | Who will implement it | Related Strategic Objective |
|---|--|--|-----------------------------|
| | | Local Planning Authority | |
| | Designs for major new employment and residential development to allow incorporation of low carbon combined heat and power to deliver energy security and long term economic benefits. | Architects / Land Owners / Site Operators Local Planning Authority | |
| High Quality Design & Operation of New Waste Management Facilities (WM10) | BREEAM Assessments to be submitted with planning applications | Architects / Land Owners / Site Operators Local Planning Authority | SO3, SO4, SO6, SO7, SO8 |
| | Early liaison with the Environment Agency re: permitting issues | Site Operators / Land Owners Local Planning Authority Environment Agency | |
| Sustainable Waste Transport (WM11) | Through planning application process and demonstration that new waste management development has assessed: <ul style="list-style-type: none"> • Alternatives to road transport for movement of wastes • Sustainable travel for its employees • Mitigation of the effects of road transport on the local amenity. • Safe & adequate access to and from the highway. • Reduction of impact on climate change. | Land Owners / Site Operators Local Planning Authority | SO6, SO7, SO8 |



| Policy | How it will be implemented | Who will implement it | Related Strategic Objective |
|---|---|--|-------------------------------|
| Criteria for Waste Management Development (WM12) | Through the planning process ensure that all the relevant criteria in Box 1 are assessed and satisfactorily mitigated for. To ensure that policy WM1 is fully met. | Land Owners / Site Operators Local Planning Authority Environment Agency | SO3, SO4, SO6, SO8 |
| Waste Management Facilities on Unallocated Sites (WM13) | Ensure Guide to Site Prioritisation (policy WM1) fully met. Through assessment of planning applications to ensure that use of unallocated site is fully justified, and all relevant criteria met. | Land Owners / Site Operators (prepare and provide) Local Planning Authority (review) | SO1, SO3, SO4, SO6, SO8 |
| Energy from Waste(WM14) | Quantification of : <ul style="list-style-type: none"> • MWatts Electricity Generated • MWatts Heat recovered • CO₂ emissions data. • Location of Heat Customers will be included in proposals and operational schemes | Merseyside Waste Disposal Authority Site Operators Local Planning Authority Energy Customers | SO3, SO8 |
| Landfill on Unallocated Sites (WM15) | To ensure proposals for landfill on unallocated sites can be satisfactorily assessed. | Land Owners / Site Operators Local Planning Authority | SO1, SO3, SO8 |
| Restoration & Aftercare (WM16) | Through the planning process ensure that restoration plans are agreed and that aftercare of the site is appropriate and implemented. Early liaison with Environment Agency regarding restoration and aftercare plans | Land Owners / Site Operators Local Planning Authority Land Owners / Site Operators Local Planning Authority Environment Agency | SO3, SO6, SO8 |



| Policy | How it will be implemented | Who will implement it | Related Strategic Objective |
|--------|--|--|-----------------------------|
| | Secure long term funding mechanism for realising the aftercare and restoration proposals (through S.106 agreements or through financial provision agreement with the Environment Agency) | Land Owners / Site Operators Local Planning Authority Environment Agency | |

Table 6.2 Site-specific implementation - phasing and delivery

| Site Reference/Name | Site Size (ha) | Required by: | Implemented/Developed by: | Funded by: |
|--|----------------|--------------|---|---|
| Sub-regional Sites | | | | |
| H1 Site at Widnes Waterfront | 7.8 | 2015 | Private landlord/New Earth Solutions (Private waste industry) | New Earth Solutions/ Private finance |
| K1 Butlers Farm, Knowsley Industrial Park | 8.0 | 2015 | Public sector landlord/Private waste industry | Private finance |
| L1 Land off Stalbridge Road, Garston | 5.4 | 2015 | Private landlord/Jack Allen Holdings Ltd (Private waste industry) | Jack Allen Holdings Ltd/Private Finance |
| F1 Alexandra Dock No1, Metal Recycling Site | 9.8 | 2015 | EMR or private waste industry | EMR/private finance |
| S1 Land SW of Sandwash Close, Rainford Industrial Estate | 6.1 | 2015 | Private landlord/Private waste industry | Private finance |



| Site Reference/Name | Site Size (ha) | Required by: | Implemented/Developed by: | Funded by: |
|--|----------------|--------------|---|---|
| W1 Car Parking / Storage area, former Cammell Laird Shipyard, Birkenhead, Wirral | 5.9 | 2015 | Private landlord/Private waste industry | Private finance |
| District Sites | | | | |
| H2 Eco-cycle Waste Ltd, Johnson's Lane, Widnes | 2.0 | 2010 | Eco-cycle or private waste industry | Eco-cycle/private finance |
| H3 Runcorn WWTW | 1.2 | 2015 | Halton Council HWRC | District/Contractor/ Private finance |
| K2 Image Business Park, Acornfield Road, Knowsley Industrial Park | 2.8 | 2027 | Public sector landlord/Private waste industry | Private finance |
| K3 Mainsway Ltd, Ellis Ashton Street, Huyton Business Park | 2.3 | 2027 | Mainsway Ltd or private waste industry | Mainsway/private finance |
| K4 Former Pilkington Glass Works, Huyton Business Park | 1.3 | 2027 | Private landlord/Private waste industry | Private finance |
| L2 Site off Regent Road / Bankfield Street, Liverpool | 1.4 | 2027 | Private landlord/Private waste industry | Private finance |
| L3 Waste Treatment Plant, Lower Bank View | 0.7 | 2027 | Veolia/Private waste industry | Private finance |
| F2 55 Crowland Street, Southport | 3.6 | 2027 | Southport Skip Hire or private waste industry | Southport Skip Hire/ private finance |
| F3 Site North of Farriers Way, Atlantic Business Park | 1.7 | 2015 | Private landlord/Private waste industry | Private finance |



| Site Reference/Name | Site Size (ha) | Required by: | Implemented/Developed by: | Funded by: |
|---|----------------|--------------|---|---------------------------------|
| F4 1-2 Acorn Way, Bootle | 0.8 | 2015 | Private landlord/Spotmix (Private waste industry) | Spotmix/Private finance |
| S2 Land North of T.A.C., Abbotsfield Industrial Estate | 1.3 | 2027 | Public sector landlord/Private waste industry | Private finance |
| W2 Bidston MRF / HWRC, Wallasey Bridge Road | 3.7 | 2027 | MWDA | MWDA/public sector |
| W1 Former Goods Yard, Adjacent Bidston MRF / HWRC, Wallasey Bridge Road | 2.8 | 2027 | Major Skip Hire or private waste industry | Major Skip Hire/private finance |
| Landfill Sites | | | | |
| K5 Cronton Claypit, Knowsley | 22.3 | 2015 | Ibstocks Brickworks and private waste industry | Private Waste Sector |
| S3 Bold Heath Quarry, St Helens | 40.2 | 2015 | Dennis Morgan plc | Dennis Morgan plc |



6.2 Monitoring Framework

Monitoring

6.6 In order to implement the Waste DPD it is important to ensure that:

- The performance of the plan is monitored.
- The evidence base is monitored and that systems are in place to update it.
- Uptake of land allocations is monitored to assist in the phased release and/or safeguarding of land.

6.7 Responsibility for monitoring lies with the waste planning authorities, and agreement has been reached for Merseyside EAS to support the monitoring of the Plan through specific actions listed in the monitoring plan.

6.8 The Waste DPD has been developed with the best information available at the time, and the evidence base has been updated through each stage of its development. The Waste DPD is flexible and able to respond to changing needs and circumstances, through its site allocation and policies. Monitoring the performance of the policies and the uptake of the allocated sites will allow the effectiveness of the Waste DPD in delivering its Spatial Vision and Strategic objectives to be measured.

6.9 There may not eventually be development of all of the proposed allocations in this Plan for waste uses. This will be needs led, and also based on economic factors. Some sites may be able to support more than one facility, and others may operate to a high capacity, both eventualities could lead to fewer sites being required. If there is a requirement for additional sites, this will be addressed through development management policies. This will be monitored by assessing the number of sites which are taken up at regular monitoring periods during the Plan period, and the capacity of those facilities to handle various types of waste. This will be checked against the Needs Assessment for the sub-region.

6.10 The monitoring of the Waste DPD will need to be fed into the Annual Monitoring Reports (AMRs) of each district, where it will be reported alongside performance of the Core Strategies and other DPDs. The AMR will report on the effectiveness of policies and identify any changes needed if a policy is not working or the targets are not being met. Specifically AMRs will need to monitor uptake of sites, treatment capacity and need for treatment. It is likely that the Waste DPD will be reviewed every five years or sooner if this is justified. The first review will take place within 2 years of its adoption, as this is when most of the treatment facilities consented prior to adoption of the Waste DPD, are due to become operational, and it is critical that this is monitored to review the take-up of land allocations, taking into account delivery of capacity and any over or under provision.

6.11 The role of Merseyside EAS will be to review the uptake of allocations and compare against the assessment of need, and also review the use of the waste policies. It will periodically review the needs assessment according to the timeline in paragraph 6.11 above. Finally, Merseyside EAS will also annually monitor the mass balance of imports and exports to the sub-region, to ensure that Merseyside and Halton are moving towards self sufficiency. This information will then be passed to the districts for inclusion in their individual AMRs.

6.12 Indicators have been chosen which provide a consistent basis for monitoring the performance of the Waste DPD against its vision and strategic objectives, and key policies. The indicators will reflect the recommendations of the Sustainability Appraisal and also include some former National Indicators (NI) where these are still referred to, and indicators from the single data list which were developed by the Department for Communities and Local Government in 2010, and Core Output Indicators (COI) recommended for local authorities in monitoring the performance of their own local development frameworks and their performance against RSS targets. Sustainable Development principles are incorporated into the vision and strategic objectives. In a small number of cases additional local indicators have been developed which help monitor performance of policies which are specific to the Merseyside Joint Waste DPD. All the indicators will provide the basis for identifying where the Waste DPD needs to be strengthened, maintained or changed.



Monitoring Plan

Table 6.3 Monitoring Plan

| Indicator Reference | What will be measured? | Resources /Infrastructure Required | Where will it be Implemented? | Target | Related Strategic Objectives |
|---------------------------------|--|---|--|--|------------------------------|
| Single data list 082-01 | Method of collection & tonnage of waste e.g. kerbside, civic amenity, flytipped | District Officer Time MWDA Officer Time (PFI funding for alternative facility) EA officer Time | Across Merseyside and Halton through AMR Reporting | - | SO2, SO3, SO4, SO5 |
| Single data list 082-02 | Tonnage of waste sent for recycling, composting, re-use split by material type | District Officer Time MWDA Officer Time | Across Merseyside and Halton through AMR Reporting | Progressive increase year on year but 50% by 2020 | SO2, SO3, SO4, SO5, SO8 |
| Single data list 082-03 | Method of disposal & tonnage of waste (e.g. Landfill, incineration) | District Officer Time MWDA Officer Time | Across Merseyside and Halton through AMR Reporting | Achieve a maximum of 10% to landfill by 2020 with remaining residual waste (40%) to treatment | SO1, SO3, SO4, SO8 |
| Single data list 067-01 | Contribution made by LACW management to CO ₂ reduction from local authority own estate & operations | District Officer Time MWDA Officer Time | Across Merseyside and Halton through AMR Reporting | Initial target of year on year reduction. Requirement to review and set formal target if appropriate | SO6, SO7, SO8 |
| Former National Indicator NI186 | Contribution made by sustainable waste management to per capita reduction in CO ₂ emissions in local authority area | District Officer Time | Across Merseyside and Halton through AMR Reporting | Initial target of year-on-year reduction. Requirement to review and set formal target if appropriate | SO6, SO7, SO8 |
| Single data list 024-15 AMR W-1 | Capacity of new waste management facilities by waste planning authority | Merseyside EAS | Across Merseyside and Halton through AMR Reporting | Requirements in line with Needs Assessment | SO1 |
| Single data list 024-16 AMR W-2 | Amount of municipal waste arisings managed by waste management type and by waste planning authority | District Officer Time MWDA officer Time | Across Merseyside and Halton through AMR Reporting | Annual figures should be available via MWDA/ Waste collection authorities | SO1, SO3 |



| Indicator Reference | What will be measured? | Resources /Infrastructure Required | Where will it be Implemented? | Target | Related Strategic Objectives |
|---------------------------------|--|---|--|--|------------------------------------|
| Single data list 024-12 AMR E-3 | To show the contribution the waste sector will make to the amount of renewable energy generation by installed capacity (reported in MW to include both heat and electrical energy recovered) | District Officer Time Merseyside EAS | Across Merseyside and Halton through AMR Reporting | No target set as it will vary year on year depending on the type of facilities being developed and the amount of waste recovered that qualifies for Renewables Obligation Certificates | SO3, SO8 |
| Local Indicator WDPD1 | Number of sub-regional sites which are taken up for waste management use. | District Officer Time Merseyside EAS Officer Time | Across Merseyside and Halton through AMR Reporting & review of evidence base | Requirements in line with Needs Assessment | SO1 |
| Local Indicator WDPD 2 | Number of district allocated sites which are taken up for waste management uses. | Merseyside EAS Officer Time | Across Merseyside and Halton through AMR Reporting & review of evidence base | Requirements in line with Needs Assessment | SO1 |
| Local Indicator WDPD 3 | Number of waste management facilities that are developed on unallocated sites | Merseyside EAS Officer Time | Across Merseyside and Halton through AMR Reporting & review of evidence base | <10% of requirement stated for targets WDPD 1 and 2 | SO1 |
| Local Indicator WDPD 4 | No. of planning applications for new waste management facility buildings which achieve a 'Very Good' or 'Excellent' BREEAM rating or equivalent standard | District Officer Time Merseyside EAS Officer Time | Across Merseyside and Halton through AMR Reporting | 100% | SO2, SO4, SO5, SO6, SO7, SO8 |
| Local Indicator WDPD 5 | No. of new waste management facilities which utilise an element of sustainable transport as part of their operation | District Officer Time Merseyside EAS Officer Time | Across Merseyside and Halton through AMR Reporting | 25%-30% | SO6, SO8 |



| Indicator Reference | What will be measured? | Resources /Infrastructure Required | Where will it be Implemented? | Target | Related Strategic Objectives |
|------------------------|--|---|--|---|-------------------------------|
| Local Indicator WDPD 6 | Recycle and recover value from commercial and industrial wastes in line with regional/national targets | District Officer Time Merseyside EAS Officer Time | Across Merseyside and Halton through AMR Reporting | 65% recycled by 2020; recover value from 90% by 2020 (includes recycling) | SO2, SO3, SO4, SO5, SO8 |



7 Glossary

Glossary of Terms

| Term | Definition |
|---|--|
| Anaerobic Digestion (AD) | <p>AD is a natural process in which microorganisms break down organic matter, in the absence of oxygen, which produces a renewable compost-like material (digestate) together with a biogas, which can be used directly in engines (CHP), burned for heat or cleaned and used in the same way as a natural gas (fed back into the grid) or as a renewable vehicle fuel-source. Typically there are two types of AD plant, farm-based plants, and centralised plants which tend to be larger scale (e.g. 50,000tpa).AD is already extensively used in the wastewater treatment industry.</p> <p>A centralised AD plant is an enclosed waste use and typically includes treatment tanks ±6m tall and a waste reception hall similar to a warehouse unit. A plant of this scale could employ ±5 direct workers.</p> |
| Allocations Development Plan Document (DPD) | <p>An Allocations DPD allocates a wide range of land uses to support the spatial vision and strategic objectives set out in the Core Strategy. The Allocations DPD includes land allocated for: housing, employment, waste management, environmental conservation, transport infrastructure etc.</p> |
| Autoclaving | <p>A newly emerging technology in the UK, Autoclaving is regarded as a generic waste treatment option, it uses a pressurised steam treatment process to breakdown waste into a 'flock' like material. This process allows recyclables to be partially cleaned and extracted for re-processing. The remaining material may be sorted and the highly calorific fraction used as an RDF for thermal treatment plants.</p> <p>An Autoclaving plant is an enclosed waste management use and typically resembles a large warehouse unit. A facility of this scale could employ ±40 direct workers.</p> |
| Bioaerosols | <p>Bioaerosols are complex mixtures of airborne micro-organisms and their products, and are ubiquitous, particularly in rural environments. In waste management, bioaerosols are typically associated with facilities which deal with biodegradable waste e.g. kitchen and garden waste.</p> |
| Biodegradable Waste | <p>Any waste that is capable of undergoing natural decomposition, such as food and garden waste, paper and cardboard.</p> |
| Brownfield Land | <p>Land that is or was occupied by a permanent structure (excluding agricultural or forestry) and associated fixed surface infrastructure. It can occur in both built up or rural setting and includes defence buildings and land used for mineral extraction and waste disposal where there is no requirement for restoration through planning control. It does not include such land as parks, recreation grounds and allotments and land that cannot be regarded as requiring development, such as where it has been put to an amenity use or is valuable for its contribution to nature conservation.</p> |
| Capacity | <p>In this document "capacity" refers to waste management capacity, which is the amount of waste throughput handled at a built waste management facility (e.g. 50,000tpa) or, in the case of a landfill site, the amount of voidspace expressed in cubic metres.</p> <p>At certain points within this document, capacity is referred to collectively i.e. Merseyside and Halton or on a site by site basis. Waste management capacity can be existing, consented or forecast need, depending on the context to which it is referred.</p> |



| Term | Definition |
|--|--|
| Combined Heat & Power (CHP) | Thermal process which produces steam which can be used for heat and power which can be used for electricity generation. |
| Commercial & Industrial Waste | Waste from offices/retail & other commercial premises or from a factory or industrial process. |
| Construction, Demolition & Excavation Waste (CD&E) | Controlled waste arising from the construction, repair, maintenance and demolition of buildings and structures. |
| Contaminated Land | Land where the actual or suspected presence of substances, in, on or under the land may cause risk to people, property, human activities or the environment regardless of whether or not the land meets the definition of contaminated land in Part IIA of the Environmental Protection Act 1990. |
| Core Strategy | The Core Strategy is at the centre of Local Development Frameworks (LDFs). It sets out the long term vision for a Local Authorities area and the strategic objectives for future development in the area. The Core Strategy should reflect the vision in the Sustainable Community Strategy (SCS), and includes a proposals map showing site allocations. |
| Deliverability | In this document the term "deliverability" refers to how readily available and suitable a site or area is for the purpose of waste management use. For example, ownership constraint, sustainability and flexibility of a site or area, are key considerations in determining deliverability. |
| Density Conversion Factors | <p>A factor used to estimate the tonnage of waste that can occupy a cubic metre of landfill voidspace. The factor varies depending on whether the waste is non-inert or inert, and in the latter case on the density of the material being deposited.</p> <p>The factor used for non-inert waste is not based on any published standard but is accepted by the waste industry as an acceptable estimate. The factors for inert waste are based on statements from the operators of the inert landfills allocated in this document.</p> |
| Development Plan Document (DPD) | A term brought in by the Planning and Compulsory Purchase Act 2004. These documents set out spatial planning policies and proposals for an area or topic. They replace the former Local Plan and include the core strategy, detailed development control policies, site specific allocations of land, area action plans (where needed) and a proposals map (which indicates the planning context for site proposals). |
| Energy from Waste (EfW) | <p>The burning of waste under controlled conditions where the heat released is used to generate electricity and/ or thermal energy for use in the locality e.g. as a community heating scheme or for commercial uses.</p> <p>EfW plants are enclosed waste management uses and typically resemble a large warehouse unit including a stack. A large scale EfW facility could employ ±50 direct workers, whereas a smaller scale facility could employ ±20 direct workers.</p> |
| Energy Recovery | The generation of heat and power from burning waste, the production of fuels from other forms of treatment, and the combustion of landfill gas and gas from anaerobic digestion to create electricity. |



| Term | Definition |
|---|--|
| Environment Agency | Environmental Regulatory Authority formed in 1996, combining the functions of the former National Rivers Authority, Waste Regulation Authorities and Her Majesty's Inspectorate of Pollution. |
| European Sites (Natura 2000) | Natura 2000 is the European Union-wide network of nature conservation sites established under the Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) - The EC Habitats Directive |
| Evidence Base | The information and data gathered by local authorities to justify the "soundness" of the policy approach set out in Local Development Documents, including physical, economic and social characteristics of an area. |
| Gasification | High temperature combustion (greater than 700 degrees Celcius) in starved air conditions. Produces a syngas and a solid residue that can be recycled or landfilled and a liquid oil which can be used as fuel. Gasification plants are enclosed waste management uses and typically resemble large warehouse units including a stack. A large scale Gasification plant (400,000tpa) could employ ±50 direct workers. |
| Green Belt | A designated area around a city where development is severely restricted with the purpose of keeping land permanently open to protect the city's character and to prevent urban sprawl and the coalescence of settlements. |
| Green Waste | Organic waste from parks, gardens, wooded and landscape areas, such as tree pruning, grass clippings, leaves etc. |
| Groundwater | Refers to all sub-surface water as distinct from surface water. Generally groundwater is considered to be that water which is below the surface of saturation and contained within porous soil or rock stratum (aquifer). |
| Hazardous Waste | Waste materials that have properties that can pose a threat to human health or the environment and require management at specialised facilities. Defined under the Hazardous Waste (England and Wales) Regulations 2005 and List of Wastes (England) Regulations 2005. |
| Household Waste Recycling Centre (HWRC) | Site where the general public can take large bulky household items and garden waste and other materials for recycling, treatment and/or disposal. In Merseyside and Halton, these civic amenity sites are provided by Merseyside Waste Disposal Authority (MWDA). Typically these sites may be split level for ease of access to skips, and some include areas for Waste Electrical and Electronic Equipment (WEEE) and white goods such as old televisions and refrigerators. HWRCs are generally open-air rather than enclosed facilities and can be co-located with other waste management facilities. A HWRC could employ ±10 direct workers. |
| Inert | A material that will not react chemically to others. In the context of waste, it is materials such as hardcore, sand and clay. |
| Incinerator Bottom Ash (IBA) | IBA refers to the solid residual material (coarse ash) which remains on the incinerator grate following the combustion of solid municipal/commercial waste in an Energy from Waste (EfW) facility. |



| Term | Definition |
|---|--|
| In-Vessel Composting (IVC) | <p>IVC treats biodegradable municipal solid wastes (BMSW) such as catering and/or garden waste. This biodegradable feedstock is shredded and treated within an 'in-vessel' composting system (e.g. a controlled enclosed environment such as a silo, container or enclosed hall). This system speeds up the traditional composting process, IVC typically takes up to 3 weeks, whereas open windrow composting can take up to 16 weeks.</p> <p>An IVC facility is an enclosed waste management use similar to a warehouse unit in appearance and could employ ±10 direct workers.</p> |
| Joint Municipal Waste Management Strategy (JMWMS) | The JMWMS for Merseyside sets out the guiding principles for the delivery of municipal waste management in the region between 2008 and 2020. The Strategy represents the direction taken by the Merseyside and Halton Waste Partnership (MHWP). |
| Landfill | Site for the disposal of waste into or onto land, as defined by the Landfill (England and Wales) Regulations 2002 (as amended). |
| Listed Buildings | Buildings protected under the Planning (Listed Building and Conservation Areas) Act 1990. |
| Local Authority Collected Waste (LACW) | Also referred to as Municipal Solid Waste (MSW) and Municipal Waste. Household waste and any other waste collected by a Waste Collection Authority such as municipal parks and gardens waste, beach cleansing waste and waste resulting from the clearance of fly-tipped materials. |
| Local Development Framework (LDF) | The LDF is the name given to the new planning system of Development Plans introduced by the Planning and Compulsory Purchase Act 2004. The LDF, which comprises a portfolio of Development Plan Documents, will replace Unitary Development Plans (UDP). |
| Local Strategic Partnerships (LSPs) | An LSP is a non-statutory body that brings together the different parts of the public, private, voluntary and community sectors, working at a local level. |
| Materials Recycling Facility (MRF) | <p>A waste sorting facility, where recyclable waste materials are separated and screened out using mechanical and manual processes. These recyclable waste materials are then bulked up and sent onto re-processors. Typically there are two types of MRF: clean and dirty MRFs. Clean MRFs process waste dry recyclables which has been source separated or co-mingled, whilst dirty MRFs process non-separated residual waste including putrescible materials. The residual waste, which cannot be recycled, is then transferred to other facilities for treatment or disposal.</p> <p>MRFs typically resemble large warehouse units with shutter doors and waste collection bays inside. They are enclosed facilities and typically employ ±125 direct workers.</p> |
| Mechanical Biological Treatment (MBT) | <p>MBT plants treat mixed waste both mechanically and biologically to separate out recyclable materials for re-processing and turn biodegradable materials into other products, such as refuse derived fuel (RDF), solid recovered fuel (SRF) or a compost-like material. RDF and SRF are used as feedstock to fuel thermal treatment facilities.</p> <p>An MBT plant is an enclosed facility similar to a distribution depot in appearance and could employ greater than 10 direct workers.</p> |



| Term | Definition |
|--|---|
| Merseyside | Administratively, the five Districts of Knowsley, Liverpool, Sefton, St.Helens and Wirral. In this document we cover the District of Halton as well and the study area is referred to either as "Merseyside & Halton" or "the sub-region". |
| Municipal Solid Waste (MSW) | See Local Authority Collected Waste (LACW) |
| Non-Hazardous (non-inert) Waste | All those wastes that do not fall under the definition of hazardous waste and do not meet the waste definition of an inert waste. |
| Open / enclosed windrow composting | <p>Open / enclosed windrow composting treats BMSW (e.g. Garden waste) using more traditional composting methods. This process involves initial shredding and then piling of the green waste into elongated rows (windrows) which are periodically turned to force air through the windrows, facilitating the maturation process.</p> <p>Open windrow composting is an open-air waste management use, although it can take place within enclosed buildings which have a low profile similar to farm structures. A facility of this type could employ ±5 direct workers depending on scale.</p> |
| Private Finance Initiative (PFI) | PFI is a method of funding long term public sector contracts. In terms of waste management, PFI exists in the most part to finance the building of new municipal waste management facilities and waste contracts. |
| Primary Treatment | Initial treatment of waste to remove as many recyclables as possible, with production of residual waste which could be in the form of refuse-derived fuels (RDF), including mechanical heat treatment (MHT) or mechanical biological treatment (MBT) or waste transfer stations (WTS) |
| Protected Species | Plants and species afforded protection under certain Acts of Law and Regulations. |
| Planning and Compulsory Purchase Act ('the Act') | <p>The Act updates elements of the 1990 Town & Country Planning Act. The Planning and Compulsory Purchase Act 2004 introduces:</p> <ul style="list-style-type: none"> - a statutory system for regional planning; - a new system for local planning; reforms to the development control, and - compulsory purchase and compensation systems; and - removes crown immunity from planning controls. |
| Planning Policy Statement 10 (PPS10) | PPS10 sets out the Governments national planning policy on Sustainable Waste Management. |
| Principal Aquifer | These are layers of rock or drift deposits that have high inter-granular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer. |
| Pyrolysis | Thermal degradation in the absence of oxygen between 400-800 degrees Celcius. Produces a combustible vapour (syngas), condensable liquid or oil and carbon rich solid residue. Can be used to burn RDF, single or mixed waste streams. |



| Term | Definition |
|---|--|
| Ramsar Sites | Sites of international importance for waterfowl protected under the RAMSAR Convention of the Conservation of Wetlands of International Importance, ratified by the UK Government in 1976. |
| Recovery | Value can be recovered from waste by recovering materials through recycling, composting or recovery of energy |
| Recycling | The reprocessing of waste either into the same product or a different one. |
| Regional Spatial Strategy (RSS) | Documents produced at the regional level; forming part of the statutory plan. |
| Re-processing | <p>Re-processing of a recycled waste material (recyclate) to produce a new usable product, such as re-processing of mixed plastic waste to produce garden furniture.</p> <p>For example, in glass re-processing, the re-processor will be the glass container manufacturer, re-processing recycled glass and producing molten glass or, where not used for glass container manufacture, a business processing cullet for beneficial end-use; including glass use in roadstone fibre and shot blasting.</p> <p>A specialist materials re-processor would typically re-process industrial waste separate of LACW and commercial waste streams. Types of waste may include non-hazardous waste chemicals resulting from industrial processes (e.g. from the manufacture of chemical products).</p> <p>Re-processors are enclosed waste uses and typically resemble large warehouse units with unloading bays.</p> |
| Residual Waste | The elements of waste streams that remain following recovery, recycling or composting operations. |
| Resource Recovery Park (RRP) | Large site where a number of complementary waste management facilities are co-located on a single site, so that the output from one facility is the feedstock for another type of facility (e.g. a co-located MRF and re-processor). |
| Secondary Treatment | The use of the by-product of primary treatment, such as RDF, for the production of Energy from Waste (EfW), this could be in the form of combined heat and power (CHP) to generate steam and electricity, or pyrolysis, gasification. These processes all have an end product of residual waste which will need management or disposal. |
| Self Sufficiency | Ability of an area to manage the waste produced within its boundaries. |
| Sites of Special Scientific Interest (SSSI) | Sites that are notified and identified under the Wildlife and Countryside and Rights of Way Act 1981 on account of their flora, fauna, geological and physiographical features. |
| Source Protection Zone (SPZ) | Zones defined by the Environment Agency to safeguard groundwater sources such as wells, boreholes and springs used for public drinking water supply. Four zones are identified to show the risk of contamination from any activities that might cause pollution to an area. The closer the activity, the greater the risk. |
| Spatial Strategy and Sites (SSS) | The SSS report was the second formal consultation stage of the Waste DPD. This document consulted on proposed spatial strategy and policy options as well as a short-list of proposed sites for built facilities within Merseyside and Halton. |



| Term | Definition |
|--|--|
| Special Area of Conservation (SAC) | A SAC considered to be of international importance designated under the EC Directive on the conservation of Natural Habitats and of Wild Flora and Fauna. |
| Special Protection Area (SPA) | A SPA considered to be of international importance designated under the EC Directive on the Conservation of Wild Birds. |
| Statement of Community Involvement (SCI) | Sets out an LPAs intended consultation strategy for the different elements of the planning process. This is a requirement brought in by the Planning and Compulsory Purchase Act 2004. |
| Strategic Environmental Assessment (SEA) | An evaluation process for assessing the environmental impacts of plans and programmes. SEA is a statutory requirement. |
| Strategic Facilities | Large facilities that are located to serve a large geographical area (e.g. county or sub-region) as opposed to smaller, local (i.e. community-based) facilities which serve locally derived waste arisings. |
| Sub-region | In the Merseyside context, usually this refers to the area covered by the Districts of Knowsley, Liverpool, Sefton, St.Helens and Wirral. However, in this report the District of Halton is included. |
| Sustainable Community Strategy | The local strategic partnership (LSP) creates a long-term vision for an area to tackle local needs, this is set out in a document referred to as the "sustainable community strategy (SCS). The SCS sits above all the other plans and should be based on evidence and consultation. The SCS is not subject to any external validation but is subject to a sustainability appraisal. The LDF, particularly the core strategy, needs to demonstrate how it is delivering the SCS. |
| Thermal Treatment | Thermal treatment refers to processes, which use heat to treat either raw waste or pre-treated waste (i.e. waste that has been through a primary treatment stage) to extract energy from the materials being processed. This could include SRF/RDF fed EfW facilities. Primary and thermal treatment facilities are often co-located on one large site. |
| Treatment | Physical, thermal, chemical or biological processes (including sorting) that change the characteristics of waste in order to reduce its volume or hazardous nature; facilitate its handling or enhance recovery. |
| Waste | Waste is any material or object that is no longer wanted and which requires management. If a material or object is reusable, it is still classed as waste if it has first been discarded. |
| Waste Arising | The amount of waste generated over a period of time for example by a geographical area or industry sector. |
| Waste Disposal Authority (WDA) | The authority that is legally responsible for the safe disposal of household waste collected by the Waste Collection Authorities and the provision of HWRCs. |
| Waste Electrical and Electronic Equipment (WEEE) | The WEEE Directive was introduced into UK law in 2007 by the the Waste Electronic and Electrical Equipment Regulations 2006. WEEE includes: household appliances, IT and telecommunications equipment, lighting and electronic tools, TVs, videos and hi-fis. WEEE is collected at some HWRCs for sorting and recycling. |



| Term | Definition |
|------------------------------|---|
| Waste Transfer Station (WTS) | <p>Facility where waste is received in small quantities and bulked up for onward transport to landfill or another management facility via road, rail or sea. This is the current situation in MWDA run WTSs. Commercial WTSs sort and recycle a significant amount of this waste. WTSs deal with all waste streams including hazardous waste.</p> <p>Non-inert and hazardous WTSs are enclosed facilities, and can be similar to distribution depots. Whereas inert WTS tend to store soils, construction, demolition and/or excavation waste in the open-air and within buildings. These types of facility typically employ ± 8 direct workers depending on the amount of waste throughput.</p> |
| Voidspace | <p>Voidspace refers to the volume of "air-space" below ground levels available for landfill. This means that landfills are typically located in former quarries or mineral workings. Voidspace is measured in cubic metres.</p> |



8 Appendices



8.1 Appendix 1 : Waste Uses

Table A1 Built Facilities - Suggested Waste Management Uses (Indicative Information)

| Suggested Waste Management Use | Facility Type | Waste DPD Site Capacity (tpa) | No. Direct Jobs Created** | Desirable Site Characteristics |
|---|---|-------------------------------|---------------------------|--|
| HWRC | Household Waste Recycling Centre (HWRC) | 15,000 | ±10 | <ul style="list-style-type: none"> • Site area potentially <1ha; • needs to be able to accommodate queuing traffic and be large enough to segregate public and Heavy Goods Vehicles (HGV) traffic; • Locate near to centres of population or on the edge of urban areas to maximise accessibility and ensure usage without causing adverse amenity impact; • Typically sited in industrial and employment areas, contaminated or derelict land; • Access via A and/or B class roads; • Sites close to existing waste management facilities could provide additional synergy; • Access routes should be free from HGV constraints |
| WTS (including sorting facilities) | Materials Recycling Facility (MRF) | 100,000 | ±125 | <ul style="list-style-type: none"> • Site area typically ±3ha (size of site is dependent on the level of throughput); • Good access to the primary road network; • Proximity to waste arisings is important to reduce distance of waste transfer; • Buildings need to be tall enough (±12m) to accommodate HGV movements; • Typically sited in industrial areas close to existing waste management facilities; • B2 and B8 use class designations may be suitable; • Consideration of alternative modes of transport (e.g. rail or barge transfer); |



| Suggested Waste Management Use | Facility Type | Waste DPD Site Capacity (tpa) | No. Direct Jobs Created** | Desirable Site Characteristics |
|--------------------------------|-----------------------------------|-------------------------------|---------------------------|---|
| | Municipal non-inert WTS | 100,000 | ±8 | <ul style="list-style-type: none"> Where amenity issues (i.e. noise and litter) can be minimised a facility could be located within 100m of sensitive receptors; Access routes should be free from HGV constraints |
| | Merchant non-inert WTS | 75,000 | | <ul style="list-style-type: none"> Site area typically >0.5ha (size of site is dependent on the level of throughput); Good access to the primary road network is vital; Proximity to waste arisings is important to reduce distance of waste transfer; Buildings need to be tall enough (±12m) to accommodate HGV movements; Typically sited in industrial areas close to existing waste management facilities; |
| | Merchant inert WTS | 200,000 | | <ul style="list-style-type: none"> B2 and B8 use class designations may be suitable; Consideration of alternative modes of transport (e.g. rail or barge transfer) |
| | | | | <ul style="list-style-type: none"> Where possible, sites closer than 250m from residential, commercial or recreational areas should be avoided; Access routes should be free from HGV constraints |
| Re-processor | Dry recyclables Re-processor | 200,000 | ±10 | <ul style="list-style-type: none"> Site area typically ±1.5ha; Located near to source of waste feedstock (i.e. WTS or a MRF); |
| | Specialist Materials Re-processor | 100,000 | | <ul style="list-style-type: none"> Good access to the primary road network; Typically sited in industrial areas, close to existing waste management facilities; |



| Suggested Waste Management Use | Facility Type | Waste DPD Site Capacity (tpa) | No. Direct Jobs Created** | Desirable Site Characteristics |
|--------------------------------|---------------------------------------|-------------------------------|---------------------------|--|
| Primary Treatment | Mechanical Biological Treatment (MBT) | 150,000 | ±10 | <ul style="list-style-type: none"> • Consideration of alternative modes of transport (e.g. rail or barge transfer); • Access routes should be free from HGV constraints; • Where possible, sites closer than 250m from residential, commercial or recreational areas should be avoided |
| | Anaerobic Digestion (AD) | 50,000 | ±5 | <ul style="list-style-type: none"> • Site area typically ±3ha (size of site is dependent on the level of throughput); • Good access to the primary road network; • Proximity to waste arisings is important to reduce distance of waste transfer; • Buildings need to be tall enough (10-20m) to accommodate HGV movements; • Typically sited in industrial areas and/or contaminated derelict land close to existing waste management facilities; • B2 and B8 use class designations may be suitable; • Consideration of alternative modes of transport (e.g. rail or barge transfer); • Where possible, sites should be located at least 250m from sensitive receptors; • Access routes should be free from HGV constraints |



| Suggested Waste Management Use | Facility Type | Waste DPD Site Capacity* (tpa) | No. Direct Jobs Created** | Desirable Site Characteristics |
|--------------------------------|----------------------------|--------------------------------|---------------------------|---|
| | | | | <ul style="list-style-type: none"> Buildings need to be ±7m tall to accommodate on site HGV movements; Typically sited in industrial and employment areas, contaminated or derelict land; Compatible with B1/B2 activities; Where possible, sites should be located at least 250m from sensitive receptors; Access routes should be free from HGV constraints |
| | In-Vessel Composting (IVC) | 50,000 | ±10 | <ul style="list-style-type: none"> Site area typically ±1ha; Good access to the primary road network; Building height typically 4-5m; Typically sited in industrial and business areas, and/or contaminated derelict land; Existing waste management facilities should be considered for co-location; Compatible with B1/B2 activities; Where possible, sites should be located at least 250m from sensitive receptors. Site specific risk assessment needs to be a condition if IVC is to be located within 250m of any working or dwelling place; Access routes should be free from HGV constraints |



| Suggested Waste Management Use | Facility Type | Waste DPD Site Capacity (tpa) | No. Direct Jobs Created** | Desirable Site Characteristics |
|--------------------------------|--|-------------------------------|---------------------------|--|
| | Open / enclosed Windrow Composting | 25,000 | ±5 | <ul style="list-style-type: none"> • Site area typically ±2.5ha; • Good access to the primary road network; • Typically sited in rural locations away from urban centres (Green Belt and urban fringe sites); • Urban areas and business parks would be unsuitable; • Where possible, sites should be located at least 250m from sensitive receptors to reduce amenity issues (e.g. smells); • Access routes should be free from HGV constraints |
| | Other specialised pretreatment facilities (e.g. Autoclaving) | 150,000 | ±40 | <ul style="list-style-type: none"> • Site area typically ±3ha (size of site is dependent on the level of throughput); • Good access to the primary road network; • Proximity to waste arisings is important to reduce distance of waste transfer; • Buildings need to be tall enough (10-20m) to accommodate HGV movements; • Typically sited in industrial areas and/or contaminated derelict land close to existing waste management facilities; • B2 and B8 use class designations may be suitable; • Consideration of alternative modes of transport (e.g. rail or barge transfer); • Where possible, sites should be located at least 250m from sensitive receptors; • Access routes should be free from HGV constraints |



| Suggested Waste Management Use | | Facility Type | Waste DPD Site Capacity (tpa) | No. Direct Jobs Created** | Desirable Site Characteristics |
|--------------------------------|----------------------------|---------------|-------------------------------|---|--------------------------------|
| Thermal Treatment | Municipal EFW facility | 475,000 | ±50 | <ul style="list-style-type: none"> Site area ±2-7.5ha (size of the site is generally dependent on the level of waste throughput); Good access to the primary road network; Building height typically 15-30m, stack height 40-80m (dependent on the level of throughput); B2 and B8 use class designations may be suitable; Consideration of alternative modes of transport (e.g. rail or barge transfer) Where possible, sites should be located at least 250m from sensitive receptors to reduce amenity issues (e.g. air emissions). However, smaller scale facilities, coupled with improved environmental standards should in certain cases enable facilities to be located closer to sensitive receptors - particularly when related to a CHP/district heating scheme Access routes should be free from HGV constraints | |
| | Non-municipal EFW facility | 200,000 | | | |
| | Merchant EFW facility | 50,000 | | | |
| | Gasification and Pyrolysis | - | ±50 | <ul style="list-style-type: none"> Site area 2-6ha (size of site is generally dependent on the level of throughput); Building height typically 15-25m, stack height 30-70m (dependent on the level of throughput); B2 and B8 use class designations may be suitable in close proximity to existing waste management facilities; Consideration of alternative modes of transport (e.g. rail or barge transfer) Where possible, sites should be located at least 250m from sensitive receptors to reduce amenity issues (e.g. air emissions). However, smaller scale facilities, coupled with improved environmental standards should in certain cases enable facilities to be located closer to sensitive receptors - particularly when related to a CHP/district heating scheme Access routes should be free from HGV constraints | |



| Suggested Waste Management Use | Facility Type | Waste DPD Site Capacity (tpa) | No. Direct Jobs Created** | Desirable Site Characteristics |
|---|------------------------------|-------------------------------|---------------------------|---|
| RRP - Resource Recovery Park | Resource Recovery Park (RRP) | - | - | <ul style="list-style-type: none"> • Site area typically greater than 4.5ha (dependent on type and scale of waste uses); • Typically sited in industrial areas and/or contaminated derelict land close to existing waste management facilities; • Good access to the primary road network; • B2 and B8 use class designations may be suitable; • Consideration of alternative modes of transport (e.g. rail or barge transfer) |
| <p>¹Waste DPD Site capacity is derived from the Evidence Base section and Revised Needs Assessment (Publication Stage) supporting document</p> <p>^{**}Number of jobs is dependent on the waste throughput and scale of the facility</p> <p>¹Enviros Consulting (2004) <i>Planning for Waste Management Facilities: A Research Study</i> ODPM</p> <p>²DEFRA (2004) <i>New Technologies for Landfill Diversion</i></p> <p>³Enviros Consulting (2008) <i>Designing Waste Facilities: A Guide to Modern Design in Waste</i> DEFRA & CABE</p> | | | | |



Box 2

Definition of Re-processors

A re-processor is a business that in the ordinary course of conduct of a trade, occupation or profession, carries out the activities of recovery or recycling.

Guidance has been provided by the Environment Agency as to what is considered to be recycling for the purposes of the Packaging Regulations. The guidance notes the businesses that are the recyclers for the various materials used for packaging, as follows –

for **glass**, the re-processor will be the glass container manufacturer, that is the producer of molten glass or, where not used for glass container manufacture, the business processing glass cullet^g for beneficial end-use; including glass being used as roadstone, fibre and shot blasting.

for **metals** (aluminium and steel), the re-processor will be the business producing the ingots, sheets or coils of aluminium or steel from packaging waste; this can include the de-tinner for tin-plated waste packaging products;

for **plastics**, the re-processor will normally be the business melt process in the waste plastic packaging to produce new products or materials - but not the business which just carries out size reduction or washing where the material goes through a subsequent melt process;

for **paper/fibreboard**, the re-processor will be the mill manufacturing paper, or other business utilising packaging waste to make products such as loft insulation, animal bedding etc. waste paper merchants are not re-processors.

For **wood**, the re-processor will be the business manufacturing goods (eg. chipboard) out of chipped wood packaging waste.

There are also re-processors undertaking **organic recycling** through aerobic (composting) or anaerobic (biomethanisation) treatment of biodegradable packaging waste.

8.2 Appendix 2 : Site Profiles

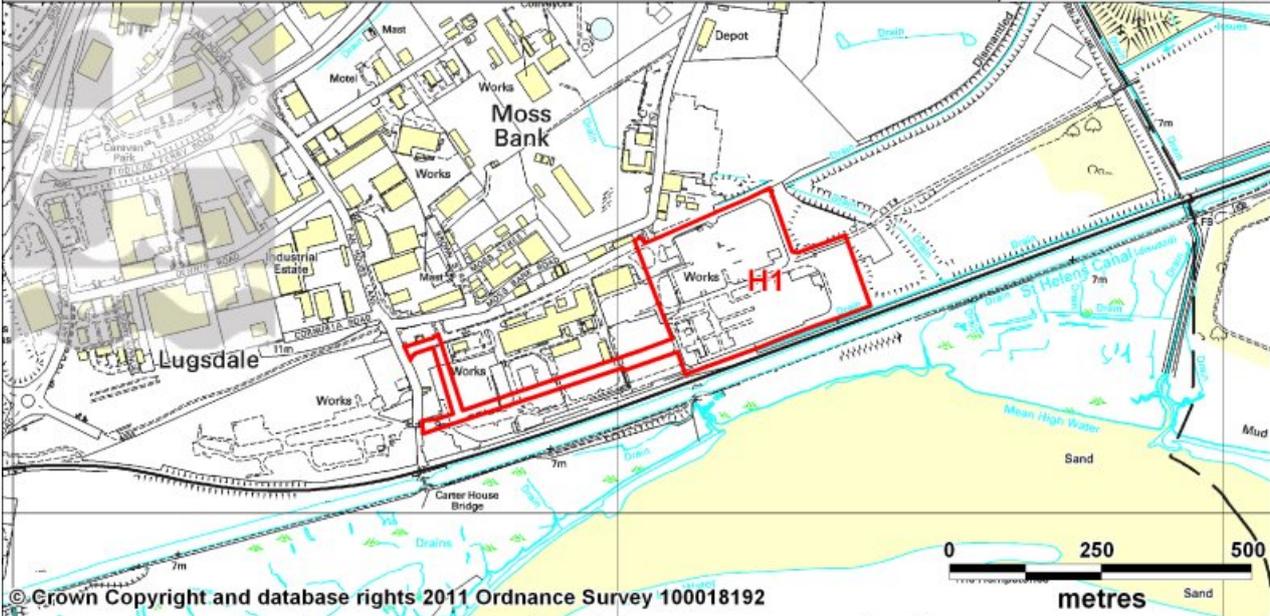
8.1 The site profile maps below show the red line boundaries of the Waste DPD site allocations at 1:10,000 scale. These maps illustrate the additions or changes which need to be made to each District's adopted UDP proposals map and emerging Core Strategies and Allocations DPDs.



H1 - Site at Widnes Waterfront, Moss Bank Road

H1 site boundary

7.8ha



| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✓ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✓ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX



H2 - Eco-cycle Waste Ltd, 3 Johnson's Lane, Widnes

H2 site boundary 2.0ha

© Crown Copyright and database rights 2011 Ordnance Survey 100018192

| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✗ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✗ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX

H3 - Runcorn WWTW

H3 site boundary 1.2ha

© Crown Copyright and database rights 2011 Ordnance Survey 100018192

| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✓ | Re-Processor | ✗ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✗ | RRP | ✗ |

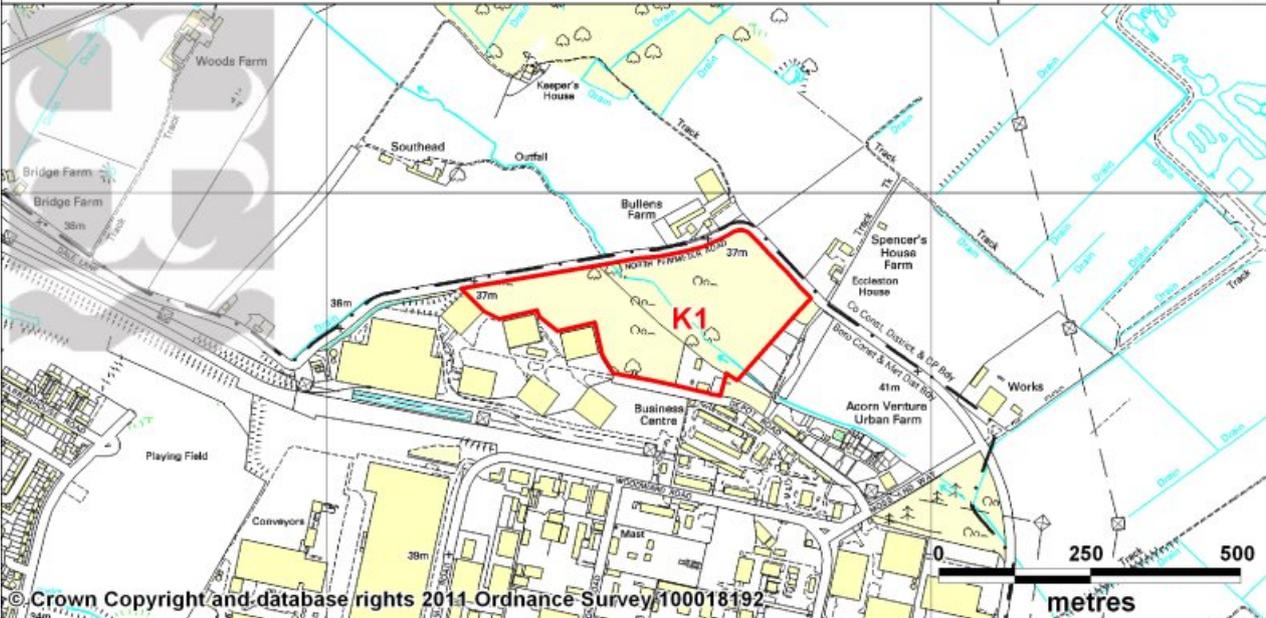
To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX



K1 - Butlers Farm, Knowsley Industrial Estate

K1 site boundary

8.0ha



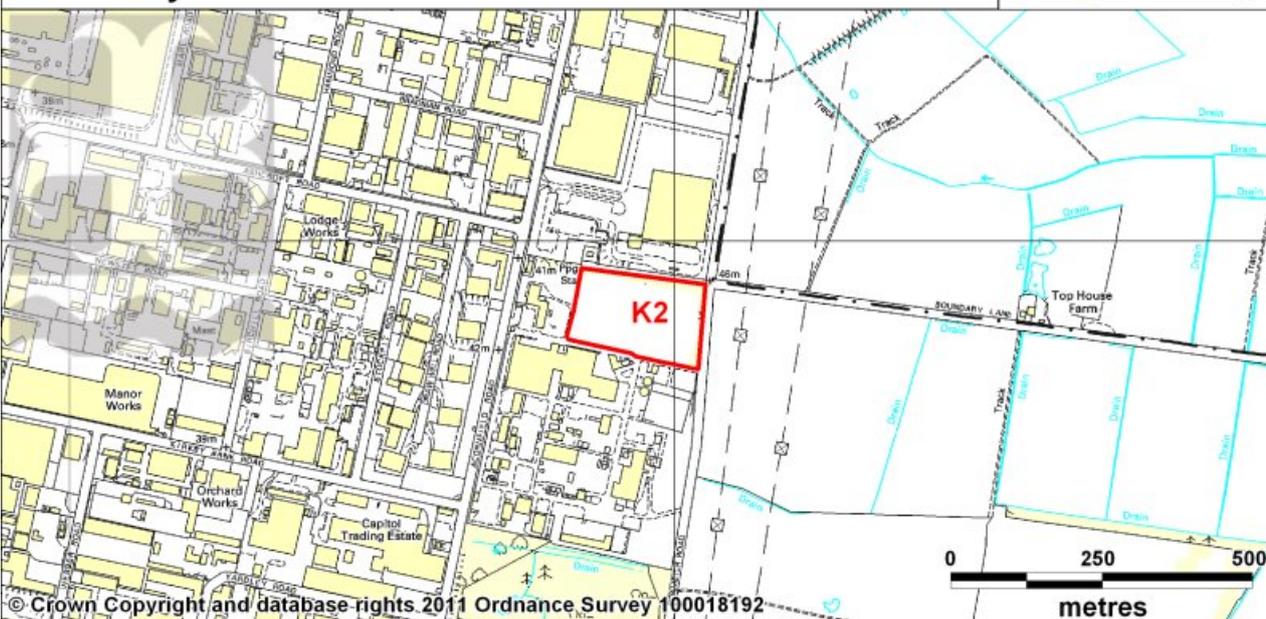
| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✓ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✓ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX

K2 - Image Business Park, Acornfield Road, Knowsley Industrial Estate

K2 site boundary

2.8ha



| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✗ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✗ |

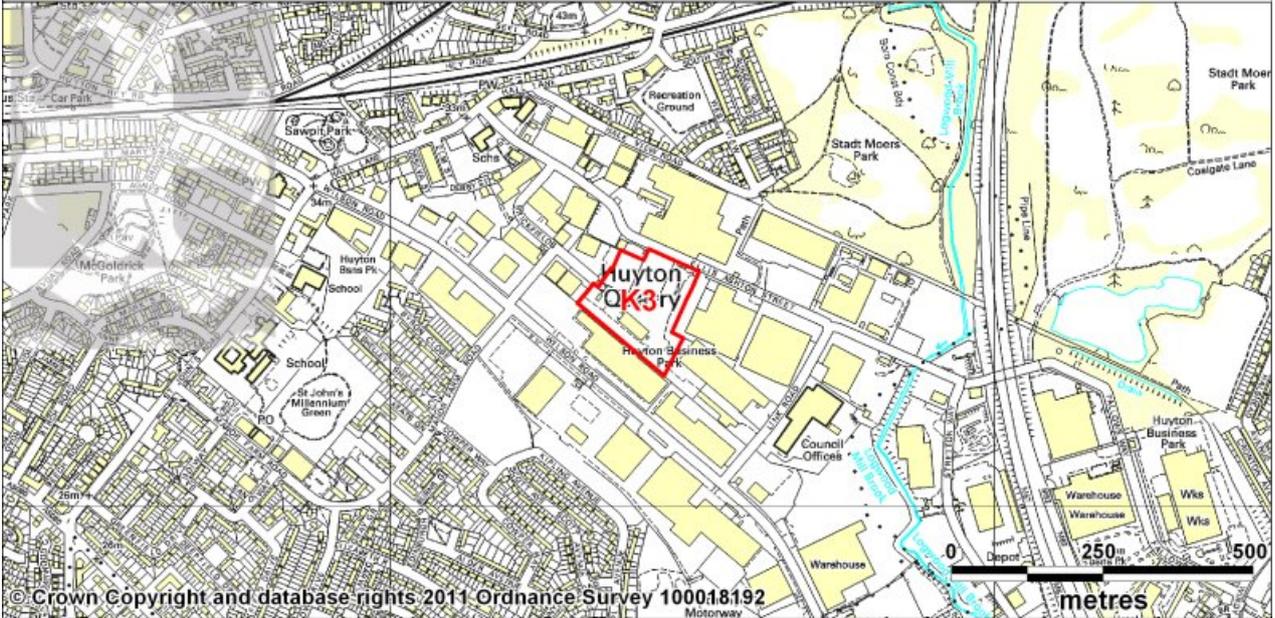
To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX



K3 - Mainsway Ltd, Ellis Ashton Street, Huyton Business Park

K3 site boundary

2.3ha



© Crown Copyright and database rights 2011 Ordnance Survey 100018192

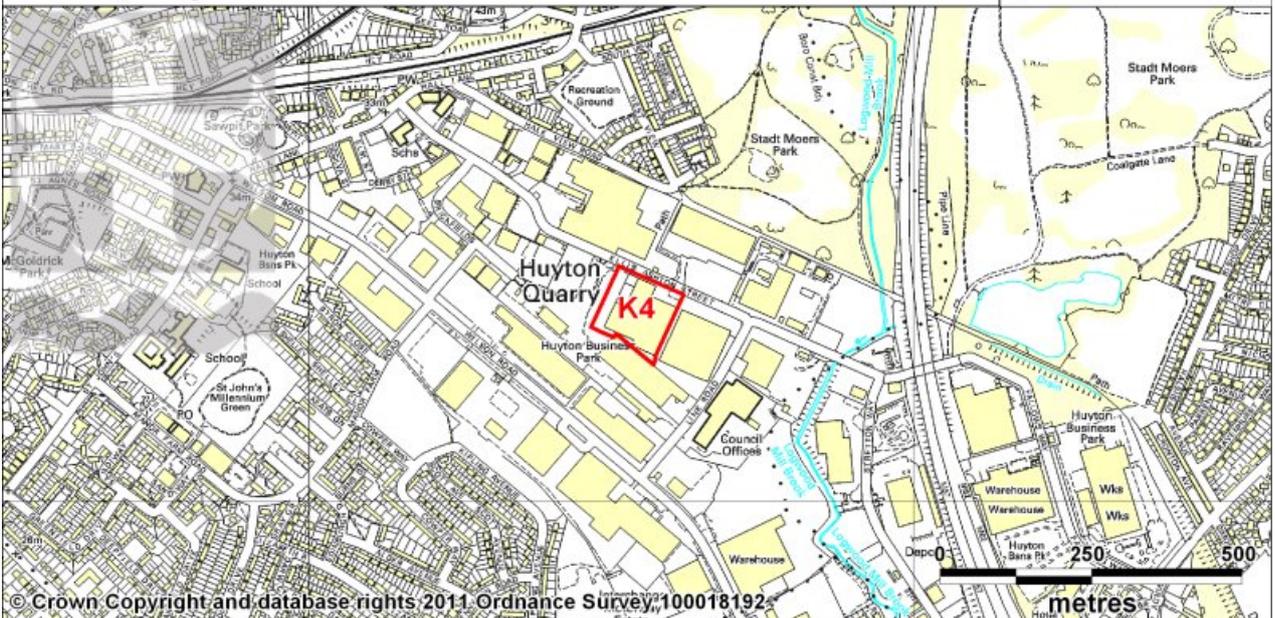
| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✓ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✗ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX

K4 - Former Pilkington Glass Works, Ellis Ashton Street, Huyton Business Park

K4 site boundary

1.3ha



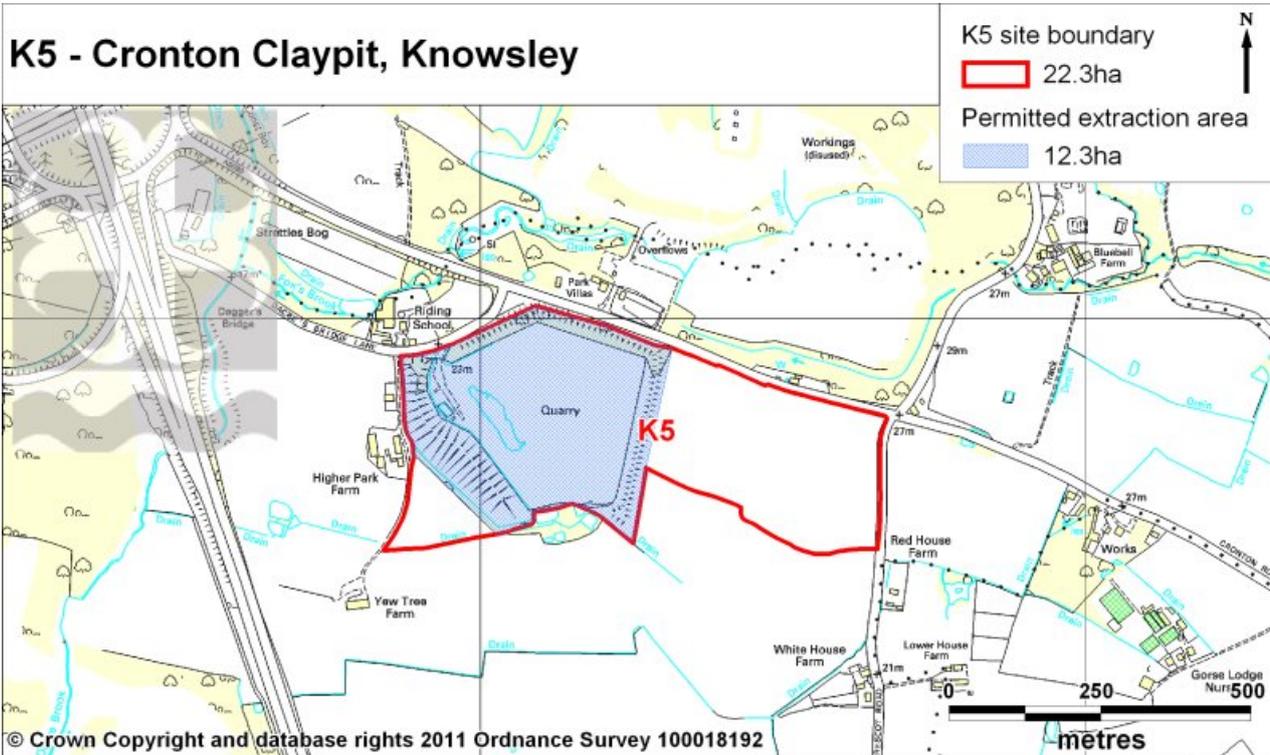
© Crown Copyright and database rights 2011 Ordnance Survey 100018192

| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✗ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✗ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX



K5 - Cronton Claypit, Knowsley



© Crown Copyright and database rights 2011 Ordnance Survey 100018192

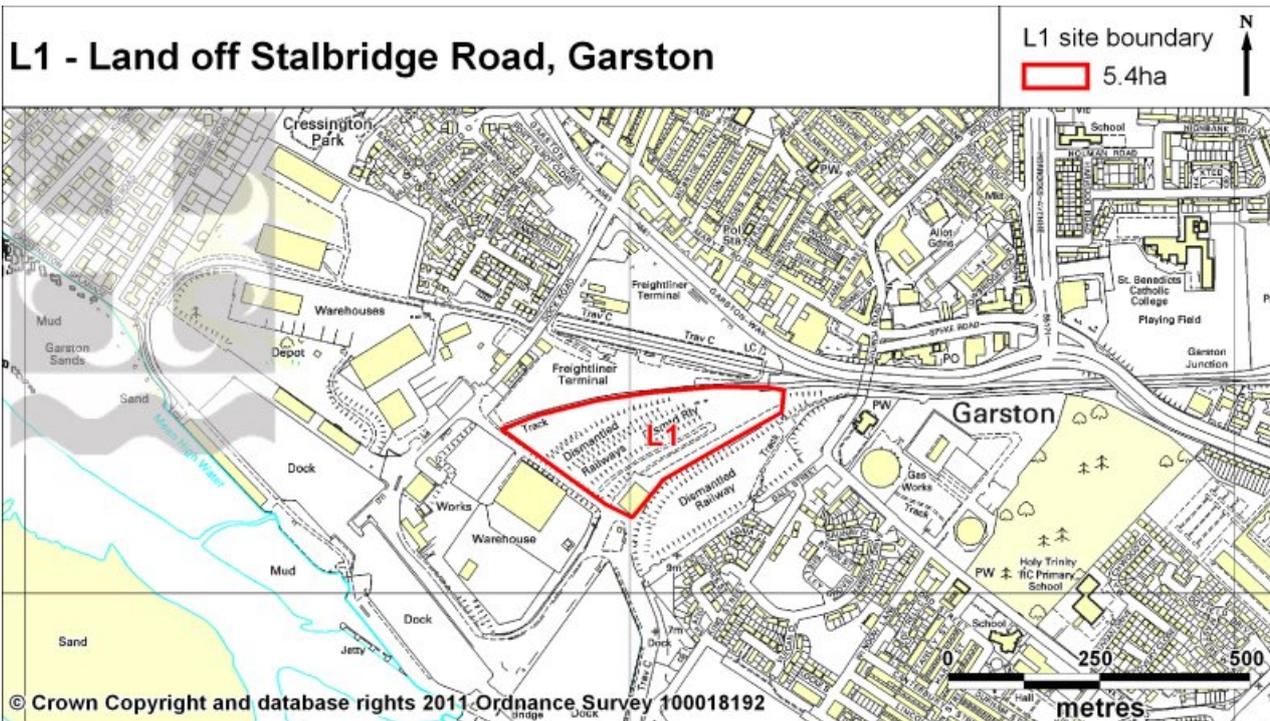
Suggested Waste Management Use

Inert Landfill



To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX

L1 - Land off Stalbridge Road, Garston



© Crown Copyright and database rights 2011 Ordnance Survey 100018192

Suggested Waste Management Use

HWRC



Re-Processor



Thermal Treatment



WTS



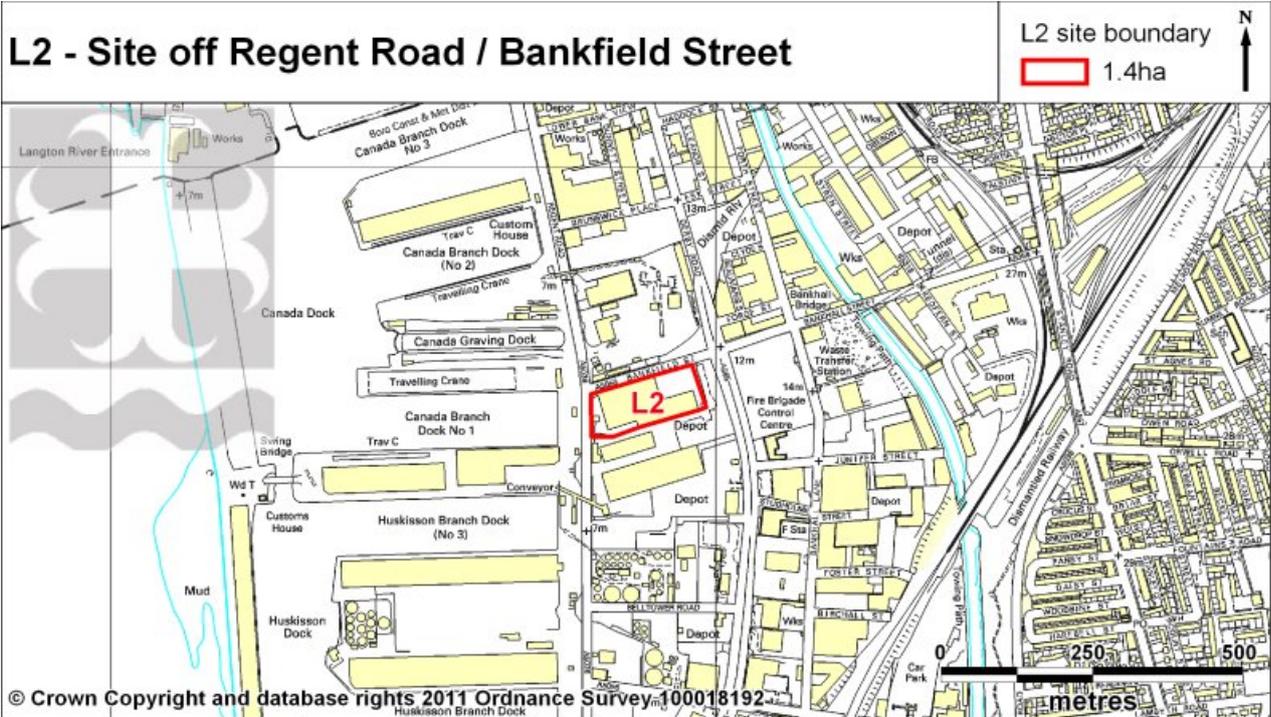
Primary Treatment



RRP

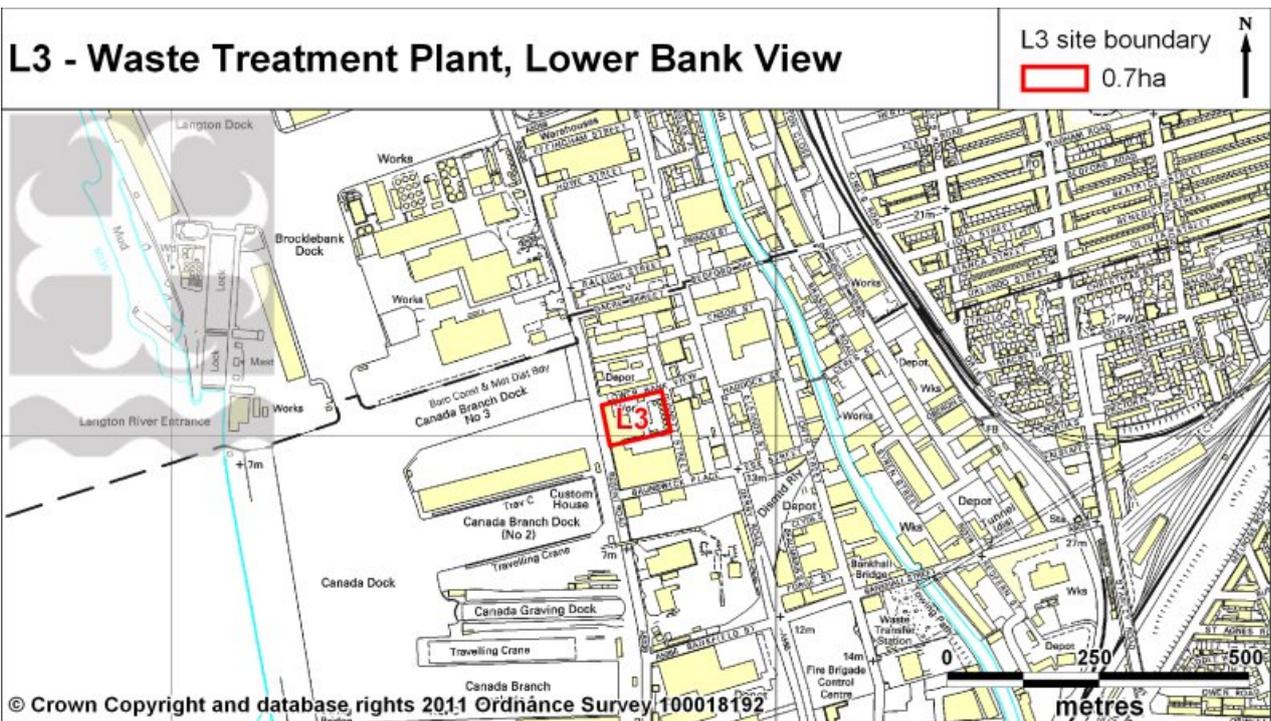


To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX



| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✓ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✗ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX



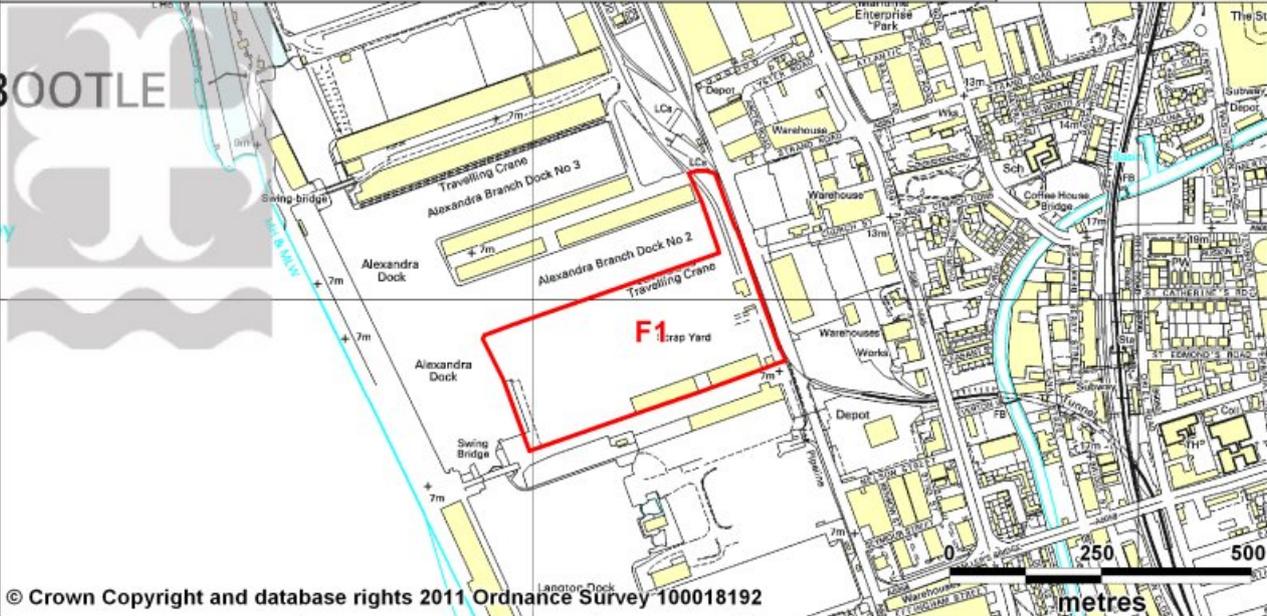
| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✓ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✗ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX



F1 - Alexandra Dock 1, Metal Recycling Facility

F1 site boundary
 9.8ha



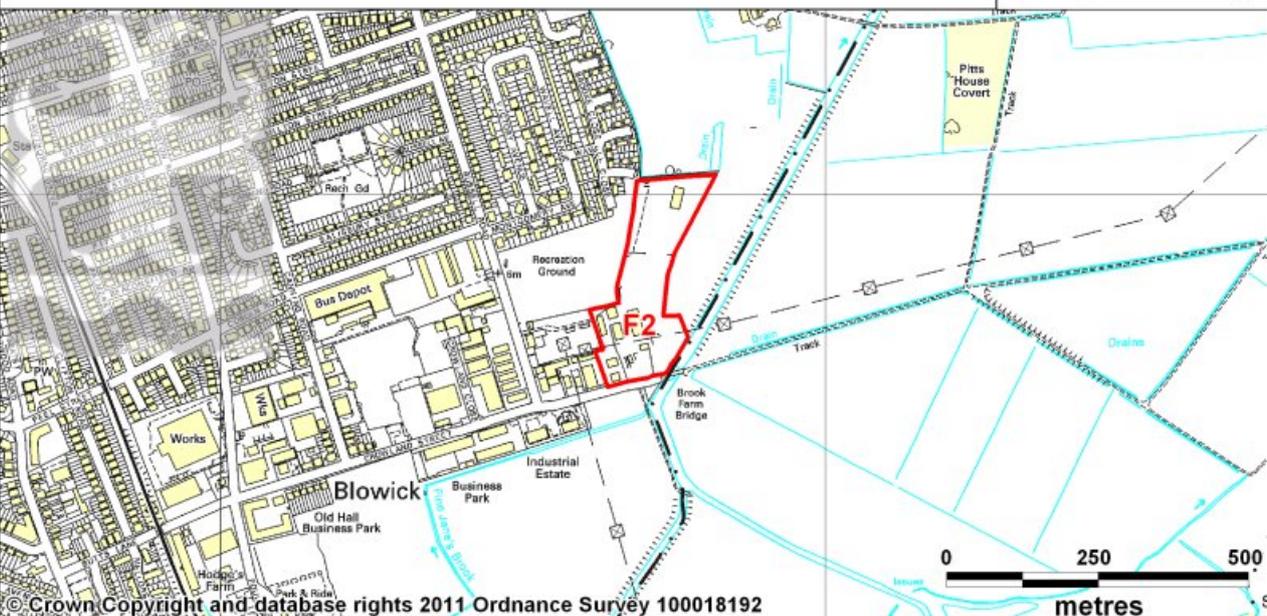
© Crown Copyright and database rights 2011 Ordnance Survey 100018192

| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✓ | Thermal Treatment | ✓ |
| | WTS | ✗ | Primary Treatment | ✓ | RRP | ✗ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX

F2 - 55 Crowland Street, Southport

F2 site boundary
 3.6ha



© Crown Copyright and database rights 2011 Ordnance Survey 100018192

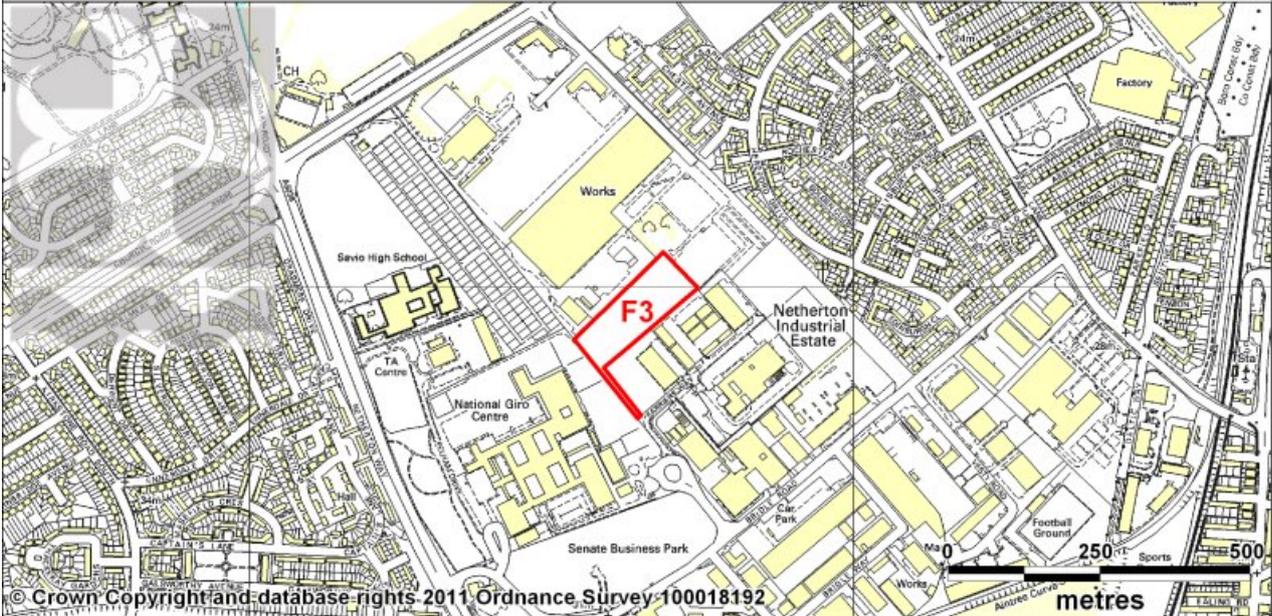
| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✓ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✗ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX



F3 - Site North of Farriers Way, Atlantic Business Park

F3 site boundary
 1.7ha

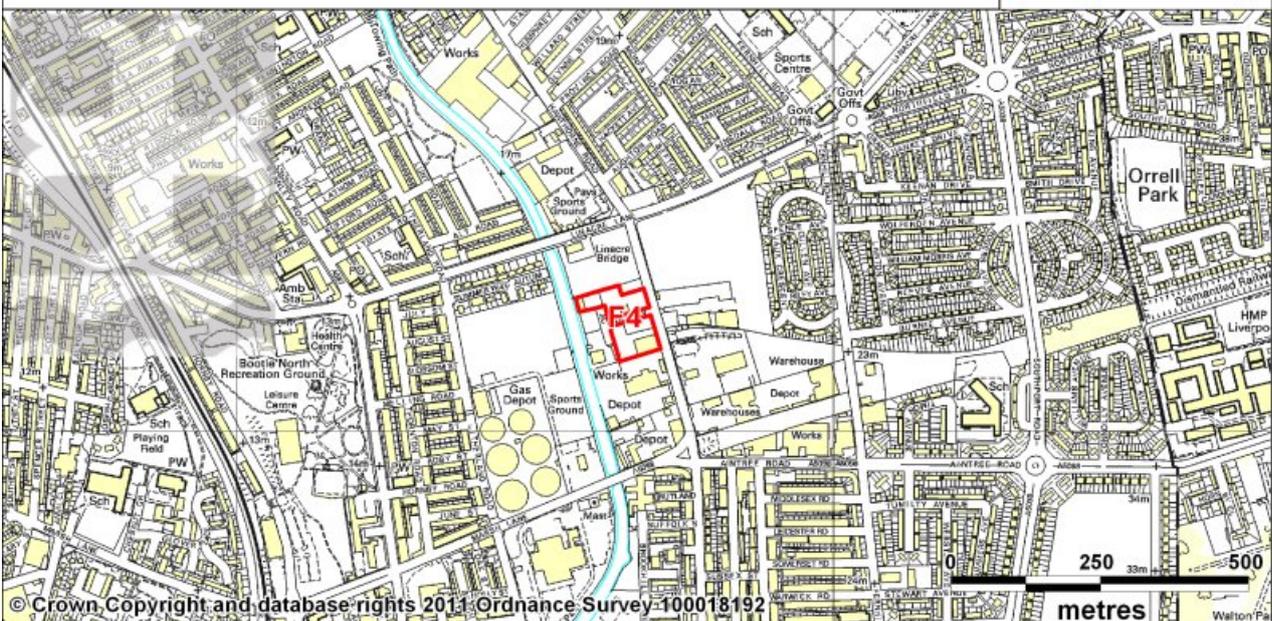


| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✓ | Thermal Treatment | ✗ |
| | WTS | ✗ | Primary Treatment | ✓ | RRP | ✗ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX

F4 - 1-2 Acorn Way, Bootle

F4 site boundary
 0.8ha



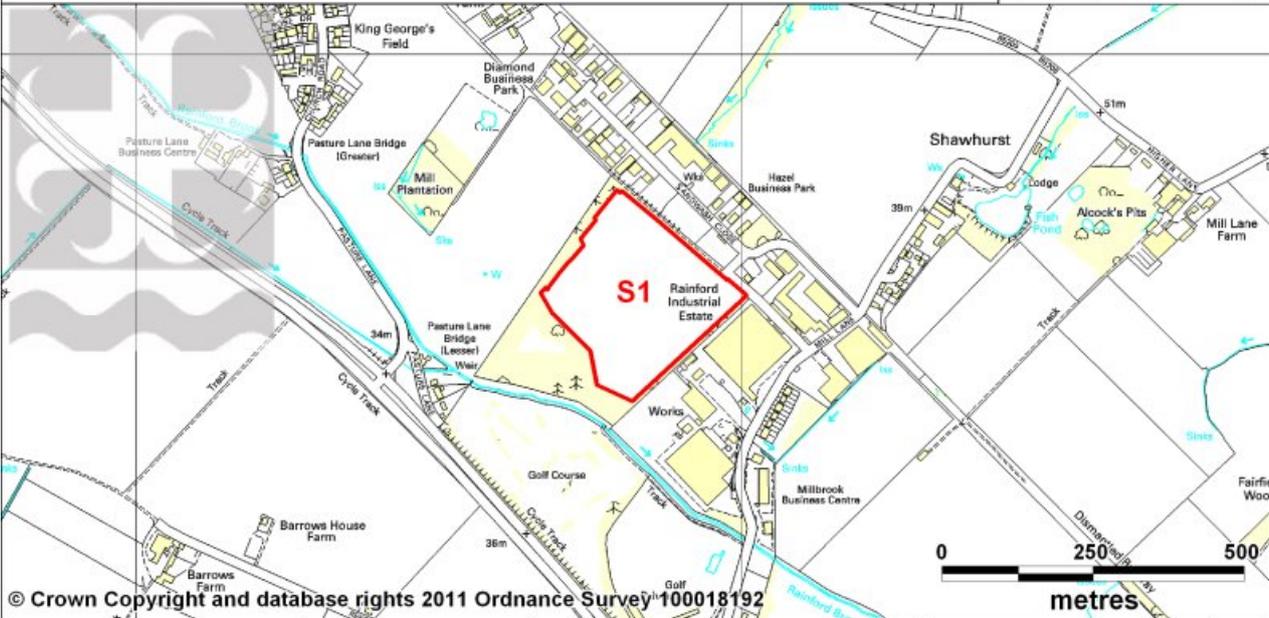
| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✓ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✗ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX



S1 - Land SW of Sandwash Close, Rainford Industrial Estate

S1 site boundary
 6.1ha

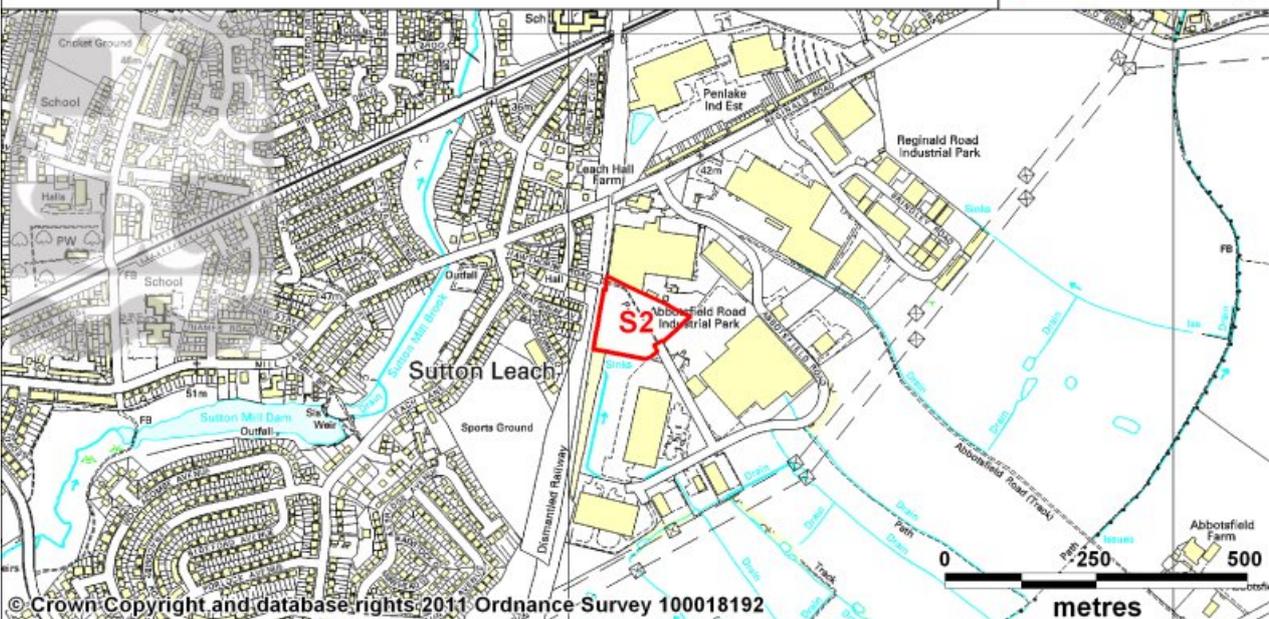


| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✓ | Thermal Treatment | ✗ |
| | WTS | ✗ | Primary Treatment | ✓ | RRP | ✓ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX

S2 - Land North of T.A.C., Abbotsfield Industrial Estate

S2 site boundary
 1.3ha

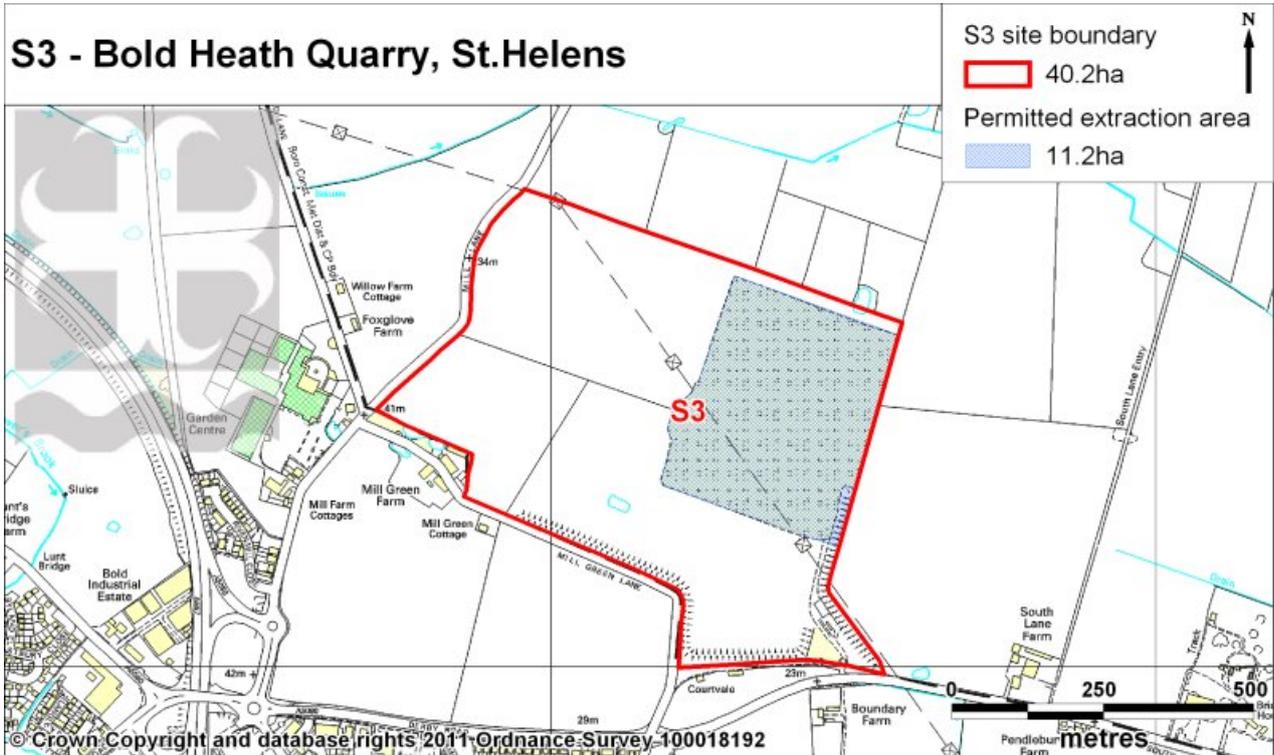


| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✓ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✗ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX



S3 - Bold Heath Quarry, St.Helens

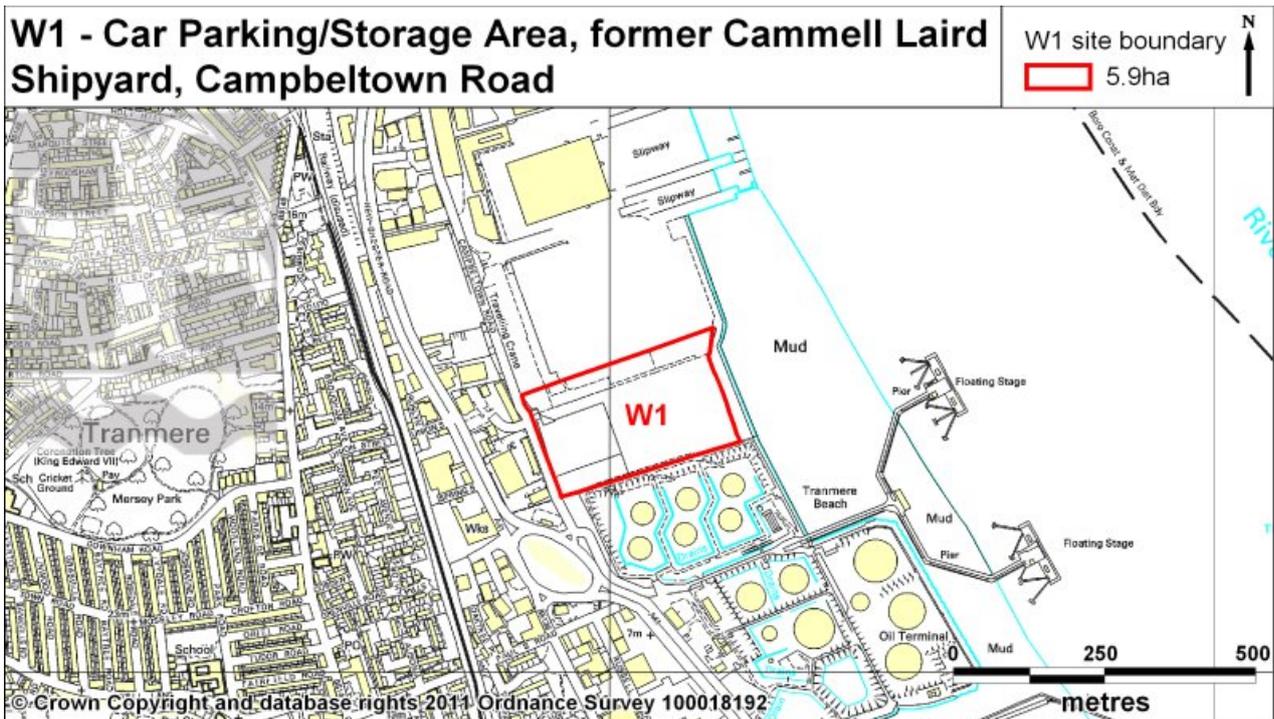


© Crown Copyright and database rights 2011 Ordnance Survey 100018192

| | | |
|--------------------------------|----------------|---|
| Suggested Waste Management Use | Inert Landfill | ✓ |
|--------------------------------|----------------|---|

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX

W1 - Car Parking/Storage Area, former Cammell Laird Shipyard, Campbelltown Road



© Crown Copyright and database rights 2011 Ordnance Survey 100018192

| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✓ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✗ |

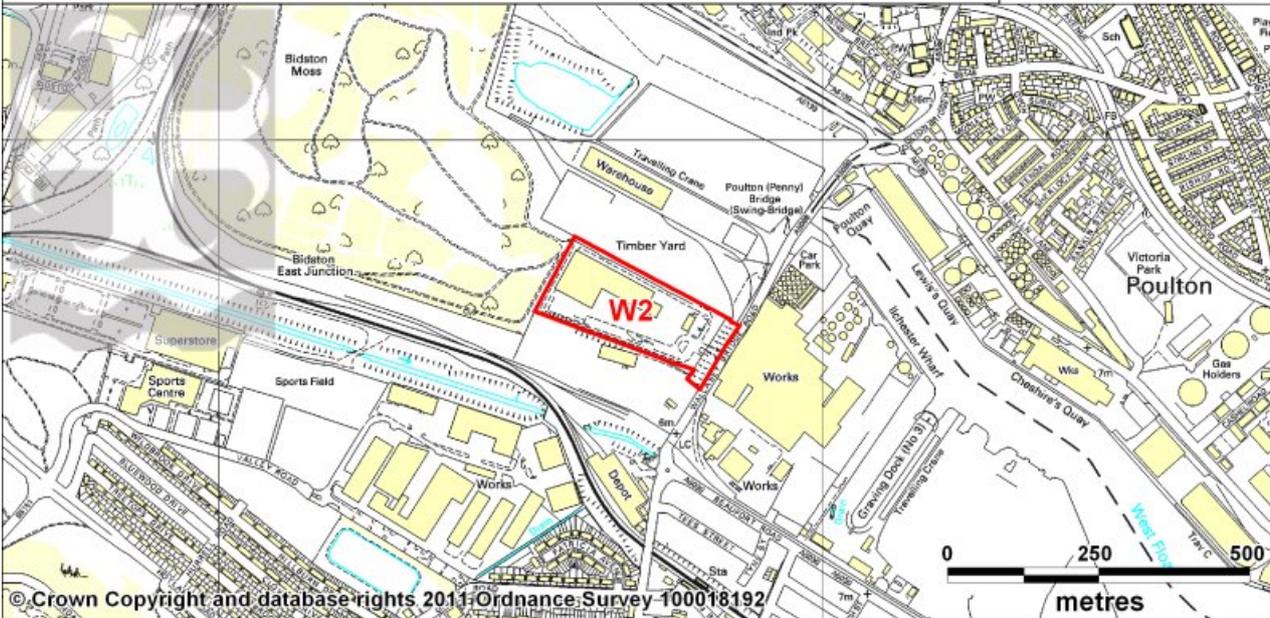
To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX



W2 - Bidston MRF / HWRC, Wallasey Bridge Road

W2 site boundary

3.7ha



© Crown Copyright and database rights 2011 Ordnance Survey 100018192

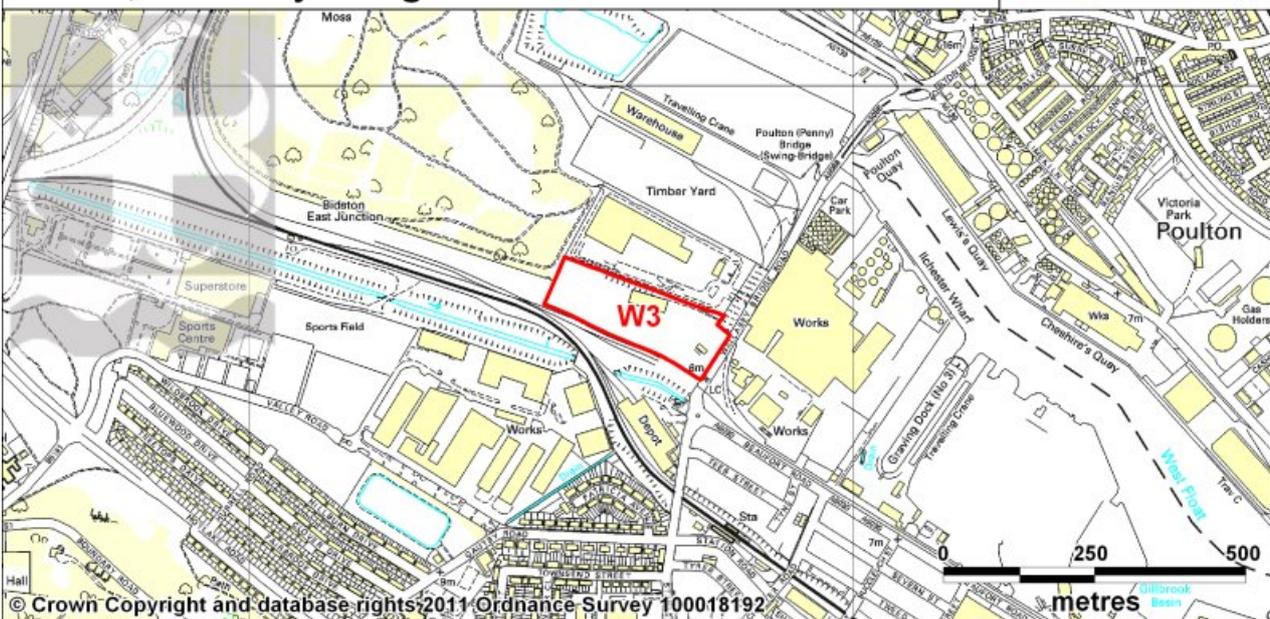
| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✓ | Re-Processor | ✓ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✗ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX

W3 - Former Goods Yard, Adjacent Bidston MRF / HWRC, Wallasey Bridge Road

W3 site boundary

2.8ha



© Crown Copyright and database rights 2011 Ordnance Survey 100018192

| | | | | | | |
|--------------------------------|------|---|-------------------|---|-------------------|---|
| Suggested Waste Management Use | HWRC | ✗ | Re-Processor | ✓ | Thermal Treatment | ✗ |
| | WTS | ✓ | Primary Treatment | ✓ | RRP | ✗ |

To read the full site profile refer to supporting document "Waste DPD Site Profiles" page no. XX