Leicestershire County Council

WASTE NEEDS ASSESSMENT

November 2014

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Executive Summary

This document has been produced to support the production of Leicestershire's Minerals and Waste Local Plan. The document sets out the following waste streams that the County Council will plan for: agricultural, commercial & industrial, construction & demolition, hazardous, local authority collected and low level radioactive. For each waste stream estimates of arisings until 2030/31, the methods of future management, current capacities, and requirements have been provided.

In general terms, the focus of the County Council is to seek to provide sufficient capacity to manage the equivalent to that waste arising in Leicestershire and direct greater levels of waste away from disposal to landfill. Sufficient operational capacity appears to exist to manage the recycling and composting of local authority collected and construction & demolition wastes; a relatively small shortfall in the recycling of commercial & industrial waste may exist but sufficient recycling capacity has been permitted to manage this waste stream. Shortfalls in currently operational capacity are predicted for the management, after recycling, of commercial & industrial, and local authority collected wastes but there is adequate permitted recovery capacity of 335,000 tonnes to manage this waste. In terms of inert waste beyond recycling, a shortfall in landfill is identified, even with permitted but not operational capacity, by 2030/31. The County is a net exporter of hazardous waste and to achieve a net self-sufficiency increased capacity may be required.

1.0 Introduction

Minerals and Waste Local Plan

1.1 Leicestershire County Council is responsible for minerals and waste planning in the administrative area of Leicestershire (outside the City of Leicester). The Council is in the process of reviewing its current planning policies dealing with mineral extraction and waste management. The intent is to produce a single document to cover the period until 2030/31 – the Leicestershire Minerals and Waste Local Plan.

1.2 To support the production of the Local Plan this document sets out the waste streams that the County Council will plan for and provides estimates of the quantity of each waste stream that will be produced within Leicestershire. Alongside this are estimates on how each waste stream will be managed and the assumed current capacity of the County's waste management facilities. To make it easier to understand the estimates, in the main, the figures are provided at three key years of 5 year intervals to show the trends (these are 2020/21, 2025/26 and 2030/31).

1.3 Available data on the waste streams of Construction & Demolition (C&D) and Commercial & Industrial (C&I) wastes are produced on a national scale. The recent study by Defra on C&I waste (Defra, 2011a) is explicit in that it did not cover waste arising from construction and demolition (C&D) to avoid any double counting and although it did include hazardous waste, it did not disaggregate this from total C&I waste. The most recent C&D study by WRAP (WRAP, 2010) focussed primarily on inert waste. For the provision of estimates C&I waste is assumed to be non-inert and non-hazardous, and C&D waste inert and non-hazardous. Hazardous waste is dealt with separately in this document. Therefore, this document is set out with each chapter dealing with one particular waste stream beginning with Local Authority Collected Waste (LACW) (previously defined as Municipal Solid Waste (MSW)) through to agricultural waste. Principally, the chapters do not contain detailed data tables and these are contained within the appendix to this document.

2.0 Local Authority Collected Waste

Arisings

2.1 In previous planning policy documents produced by the County Council (including the Issues Document of November 2013) the terminology Municipal Solid Waste (MSW) has been used to describe that waste collected by Leicestershire's local authorities. However, advice from the Environment Agency is that the term Local Authority Collected Waste (LACW) is now a more applicable term to describe such waste. As such this terminology will be used throughout this document and references to LACW should be regarded as synonymous to MSW where reference is made to previously published data and/or documents. In the adopted Waste Core Strategy (LCC, 2009) the basis of the LACW figures was the apportionment tables from the East Midlands Regional Plan (GOEM, 2009). Using Leicestershire's LACW arisings at that time, the estimate produced from the Regional Plan was that 425,150 tonnes of LACW would arise in 2009/10. The actual data for Leicestershire were that in 2009/10 352,847 tonnes was produced, so actual waste arisings for 2009/10 in Leicestershire were 17% less than that predicted by the East Midlands Regional Plan. The difference between actual and predicted arisings is highlighted further by the fact that current arisings (337,689 tonnes in 2012/13) would have to increase by 124,861 tonnes in the next two years to attain the predicted arisings of 462,550 tonnes by 2014/15.

2.2 Table 1 below presents the actual LACW arisings for Leicestershire between 2001/02 and 2012/13. From the data it can be seen that there has been a general trend downwards in arisings from 2006/07 and before this arisings fluctuated between increase and decrease. The average annual change to LACW arisings between the years shown in Table 1 is -0.6%. During the same period there have also been reduced levels of waste going to landfill, with the Authority currently sending less than 33% of collected waste to landfill.

Table 1: LACW (Local Authority Collected Waste) arisings in Leicestershire

Year	LACW arisings (tonnes)	% difference
2001/02	358,663	-
2002/03	371,933	3.57
2003/04	366,980	-1.35
2004/05	385,821	4.88
2005/06	375,433	-2.77
2006/07	375,434	0.00
2007/08	375,246	-0.05
2008/09	359,774	-4.30
2009/10	352,847	-1.96
2010/11	346,373	-1.87
2011/12	335,848	-3.13
2012/13	337,689	0.55

Growth Predictions

2.3 The East Midlands Regional Plan (the basis for the Waste Core Strategy LACW figures) applied a growth rate to this waste of 3.6% until 2006, 1.7% from 2007 to 2015 and zero growth from 2016 to 2026. The Council's Municipal Waste Management Strategy 2006 (LWP, 2006) stated that an annual growth in household waste arisings of 2-3% had occurred in the ten years to 2004/05. Subsequently, the County Council produced an Expression of Interest document (LCC, 2008a) as part of the Waste PFI (Private Finance Initiative) project. This stated that between 2001/02 and 2006/07 municipal waste arisings in Leicestershire had increased per annum by about 1%. The same document predicted that collected waste from households would have zero growth from 2015 with the levels of waste growth prior to 2015 gradually decreasing so they attain zero by 2015. However, once all the elements that may affect municipal waste growth were included annual growth of municipal waste was modelled to increase at around 0.8% until 2040.

2.4 The County Council undertook an update to the Municipal Waste Management Strategy in 2011 (LWP, 2012). No new data were produced within this document to model the changes to waste arisings. The Waste Management Plan for England (December 2013) states that household waste generated in England has been falling since 2007/08 at an average rate of about 2% a year. As explained above, for Leicestershire, between 2001/02 and 2012/13 the average annual change to Local Authority Collected Waste arisings was -0.6%. However, statistical data on dwelling completions indicates that numbers will increase by some 3,000 dwellings a year, equating to an approximate 1% growth in dwellings per annum to 2033.

2.5 So, from analysis of the data sources, the local data show that the amount of waste each household creates will either decrease or will not alter. However, the number of households is predicted to increase by about 1% a year. Thus, even with the waste each dwelling produces decreasing the number of dwellings producing waste will be increasing, resulting in a net increase to waste production; hence the 0.8% increase modelled in the Expression of Interest document. However, the projected growth in household numbers used in the Expression of Interest document was taken from the Leicester, Leicestershire and Rutland Structure Plan – a document that was replaced by the Regional Plan which was itself abolished. Use of this growth rate in dwellings would not now be reasonable and the newer data on dwelling completions should be used. Table 2 sets out the effects of assuming that the waste from each household declines by 0.6% (as per the average change 2001-2013) and that the waste from each household remains constant; in both cases household numbers increase by 1% per annum.

2.6 The reasons for the recent decreases in LACW arisings are complicated and no one factor is probably attributable. But, it should be considered what would be the consequences if LACW arisings increase at a rate comparable to that seen in the previous period of economic growth. The Council's data from 2001/02 to 2007/08 shows an average annual increase in LACW arisings of 0.7%. Table 3 below shows the results of an increase in LACW arisings per household and an increase in households.

Table 2: LACW (Local Authority Collected Waste) predicted arisings and dwelling completions in Leicestershire – declining or static waste arisings created by households scenarios

Year	Households (number)	LACW Arisings (tonnes)	Annual increase to arisings	LACW arisings (tonnes)	Annual increase to arisings
		Assumes waste produced by each household declines by 0.6% per annum		Assumes waste produced by each household remains static	
2013/14	276,933	338,577	-	340,620	-
2014/15	279,317	339,442	0.3%	343,552	0.9%
2015/16	281,700	340,284	0.2%	346,483	0.9%
2016/17	284,083	341,104	0.2%	349,415	0.8%
2017/18	286,467	341,902	0.2%	352,346	0.8%
2018/19	288,850	342,678	0.2%	355,278	0.8%
2019/20	291,233	343,432	0.2%	358,209	0.8%
2020/21	293,617	344,165	0.2%	361,140	0.8%
2021/22	296,000	344,877	0.2%	364,072	0.8%
2022/23	299,889	347,312	0.7%	368,855	1.3%
2023/24	303,778	349,705	0.7%	373,638	1.3%
2024/25	307,667	352,057	0.7%	378,422	1.3%
2025/26	311,556	354,368	0.7%	383,205	1.3%
2026/27	315,444	356,638	0.6%	387,988	1.2%
2027/28	319,333	358,869	0.6%	392,771	1.2%
2028/29	323,222	361,060	0.6%	397,555	1.2%
2029/30	327,111	363,211	0.6%	402,338	1.2%
2030/31	331,000	365,324	0.6%	407,121	1.2%

Table 3: LACW (Local Authority Collected Waste) predicted arisings and dwelling completions in Leicestershire – increasing waste arisings created by households scenario

Year	Households (number)	LACW arisings (tonnes)	Annual increase to arisings (%)
		Assumes waste produced by each household increases by 0.7% per annum	
2013/14	276,933	343,005	-
2014/15	279,317	348,378	1.6%
2015/16	281,700	353,811	1.6%
2016/17	284,083	359,302	1.6%
2017/18	286,467	364,852	1.5%
2018/19	288,850	370,463	1.5%
2019/20	291,233	376,134	1.5%
2020/21	293,617	381,867	1.5%
2021/22	296,000	387,661	1.5%
2022/23	299,889	395,504	2.0%
2023/24	303,778	403,437	2.0%
2024/25	307,667	411,462	2.0%
2025/26	311,556	419,579	2.0%
2026/27	315,444	427,790	2.0%
2027/28	319,333	436,096	1.9%
2028/29	323,222	444,496	1.9%
2029/30	327,111	452,993	1.9%
2030/31	331,000	461,587	1.9%

2.7 The three different scenarios set out above show that subtle differences in the amount of waste that each household produces can have a large impact over the total LACW that will arise by 2030/31; a maximum of 96,263 tonnes. The three forecasts for LACW arisings have been plotted in Figure 1 below.

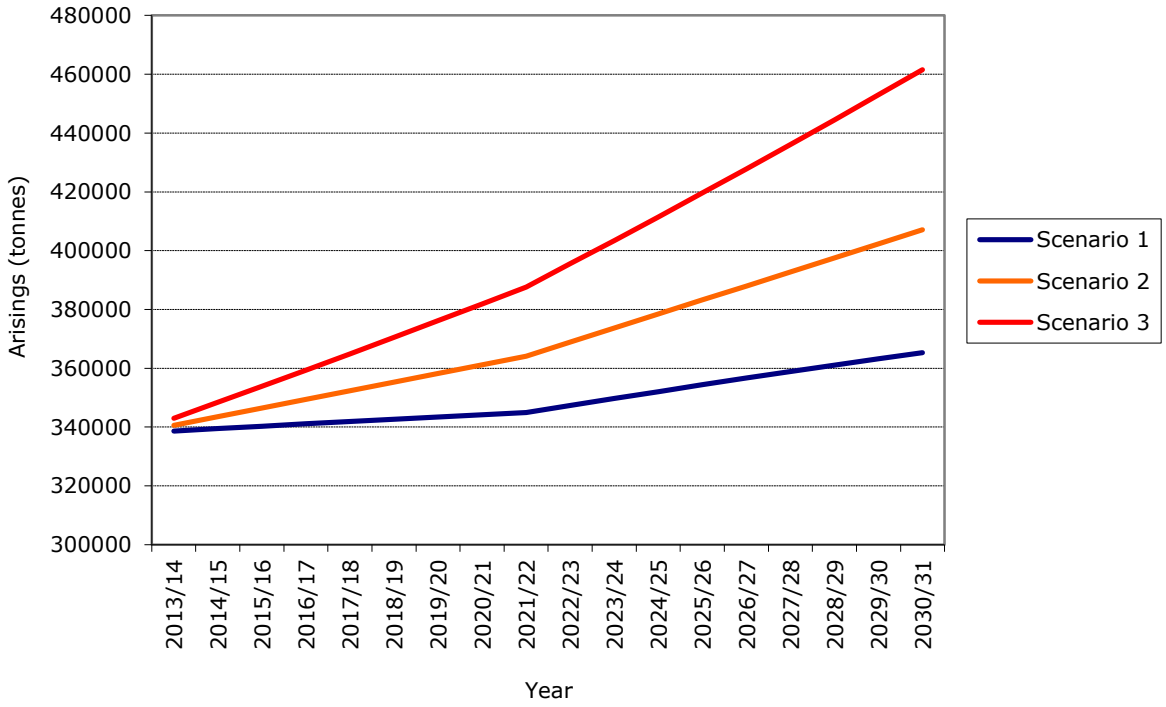

Figure 1: Predicted LACW arisings in Leicestershire up to 2030/31.

Scenario 1 = 1% increase to household numbers and a 0.6% annual decrease in waste arisings from each household
Scenario 2 = 1% increase to household numbers and no annual change in waste arisings from each household
Scenario 3 = 1% increase to household numbers and a 0.7% annual increase in waste arisings from each household

It has been decided that the middle of the three scenarios is used to predict LACW arisings, i.e. a 1% increase to household numbers and the waste each household produces does not change. This would be consistent with the most recent publication modelling LACW arisings (the Expression of Interest document) and results in LACW estimated arisings as set out in Table 4 below.

Table 4: LACW (Local Authority Collected Waste) arisings in Leicestershire at key years

Key years	LACW arisings (tonnes)
2020/21	361,140
2025/26	383,205
2030/31	407,121

Recycling

2.8 Table 5 shows the recycling rate of LACW for the last five available years, the term recycling is used throughout this document but it should be taken to incorporate reuse and composting unless stated otherwise. There is a general trend of increasing rates so that over 50% of this waste stream is now recycled.

Table 5: LACW (Local Authority Collected Waste) arisings and percentage recycled

Year	LACW arisings (tonnes)	LACW recycled (%)
2008/09	359,774	46.0
2009/10	352,847	52.6
2010/11	346,373	51.1
2011/12	335,848	51.2
2012/13	337,689	52.3

2.9 The Municipal Waste Management Strategy sets a target for recycling and composting 58% of collected waste by 2017. The Waste Core Strategy used the same target for Leicestershire's LACW with an interim target of 53% by 2015. Using the LACW arisings set out in Table 4 and a recycling target of 58% post 2016, Table 6 presents the level of recycling to be achieved.

Table 6: LACW (Local Authority Collected Waste) recycling requirement in Leicestershire at key years

Key years	LACW recycling requirement (tonnes)
2020/21	209,461
2025/26	222,259
2030/31	236,130

2.10 Table A of Appendix 1 shows the operational capacity of sites that to the knowledge of the County Council solely or principally manage municipal waste. Data were, in the main taken from the Environment Agency's Waste Data Interrogator by selecting the maximum capacity the facility had operated at between 2006 to 2012. The combined capacity for the recycling, composting and transfer of waste at these sites is in the region of 301,000tpa (301,545.12tpa). Thus, sufficient capacity appears to exist to manage the recycling and composting of this waste stream. The temporary nature of the Lount composting site may become an issue is the permission is not renewed but this would still be dependent on the ability of other sites to handle this waste and the quantity of green waste being collected from households.

Recovery

2.11 The Waste Core Strategy assumed a total landfill diversion target for LACW of 79% by 2019/20 (of which 58% was recycling and 21% recovery). This target was derived from the Regional Plan which was itself based upon the target needed by the Authority to meet the landfill diversion target set by the Landfill Allowance Trading Scheme (LATS); this scheme has ceased. With the revocation of the Regional Plan there are no targets that apply to the whole of the collected waste stream beyond those set out above. The term recovery can be synonymous with landfill diversion and, thus, includes value recovery (recycling and so forth) and energy recovery. In this document the Council uses recovery to describe that fraction of the waste stream that is neither recycled nor disposed of to landfill (or other means). The target for the recovery of LACW will remain at 21%, so, that once the 58% has been recycled a further 21% of the arisings will be diverted away from landfill, i.e. recovered. Table 7 below sets out the recovery requirement at key years.

Table 7: LACW (Local Authority Collected Waste) recovery requirement in Leicestershire at key years

Year	LACW recovery requirement (tonnes)
2020/21	75,840
2025/26	80,473
2030/31	85,495

The current capacity for the recovery of LACW and the shortfall that may or may not exist will be discussed in the following chapter alongside C&I waste; given the similarities in technologies and facilities that may be utilised for both waste streams.

Residual

2.12 Once the targets for recycling and recovery have been achieved an amount of the waste stream will remain which will need to be disposed of. This residual waste principally goes to landfills. As with recovery capacity any shortfalls in residual capacity is discussed in the successive chapter. However, Table 8 below shows the residual waste which could arise at the key years.

Table 8: LACW (Local Authority Collected Waste) residual requirement in Leicestershire at key years

Key years	LACW residual requirement (tonnes)
2020/21	75,840
2025/26	80,473
2030/31	85,495

Summary

Table 9: LACW (Local Authority Collected Waste) arisings and recycling, recovery and residual requirements in Leicestershire at key years

Key Years	LACW arisings (tonnes)	LACW recycling requirement (tonnes)	LACW recovery requirement (tonnes)	LACW residual requirement (tonnes)
2020/21	361,140	209,461	75,840	75,840
2025/26	383,205	222,259	80,473	80,473
2030/31	407,121	236,130	85,495	85,495

3.0 Commercial & Industrial Waste

Arisings

3.1 The East Midland's Regional Plan data were used for calculating the need for new capacity for managing Commercial and Industrial (C&I) waste in the Waste Core Strategy. The Regional Plan data came from the East Midlands Regional Waste Strategy (EMRA, 2006) which was itself based upon a 2002/03 study, undertaken by the Environment Agency. Since the 2002/03 publication, the *Study into Commercial & Industrial Waste Arisings, April 2009, ADAS* and the *Commercial & Industrial Waste Survey 2009 Final Report, May 2011, Defra* (Defra, 2011a) have been published. Table 10 below presents the estimated arisings for England from these three studies. Table 11 shows the estimates for the East Midlands Region from the two most recent studies and the Regional Plan.

Table 10: Estimated C&I waste arisings for England

EA data for 2002/03 (tonnes)	ADAS data for 2009 (tonnes)	Defra data for 2009 (tonnes)
67,907,000	58,612,000	47,928,342

Table 11: Estimated C&I waste arisings for the East Midlands region

Regional Plan data for 2009/10 (tonnes)	ADAS data for 2009 (tonnes)	Defra data for 2009 (tonnes)
6,232,000*	6,158,917	6,308,199

**The figure excludes 2,002,000 tonnes of waste from the total C&I waste arising in the region which was produced principally from power stations in Nottinghamshire, whereas the most recent studies have not removed this element.*

3.2 As already noted the Environment Agency data from 2002/03 were used in the production of the waste data for the Regional Plan and was 'apportioned' out to sub-regions; the relevant sub-region being Leicestershire, Leicester and Rutland. The assumption used in the Regional Plan was that these three administrative areas contributed about 24% of the total C&I waste arisings for the East Midlands region (after excluding waste arising from power stations). Ultimately, this

produced an estimated figure of 1,505,000 tonnes of C&I waste arising in Leicestershire, Leicester and Rutland in 2009/10.

3.3 The ADAS study split the regional totals into individual Waste Planning Authorities producing figures of 794,677 tonnes, 359,324 tonnes and 17,431 tonnes for Leicestershire, Leicester and Rutland, respectively; addition of these three figures results in a total C&I waste arising of 1,171,432 tonnes for the sub-region of Leicestershire, Leicester and Rutland (19% of the East Midlands total).

3.4 From initial analysis of the figures published in the Regional Plan and the ADAS study it can be seen that disaggregating regional data to sub-regional levels has resulted in Leicestershire, Leicester and Rutland being calculated as contributing 24% and 19% of the East Midlands total, respectively. However, the ADAS study did not remove the waste arising from Nottinghamshire power stations whereas the Regional Plan did. If the waste from power stations is added back into the C&I arisings of the Regional Plan then the regional total becomes 8,234,000 tonnes of C&I waste arising in 2009/10 (6,232,000 + 2,002,000); Leicestershire, Leicester and Rutland's contribution to this regional total would be just over 18%. So, with all C&I waste arisings accounted for it was estimated that the Leicestershire sub-region would contribute 18% to the East Midlands' total in 2009/10 by the Regional Plan and estimated by the ADAS study that it was 19% of the total. To ensure a robust prediction of C&I arisings the higher percentage of 19% will be used subsequently.

3.5 The Defra study did not split the data into sub-regional levels but if 19% of the published East Midlands' total (which includes the waste from Nottinghamshire's power stations) is calculated this gives a figure of 1,198,558 tonnes for Leicestershire, Leicester and Rutland. Table 12 below presents the estimates of C&I wastes arising in Leicestershire, Leicester and Rutland from the three studies. The most recent studies reflect the decline in waste arisings during the change in national economic circumstances and, therefore, are the better starting point that the Regional Plan data. Of these, the Defra data is the more recent and will be used to predict arisings.

Table 12: Estimated C&I waste arisings for Leicestershire, Leicester and Rutland

Regional Plan data for 2009/10 (tonnes)	ADAS data for 2009 (tonnes)	Defra data for 2009 (tonnes)
1,505,000	1,171,432	1,198,558

3.6 To produce a figure for Leicestershire, a proportion needs to be removed from the latest C&I waste figure that Leicester and Rutland create. The ADAS study is the only study that splits data into Waste Planning Authorities and it calculated that Leicester and Rutland produced 32% of the sub-region's C&I waste (376,755 tonnes of 1,171,432 tonnes). Therefore, it seems reasonable to remove 32% of the total arising to produce a figure for Leicestershire. 32% of 1,198,558 tonnes is 383,539 tonnes leaving 815,019 tonnes of C&I waste arising in Leicestershire in 2009.

Growth Predictions

3.7 To project the C&I waste arisings until 2024/25 the Regional Plan assumed a 2% growth until 2006, then a 1% growth from 2007 to 2015 and zero growth from 2016 onwards. Given that we are now in 2015 to use this scenario would result in no growth in C&I arisings. Alongside the *Review of the Waste Strategy for England* Defra published a paper on *The Economics of Waste and Waste Policy* (Defra, 2011b). This acknowledged that the best 'fit' for predicting C&I arisings up to 2030 was to apply a rate of change of -0.2% per annum to commercial waste and a 0.57% per annum increase to industrial waste. Of course, to be able to apply such a rate the C&I arisings would need to be split into their constituent parts. The ADAS study provides the level of detail to enable this to be undertaken. The commercial sector (retail & wholesale, other services, and public sector) in Leicestershire produced 369,768 tonnes. Therefore, as a percentage of the total C&I waste arising (794,677 tonnes), commercial waste made up about 47%. Table 13 displays the result of applying the rates of change from the Defra policy paper to the 815,019 tonnes of C&I waste estimated to have been produced in 2009; splitting C&I waste into 47% (commercial):53% (industrial).

Table 13: C&I (Commercial & Industrial) waste predicted arisings in Leicestershire

Year	Commercial waste arisings (tonnes)	Industrial waste arisings (tonnes)	C&I waste arisings (tonnes)
2009/10	383,059	431,960	815,019
2010/11	382,293	434,422	816,715
2011/12	381,528	436,899	818,427
2012/13	380,765	439,389	820,154
2013/14	380,004	441,894	821,897
2014/15	379,244	444,412	823,656
2015/16	378,485	446,945	825,431
2016/17	377,728	449,493	827,221
2017/18	376,973	452,055	829,028

ctd.

Table 13 continued

Year	Commercial waste arisings (tonnes)	Industrial waste arisings (tonnes)	C&I waste arisings (tonnes)
2018/19	376,219	454,632	830,851
2019/20	375,467	457,223	832,690
2020/21	374,716	459,829	834,545
2021/22	373,966	462,450	836,417
2022/23	373,218	465,086	838,305
2023/24	372,472	467,737	840,209
2024/25	371,727	470,404	842,130
2025/26	370,983	473,085	844,068
2026/27	370,241	475,781	846,023
2027/28	369,501	478,493	847,994
2028/29	368,762	481,221	849,983
2029/30	368,024	483,964	851,988
2030/31	367,288	486,722	854,011

Recycling

3.8 In terms of recycling rates the Regional Plan assumed a rate of 42% throughout the plan period. Of the two most recent publications on C&I waste only the Defra study split the arisings into waste management methods. So for the East Midlands in 2009, 48.73% was recycled, reused and composted, and 10% was treated in various manners with the remainder being disposed to landfill. Without any data to the contrary Leicestershire is considered to reflect the region and, therefore, almost 49% of C&I waste was recycled; 48.73% of the arisings of 815,019 tonnes is 397,159 tonnes. Table B of Appendix 1 presents an operational C&I recycling capacity in Leicestershire of 393,544.052 tonnes (897+390,634.072+2,012.98), the similarity in the figures gives confidence that the arisings figure for C&I waste is a good starting point for estimating future arisings.

3.9 The target for the recycling of LACW is 58% of the total waste arisings; this meets the Waste Directive (EC, 2008) requirement for Member States to recycle 50% of the paper, metal, plastic and glass from households and similar waste streams by 2020. Given the progress already made in the recycling of C&I waste it would seem appropriate to apply a recycling target of 50% as a minimum to the C&I waste stream with a higher target of 58% to that part akin to LACW. Defra estimate that of the 47.97Mt (million tonnes) of C&I waste generated in England in 2009 24.7Mt was of a similar nature and composition to household waste (Forecasting 2020 waste arisings and treatment capacity, Defra, February

2013 (Defra, 2013a)). Thus, 52% of the waste stream is directly akin to Local Authority Collected Waste to which the 58% target can be applied; assuming that the proportion of C&I waste which is similar to LACW is constant across the Country and that is stays constant the County Council. To the other, slightly smaller fraction of C&I waste the recycling target of 50% will apply. The intent is to achieve the elevated 58% target by 2030/31 with an interim target of 54% by 2025/26. Table 14 shows the quantity of C&I waste that will need to be recycled at key years to achieve this by 2030/31.

Table 14: C&I (Commercial & Industrial) waste recycling requirement in Leicestershire at key years

Key years	C&I waste recycling requirement (tonnes)
2020/21	417,273
2025/26	439,591
2030/31	462,532

3.10 The total recycling requirement for the three key years of 2020/21, 2025/26 and 2030/31 is 50%, 52% and 54%, respectively. The operational capacity for managing the recycling of C&I waste is estimated to be about 397,159 tonnes. Using this, Table 15 presents the capacity shortfall that would arise at the key years. Of course, this is subject to all of the current capacity remaining available and none of the operational sites being able to accommodate more waste. Table D of Appendix 1 shows four sites that have planning permission for the recycling of commercial and industrial wastes but are not, as of yet, operational. These offer a combined permitted capacity of 90,500 tonnes; sufficient to 'take up' the shortfalls shown in Table 15.

Table 15: C&I (Commercial & Industrial) waste recycling capacity shortfall in Leicestershire at key years

Key years	C&I waste recycling capacity shortfall (tonnes)
2020/21	20,114
2025/26	42,432
2030/31	65,373

Recovery

3.11 The provision of a recovery target for C&I is complicated by the great variety of business and industry that contributes to this waste stream and thus the inherent heterogeneous nature of it. The Commercial & Industrial Waste Survey 2009 Final Report, May 2011 reported that 7% of C&I waste was being recovered in England in 2009, and 6.9% within the East Midlands. So, for a start it can be assumed that at least 7% of Leicestershire's C&I waste can be recovered. However, the target for C&I recovery should be greater than a continuation of the existing situation. A target of 21% was utilised for the recovery of LACW and this was and remains an appropriate target for this waste stream. As explained above in paragraph 3.9 52% of the C&I waste stream is analogous to LACW. Therefore, as with the recycling target for C&I the LACW target will be applied to that fraction of C&I waste that is akin to LACW. To the remainder a continuation of the current rate will be applied. So, to the 52% of C&I that is akin to LACW a final recovery rate of 21% is applied, and to the remaining 48% a 7% recovery rate. Similarly to the recycling of C&I waste the recovery target of 21% will be phased so that it is achieved by 2030/31. Application of these targets to the two elements of C&I waste results in a total recovery requirement for C&I waste for the three key years of 2020/21, 2025/26 and 2030/31 of approximately 10%, 12% and 14%, respectively.

Table 16: C&I (Commercial & Industrial) waste recovery requirement in Leicestershire at key years

Key years	C&I waste recovery requirement (tonnes)
2020/21	84,456
2025/26	102,976
2030/31	121,953

3.12 As explained previously the recovery of C&I waste is dealt with alongside LACW, thus, the first stage is to add the two together to give a total recovery requirement. Table 17 below sets this out.

Table 17: C&I (Commercial & Industrial) waste and LACW recovery requirement in Leicestershire at key years

Key years	C&I waste recovery requirement (tonnes)	LACW recovery requirement (tonnes)	Total LACW and C&I recovery requirement (tonnes)
2020/21	84,456	75,840	160,295
2025/26	102,976	80,473	183,449
2030/31	121,953	85,495	207,448

Current operational capacity for the recovery of LACW and C&I waste streams is set out in Tables A and B of Appendix 1; this shows that there are three facilities currently operational in Leicestershire – two anaerobic digesters and one mechanical and biological treatment (MBT) facility. The facilities at Wanlip and Shawell are capable of operating at around 50,000tpa each so the assumption is that they can provide some 100,000tpa of capacity. The Wanlip facility manages the biodegradable fraction from Leicester City's LACW; between 2009 and 2012 this fraction was on average some 29,500 tonnes per annum (31168.93; 32334.28; 27462.79; and 26823.086 tonnes). Nevertheless this is capacity within Leicestershire which could be utilised to treat its LACW and C&I wastes. Thus, the total operational capacity in Leicestershire for recovering non inert, non-hazardous waste is some 125,500tpa. Table 18 shows the effect of this capacity on the recovery requirement.

Table 18: C&I (Commercial & Industrial) waste and LACW recovery shortfall in Leicestershire at key years

Key years	C&I waste and LACW recovery requirement (tonnes)	Current C&I waste and LACW capacity (tonnes)	C&I waste and LACW recovery shortfall (tonnes)
2020/21	160,295	125,500	34,795
2025/26	183,449	125,500	57,949
2030/31	207,448	125,500	81,947

3.13 Table 18 above shows that there is insufficient recovery capacity operational within the County to meet the recovery targets for the C&I waste and LACW waste streams by 2030/31. However, Table D of Appendix 1 shows two recovery sites that have planning permission but are not, as of yet, operational. These

offer a combined permitted capacity of 335,000 tonnes; sufficient to 'take up' the shortfall shown above. It should be noted at this juncture that the largest of these sites, Newhurst Quarry, also appears in Table C of Appendix 1 as a 'dormant' landfill and recycling operation. This planning permission has been implemented but no further works have taken place. The recovery planning permission supersedes that for landfill/recycling.

Residual

3.14 Once the fractions of waste to be recycled and recovered are calculated the remainder will need to be disposed of; in the case of Leicestershire this is almost solely by landfill. The table immediately below shows the estimated total C&I waste and LACW waste that will require disposing of by 2030/31. Tables F and G of Appendix 1 show the tonnes of household, industrial and commercial (non-inert) wastes that were categorised as arising in Leicestershire and were disposed of to landfill in 2011 and 2012, and the facility where the waste was disposed. These figures are only half of that estimated to have arisen and required disposing of. However, much waste remains unclassified in the EA's Waste Data Interrogator and there's no justifiable reason to assume a lower level of residual waste creation.

Table 19: C&I (Commercial & Industrial) waste and LACW residual requirement in Leicestershire at key years

Key years	C&I waste residual requirement (tonnes)	LACW residual requirement (tonnes)	Total residual requirement (tonnes)
2020/21	332,817	75,840	408,656
2025/26	301,501	80,473	381,974
2030/31	269,526	85,495	355,021

3.15 As indicated above, in Leicestershire, the main means of disposal is landfill which at present is undertaken by the facilities at New Albion and Shawell (Table E of Appendix 1). Based upon current planning permissions the only facility remaining operational at the first key year of 2020/21 will be that at Shawell. Using the EA returns data since 2006 an input of 268,505 tonnes per annum has been achieved and is used as the current operational capacity for non inert, non hazardous residual waste. The shortfalls that lead from this are shown in Table 20 below.

Table 20: C&I (Commercial & Industrial) waste and LACW residual shortfall in Leicestershire at key years

Key years	C&I waste and LACW residual requirement (tonnes)	Current C&I waste and LACW capacity (tonnes)	C&I waste and LACW residual shortfall (tonnes)
2020/21	408,656	268,505	140,151
2025/26	381,974	268,505	113,469
2030/31	355,021	268,505	86,515

3.16 As explained in paragraph 3.13 there is 335,000 tonnes of permitted recovery capacity which is sufficient not just to manage the recovery shortfall but also the residual shortfall, which totals some 175,000tpa. The Defra publication '*Forecasting 2020 waste arisings and treatment capacity'* attempts to predict C&I arisings and as part of this explores the possibility of what it calls an upward shock with C&I arisings going back to 2002/03 levels with a 20% increase by 2020. Even with this 20% increase the permitted recovery capacity is still sufficient to manage the residual and recovery capacity shortfall of some 240,000tpa. However, the same is not true for recycling capacity and should such an increase occur they could be a shortfall by 2025/26.

Summary

Table 21: C&I (Commercial and Industrial) waste arisings and recycling, recovery and residual requirements in Leicestershire at key years

Key years	C&I arisings (tonnes)	C&I recycling requirement (tonnes)	C&I recovery requirement (tonnes)	C&I residual requirement (tonnes)
2020/21	834,545	417,273	84,456	332,817
2025/26	844,068	439,591	102,976	301,501
2030/31	854,011	462,532	121,953	269,526

4.0 Construction & Demolition Waste

Arisings

4.1 Three studies have been undertaken in the last ten years estimating the C&D waste arising in England: the ODPM study (Survey of Arisings and Use of Construction, Demolition and Excavation Waste as Aggregate in England in 2003, October 2004, ODPM); the DCLG study (Survey of Arisings and Use of Alternatives to Primary Aggregates in England, 2005, Construction, Demolition and Excavation Waste-Final Report, February 2007, DCLG); and the WRAP study (Construction, Demolition and Excavation Waste Arisings, Use and Disposal for England 2008, April 2010, WRAP).

4.2 The data from the 2004 ODPM study formed the basis of the figures for the East Midlands Regional Plan. The ODPM study published a figure of 9,879,000 tonnes of C&D waste being produced in the East Midlands. Using this as a starting point the Regional Plan estimated that in 2009/10 a total of 10,802,000 tonnes of C&D waste would be produced in the East Midlands of which 2,485,000 tonnes would be from Leicestershire, Leicester and Rutland. The assumption used to produce the data was that Leicestershire, Leicester and Rutland contributed 23% of the East Midlands' total C&D waste arising; the split done by human population because the 2004 ODPM study did not disaggregate the England total into sub-regions.

4.3 The 2007 DCLG study published a figure of 9,821,356 tonnes of C&D waste produced in the East Midlands in 2005 of which 1,446,614 tonnes of this waste arose in Leicestershire, Leicester and Rutland (15% of the East Midlands' total C&D waste arising). It is worth noting that the regional estimates from the national studies are similar between 2003 and 2005, a difference of only some 58,000 tonnes, so, a degree of confidence can be attributed to the regional total; the difference between the studies is how this is disaggregated to the sub-region of Leicestershire, Leicester and Rutland. The WRAP study produced data for England only.

4.4 To begin to quantify C&D waste production until 2031/31 the first stage is to attribute a figure for the arisings of C&D waste in Leicestershire, Leicester and Rutland in 2013. The WRAP study produced data for England in 2009 reporting that a 7% drop had occurred in total C&D waste arising from that produced in 2005. Assuming this is even across the country and using the more recent East Midlands data from the 2007 study (9,821,356 tonnes) this would relate to a reduction of some 687,470 tonnes of C&D waste arising in the East Midlands,

resulting in a figure of 9,133,861 tonnes of C&D waste produced in 2008. Further reductions, though likely, are not currently quantifiable, so, the figure for 2008 is used as the 2013 arisings for the East Midlands.

4.5 To disaggregate the regional arisings to the Leicestershire, Leicester and Rutland sub-region figures of 15% and 23% have been used previously. Beginning with the latter figure, this was calculated by the East Midlands Regional Assembly using human population. As of 2010 the Office of National Statistics published a figure of 4,501,000 as the population of the East Midlands and 1,002,000 for the population of Leicestershire, Leicester and Rutland (22% of the East Midlands' total). The former figure (15%) was calculated from waste data collected as part of the 2007 DCLG study rather than via a proxy figure such as human population.

4.6 The choices available are to use 15% (as per the 2007 DCLG study) or 22% (human population) or an intermediary figure of 18%. 15% seems the most appropriate starting point because it has been arrived at through an empirical study of waste arisings. Thus, the 22% is discounted at the outset but the options of disaggregating the East Midlands' total by 15% and 18% are considered in Table H of Appendix 1 (the 18% figure to show the implications of assigning a greater proportion to Leicestershire). For this stage the WRAP study data have been used to split total arisings into management types, so 52% is recycled and 13% deposited at exempt sites (the acceptability of these figures is considered later on). The key check to these data is the Environment Agency's Waste Data Interrogator on inputs of inert waste in to licensed landfills.

4.7 As can be seen from Table H of Appendix 1 if the lower figure of 15% is utilised (with a 32% reduction to remove the Leicester and Rutland elements; assuming they contribute the same proportion of C&D waste as they do C&I) then the calculations are that in 2013 326,067 tonnes of inert waste from Leicestershire went into licensed landfills whereas utilising 18% the figure is 391,295 tonnes. The Environment Agency (EA) data from 2009 and 2010 show that around 400,000 tonnes per annum of inert waste was deposited into landfills in Leicestershire (Table M of Appendix 1). This increased markedly in 2011 to just over 500,000 tonnes – principally as a result of Slip Inn and Huncote Quarries attracting more waste than in previous years and then rising again to 686,000 tonnes in 2012 as Huncote and Lockington Quarries attracted more waste.

4.8 Further analysis of the EA data for 2009-2012 shows that of all the inert waste which went into landfills in England the following was assigned as having arisen in Leicestershire: 2009 – 358,348.17 tonnes; 2010 – 342,504.097 tonnes; 2011 – 451,786.514 tonnes; and 2012 – 704,689.507 tonnes. Calculating the average results in a figure of 464,332.072 tonnes. The issues document was published prior to the availability of the 2012 data and the average between 2009 and 2011

compared well with the estimate when it was assumed that Leicestershire, Leicester and Rutland contribute 18% of the East Midlands total. This fits less well with the current 2012 data which increases the average. However, 2012 seems to be an abnormally high year and the assumption that Leicestershire, Leicester and Rutland contribute 18% of the East Midlands total seems reasonable; eliciting a figure of 1,644,035 tonnes which when 32% is removed for Leicester and Rutland results in an arising figure of 1,117,985 tonnes of inert waste for Leicestershire in 2013.

Growth Predictions

4.9 To project the arisings to 2030/31 the choices are limited. The Regional Plan predicted an increase in C&D arisings of 2% a year until 2006, followed by 1% growth from 2007 to 2015 and from 2016 onward no growth. With no better indication available of what this waste stream will do it will be assumed that there will be no growth in this waste stream. Therefore, the figure of 1,117,985 tonnes will be used throughout. Consideration is given later in this document if a 20% upward shock occurred by 2020.

4.10 In general terms, the arisings data can be split into three main categories: the production of recycled aggregates; waste entering licensed landfills; and that waste used on exempt sites. Therefore, the arisings for Leicestershire shall be split into the same groupings.

Production of recycled aggregates

4.11 Previously, the assumption used was to plan for a minimum recycling requirement of approximately 49%. The latest study by WRAP indicates that in 2008 the production of recycled aggregate made up 52% of the total C&D arisings (the Councils' 2008 Waste Needs Assessment (LCC, 2008b) assumed 49% and the 2007 DCLG study 49%). So, using the arisings figure of 1,117,985 tonnes for Leicestershire, 581,352 tonnes of C&D waste was recycled in 2013. Previously, the greatest problem with assessing current and required recycling capacity was the inability to ascribe recycling capacity into on-site and off-site. The Waste Planning Authority only deals with the off-site element (i.e. recycling operations on designated waste sites).

4.12 The 2008 report from the National Federation of Demolition Contractors (as quoted in the 2010 WRAP Study) published data that indicated that 16.93 Mt of hardcore produced was processed or used on-site in England and Wales, from a total of 21.62 Mt (around 78%). The slight complication is that this includes Wales whereas the three main studies previously noted (ODPM, DCLG and WRAP) all excluded Wales. It is only an earlier study, 'The 2001 Survey of Arisings and

Use of Secondary Materials as Aggregates in England and Wales' (ODPM, 2002) which produced data for both countries. This study calculated that Wales made up 5.3% of the total C&D waste produced in England and Wales. So, assuming that this has remained similar, removing 5.3% from the 21.62 Mt elicits a figure of 20.47 Mt of hardcore produced in England by members of the National Federation of Demolition Contractors (21.62 Mt - 1.15 Mt).

4.13 The WRAP study calculated that England produced 43.52 Mt of recycled aggregate. There is no direct evidence that 78% of all of the 43.52 Mt of recycled aggregate is processed on-site, only that around 78% of 20.47 Mt of it is. Not all C&D processors will be a member of the National Federation of Demolition Contractors and the data only includes that waste generated during demolition. It can only be surmised that 15.97 Mt (78% of 20.47 Mt) of England's total is processed and used on-site. Therefore, 4.5 Mt is taken off-site for processing. Addition of this 4.5 Mt to the 23.05 Mt of recycled aggregate not produced by members of the National Federation of Demolition Contractors (43.52 Mt – 20.47 Mt) results in 27.55 Mt of recycled aggregate produced in England at off-site operations (i.e. at locations which are not the source of the waste).

4.14 Therefore, it is assumed that 63% of the total production of recycled aggregate in England is handled at off-site locations. Assuming that this is a similar situation across England, then of the 52% of C&D waste which is recycled 366,252 tonnes of it is being processed at off-site locations within Leicestershire. The County Council's own figures indicate an operational recycling capacity for handling approximately 390,000 tonnes per annum in C&D recycling (as tabulated in Table I of Appendix 1); a 24,000 tonnes difference between that estimated by the Councils using individual site data and that, in effect, estimated using the 2005 arisings data to produce an estimate for 2013, further affirming the robustness of the methodology by which estimates have been produced. The Council has also calculated that there is around 8,500 tonnes of transfer capacity for C&D waste within the County. On this basis there is sufficient recycling capacity to allow continuation of current levels. However, if arisings increased 20% by 2020 the need for off-site recycling would go up to 439,502 tonnes. In this instance a need for some 35,000 tonnes of further capacity could be required. Table J of Appendix 1 shows those sites permitted for C&D recycling but not yet operational; which should they become operational would be sufficient to address any shortfall.

Exempt sites

4.15 A proportion of C&D waste is deposited at exempt sites (i.e. sites with registered exemptions from the Environment Agency). The Waste Needs Assessment dated June 2008, used to provide the data for the adopted Waste Core Strategy, utilised data from the RWS (Regional Waste Strategy); this data was that 11% of C&D waste arising in Leicestershire and Leicester was utilised on exempt sites. The 2007 DCLG study calculated that 13% of the C&D waste for Leicestershire, Leicester and Rutland went to exempt sites, similarly the 2010 WRAP study published exempt sites as taking 13% of England's total. Given that the more recent data both calculate 13% as the figure it seems a reasonable approach to use this figure. Therefore, 13% of the total arisings 1,117,944 tonnes means that 145,338 tonnes was used on exempt sites and this is removed from the requirement to provide capacity for the handling of residual waste (i.e. that waste which has not been recycled).

Landfill

4.16 Once recycling (52%) and exempt sites (13%) have been removed from the arisings, the remainder is deposited into landfills to enable the reclamation of these sites. The estimate is that this is around 400,000tpa (391,295tpa). Table N of Appendix 1 shows the County Council's own assessment of inert landfill capacity. The predicted inputs have been calculated through the use of averages but its primary usefulness is to provide an indication of the lifespan of each quarry to show when, currently, permitted capacity will decline. Averages were used because of the marked variability in the inputs of inert waste in to landfills, for example, Huncote Quarry varied from 204,990 tonnes in one year to 86,932 tonnes in another year. Using the estimate of 400,000tpa and the average inputs contained in the table, the following shortfalls will occur at the key years, assuming that provision of recycling capacity remains constant.

Table 22: C&D (Construction & Demolition) waste landfill capacity shortfall in Leicestershire at key years

Key years	C&D waste landfill capacity shortfall (tonnes)
2020/21	160,000
2025/26	160,000
2030/31	310,000

Further assumptions made are that the existing operational landfills do not gain permission for an extension of time to their current operations. Table L of Appendix 1 shows that a further inert landfill site has been permitted in Leicestershire which once implemented and operational could reduce the 2020/21 capacity shortfall to 35,000 tonnes. This shortfall is of such a scale that it could be accommodated in existing landfill operations (as shown by the 2011 and 2012 inputs) or through a number of small-scale infilling operations.

4.17 As with C&I wastes the effects of a 20% upward shock to arisings has been tested. Such an increase in arisings, with the proportions of how the waste would be managed remaining the same, would result in some 470,000 tonnes of inert waste requiring landfilling. The increase in arisings would also have the effect of increasing the shortfall of inert landfill capacity by some 70,000 tonnes at 2020/21 to a total shortfall of 105,000 tonnes of capacity (assuming the permitted inert landfill becomes operational).

Summary

Table 23: C&D (Construction and Demolition) waste arisings and recycling, exempt and landfill requirements in Leicestershire at key years

Key years	C&D arisings (tonnes)	C&D recycling requirement (tonnes)	C&D exempt requirement (tonnes)	C&D landfill requirement (tonnes)
2020/21	1,117,985	581,352	145,338	391,295
2025/26	1,117,985	581,352	145,338	391,295
2030/31	1,117,985	581,352	145,338	391,295

5.0 Hazardous and Radioactive Wastes

Hazardous Waste Arisings

5.1 In the adopted Waste Core Strategy the Councils calculated the C&I waste arising in the City and County and included hazardous waste within these figures (as per the Regional Plan). There was always the intention for the two planning authorities to provide sufficient capacity to manage this element. However, given the frequent need for specialist facilities to handle such waste it is appropriate to address this waste stream independently of C&I wastes.

5.2 Hazardous waste arisings data on a local level, as with many waste streams, is scant. The County Council produced a background document, the Baseline Environmental Review – Waste in 2006 (LCC, 2006) which firstly, presented data from 1998/99 and, latterly from 2003/04. The 2003/04 estimates presented in Table 3.2 of that document were that hazardous waste was 2.7% of the total C&I (including hazardous waste) arising in Leicestershire and Leicester (28,711 tonnes of 1,069,187 tonnes). No newer local data exists, but for ease a figure of 3% is used. The estimate for C&I arisings in 2012/13 is 820,154 tonnes - 3% of this is 24,605 tonnes which is used as the estimate for hazardous waste arisings for Leicestershire in 2012/13. It is worth noting that the C&I estimates in this document have not excluded hazardous waste arisings in their assumptions to ensure that a robust evidence base is produced given the inherent difficulties in estimating waste arisings.

Hazardous Waste Growth Predictions

5.3 To estimate the potential hazardous waste that may arise in Leicestershire a rate of change needs to be applied to the arisings figure. The Defra publication on The Economics of Waste and Waste Policy (June 2011) provided the most recent attempt to apply a rate of change to C&I wastes. Hazardous waste is more akin to industrial waste and this rate would be the more relevant of the two, so, an increase of 0.57% per annum should be applied (Government recognises the main sectors of industry that creates this waste in its Waste Management Plan for England, December 2013).

Table 24: Hazardous waste predicted arisings in Leicestershire

Year	Hazardous waste arisings (tonnes)
2012/13	24,605
2013/14	24,745
2014/15	24,886
2015/16	25,028
2016/17	25,171
2017/18	25,314
2018/19	25,459
2019/20	25,604
2020/21	25,750
2021/22	25,896
2022/23	26,044
2023/24	26,192
2024/25	26,342
2025/26	26,492
2026/27	26,643
2027/28	26,795
2028/29	26,948
2029/30	27,101
2030/31	27,256

Hazardous Waste Management

5.4 No targets for the management of this waste stream, in terms of recycling or recovery targets have been set by the Government; the Strategy for Hazardous Waste Management in England (Defra, 2010) states that there is a need to steer waste producers and waste managers to treatment (rather than landfill) and sets out the types of treatment facilities the country is deficient in. With this in mind the County Council is not seeking to set waste management targets for hazardous waste but rather to provide further capacity to allow the county to be "self-sufficient".

5.5 Table O of Appendix 1 presents the operational capacities of the sites within the County which manage hazardous waste (by recycling, recovering or disposing of this waste rather than only transferring the waste). This table shows a total capacity to manage 22,545 tonnes per annum of hazardous waste, of which 11,837 tonnes is disposal capacity at Shawell Quarry. Plus, there is 6,445 tonnes of transfer capacity. Using the 22,545 tonnes of capacity and the predicted arisings Table 25 below shows the shortfall at the key years.

Table 25: Hazardous waste capacity shortfall in Leicestershire at key years

Key years	Hazardous waste capacity shortfall (tonnes)
2020/21	3,205
2025/26	3,947
2030/31	4,711

5.6 As noted in paragraph 5.3, hazardous waste is akin to C&I waste. Therefore, as with C&I waste it has been calculated what the effects of a 20% increase in the arisings by 2020 would be. If hazardous waste increased by 20%, and current capacity remained unchanged then by 2030/31 the shortfall would increase to 10,162 tpa. Table 26 shows the balance of hazardous waste movements in and out of the County with the balance, in most years, significantly towards movements in; rather confirming the County as a net exporter of hazardous waste.

Table 26: Hazardous waste movements in and out of Leicestershire from the Waste Data Interrogator

Year	Hazardous waste imported in to Leicestershire (tonnes)	Hazardous waste exported from Leicestershire (tonnes)
2009	5,152	16,067
2010	17,996	18,395
2011	8,471	23,329
2012	8,775	19,573

Low Level Non Nuclear Radioactive Waste Arisings

5.7 In the adopted Waste Core Strategy low level radioactive waste was referred to solely in paragraph 4.57. In March 2007 Defra, DTI (Department of Trade and Industry), and the Devolved Administrations published the *Policy for the Long Term Management of Solid Low Level Radioactive Waste in the United Kingdom*. This policy statement acknowledged that a UK-wide strategy was needed for solid radioactive waste arising from the non-nuclear industry. This strategy was split into two parts of which the element dealing with small users producing relatively low volume arisings of wastes containing mainly anthropogenic radionuclides is relevant to Leicestershire and Leicester; the *Strategy for the Management of Solid Low Level Radioactive Waste from the Non-Nuclear Industry in the United Kingdom: Part 1 – Anthropogenic Radionuclides* (DECC, 2012).

5.8 The anthropogenic radionuclides strategy was published 12 March 2012; one of the strategy's key points was that waste planning authorities should consider how to manage radioactive LLW (low level waste) and VLLW (very low level waste) arising in their areas as part of the preparation of their local waste plans. Prior to the publication of the 2012 strategy a study had been undertaken on the amount of solid low level radioactive waste the non-nuclear sector was producing and where it was being managed; the *Data Collection on Solid LLW from the Non-Nuclear Sector: Final Report* (Atkins, 2008). The report assessed that Leicestershire produced 23.15m^3 (155kg) of this waste. The predicted trend is that the amounts will fall. The waste arising in Leicestershire was either incinerated, landfilled or managed by an 'other' method. The report produced a list of incineration and landfill facilities which accept this waste and none are present in Leicestershire. Therefore, currently all of this waste is managed outside of Leicestershire.

Solid Low Level Radioactive Waste from the Nuclear Industry

5.9 The Nuclear Decommissioning Authority produced a document in August 2010, the *UK Strategy for the Management of Solid Low Level Radioactive Waste from the Nuclear Industry*. Leicestershire is not a source of this waste and the emphasis for managing this waste is for it be managed as close to its source as possible. There is no indication from this document that Leicestershire is a suitable location for managing this waste.

6.0 Agricultural Waste

Arisings

6.1 The adopted Waste Core Strategy did not address agricultural waste as a potential waste stream that required further attention. The most recent collected data on agricultural waste in the East Midlands remains the Strategic Waste Management Assessment 2000: East Midlands by the Environment Agency (EA, 2000). This publication identified an arisings figure of 1,018,900 tonnes for Leicestershire, Leicester and Rutland in 1998. Subsequent modelling of this data has been undertaken by the Environment Agency to predict non-natural agricultural arisings. The most recent is for 2008, published by the Office of National Statistics.

6.2 The vast majority of agricultural waste is animal matter and plant waste which is dealt with on site. Only a small percentage of arisings needs to be transferred off site for management at specialist waste facilities. The 2008 data estimated that this equated to 513,984 tonnes in the United Kingdom. Assumptions have had to be made to attribute a proportion of this figure to Leicestershire which results in an estimate of 6,050 tonnes.

6.3 The National Waste Management Plan for England (December 2013) includes agricultural waste within industrial wastes. Therefore, a growth rate of 0.57% per annum is to be applied to this waste stream, in accordance with the figure provided by Defra for the growth of industrial wastes. This growth rate is applied from the latest date for arisings of 2008 through to 2030/31. Without any data to the contrary it has been assumed that this waste is being managed correctly as of 2013/14 and thus the potential need for further facilities is only from this point only.

Table 27: Agricultural waste arisings and shortfall in management capacity until 2030/31

Year	Agricultural waste arisings (tonnes)	Agricultural waste requiring off site management (tonnes)	Shortfall in management capacity (tonnes)
2008/09	1,062,313	6,050	-
2009/10	1,068,368	6,084	-
2010/11	1,074,457	6,119	-
2011/12	1,080,582	6,154	-
2012/13	1,086,741	6,189	-
2013/14	1,092,936	6,224	-
2014/15	1,099,165	6,260	35
2015/16	1,105,431	6,296	71
2016/17	1,111,731	6,331	107
2017/18	1,118,068	6,368	143
2018/19	1,124,441	6,404	179
2019/20	1,130,851	6,440	216
2020/21	1,137,296	6,477	253
2021/22	1,143,779	6,514	290
2022/23	1,150,299	6,551	327
2023/24	1,156,855	6,588	364
2024/25	1,163,449	6,626	402
2025/26	1,170,081	6,664	439
2026/27	1,176,751	6,702	477
2027/28	1,183,458	6,740	516
2028/29	1,190,204	6,778	554
2029/30	1,196,988	6,817	593
2030/31	1,203,811	6,856	631

6.4 Given the small quantity of waste that will need to be managed by 2030/31 it is likely that the shortfall can be accommodated within existing C&I waste management facilities.

7.0 Waste Movements

7.1 The intent of the extant Waste Core Strategy is to provide sufficient capacity to manage the equivalent of the waste which arises within the area the strategy covered, i.e. Leicester and Leicestershire. However, it was acknowledged that because of contractual arrangements, geography or specialist waste facilities waste would still move in and out of other administrative areas, and, the Core Strategy did not seek to prohibit such movements. The importance of movements (both in and out of the County) has been given greater emphasis with the revocation of the Regional Plan and the duty to cooperate.

7.2 Interrogation of the Environment Agency's (EA) Waste Data Interrogator (the best source of waste movements at the facility level) allows the movements, since 2006, of waste in and out of waste management facilities with Environmental Permits to be tracked. These data sets encompass all movements, down to fractions of a tonne, so, to single kilograms in some instances. However, of these movements it is the significant ones that may be useful for the planning of new waste management facilities. To ensure only those significant movements are captured the bar was set at 5,000 tonnes per annum or above of non-hazardous waste and 250 tonnes or above for hazardous waste. The thresholds relate to the quantity of waste that has moved from a single Waste Planning Authority outside of Leicestershire into a single waste management facility in Leicestershire, and waste moved from Leicestershire to a single waste management facility outside of Leicestershire.

7.3 To calculate the level of the thresholds the EA's Waste Data Interrogator from 2011 (the most recent data at the time of the production of the issues document) was used to calculate the mean size of waste sites within Leicestershire which managed C&I/Hazardous waste (not disposal). Sites that principally managed C&D and LACW were excluded because these waste types tend not to be moved great distances. Means data are useful but if all the relevant sites are used in the calculation then a few extremely small or large facilities can skew the data. Therefore, those small or very large facilities were removed prior to calculating the mean. The mean size for hazardous waste facilities was 255 tonnes per annum and 4800 for non-hazardous rounded to 250 and 5000 tonnes per annum, respectively, as stated above. Thus, it was concluded that, on average, such a sized site would be viable in Leicestershire if it was required to replace a movement outside Leicestershire which could no longer continue. The methodology was corroborated by addition of the quantity of waste managed in Leicestershire and those significant levels of waste arising in Leicestershire but managed elsewhere; the resulting quantity of waste was greater than the waste ascribed as arising in Leicestershire. So, sufficient waste capacity to manage that arising in Leicestershire was accounted for.

7.4 Table P of Appendix 1 shows those Waste Planning Authorities which exported significant quantities of hazardous waste (over 250 tonnes to a single site) in to Leicestershire between 2009 and 2012. Broadly, the sources relate to locations adjoining Leicestershire, indicating that location is most likely to be a factor for the reason for the movement. However, two sites within Leicestershire (the De-Pack and Augean operated sites) take significant levels of waste from areas further afield, Essex and Reading, for example. This is more likely to reflect their specialist nature and/or their ability to obtain waste contracts from more than a local catchment. Table Q shows the main movements of hazardous waste out of Leicestershire between 2009 and 2012, and reflects the County's status as a net exporter of hazardous waste. In the main, these movements relate to a requirement to utilise a facility the ilk of which does not exist in Leicestershire, such as waste oil treatment centres, but, also seems to have a geographic dimension in that the waste is rarely travelling great distances.

7.5 Table R of Appendix 1 shows the non-hazardous waste movements in and out of Leicestershire between 2009 and 2012, taken from the EA's Waste Data Interrogator. The majority of these movements are non-inert Commercial and Industrial (C&I) waste. It can be seen that are eight authorities from which there has been a regular and significant movement of waste transported into Leicestershire. Table 28 below presents the principal waste facility in Leicestershire to which the majority of the waste from those significant exporters to Leicestershire has gone. Clear from the table is that the landfill sites of New Albion and Shawell Quarry are utilised to a greater degree than any other sites in the County.

Table 28: Regular and significant waste imports into Leicestershire by waste source and principal destination

Waste Planning Authority	Principal Waste Facility in Leicestershire
Birmingham	New Albion Landfill
Buckinghamshire	Shawell Quarry
Derby City	New Albion Landfill
Derbyshire	New Albion Landfill
Leicester City	Wanlip AD
Lincolnshire	Wanlip AD
Northamptonshire	Shawell Quarry
Nottingham City	New Albion Landfill
Nottinghamshire	Shawell Quarry
Staffordshire	New Albion Landfill
Surrey	Lount Composting Site
Warwickshire	Shawell Quarry

7.6 Using the EA's Waste Data Interrogator waste movements the other way, i.e. out of the County, can also be analysed to pick out patterns. Table S of Appendix 1

shows this, and in the main, it is evident that the significant movements of waste were to sites in close proximity to Leicestershire and were most likely due to contractual or geographic reasons rather than due to a lack of facilities. The County Council has contacted all of the English WPAs contained in Tables R and S to ascertain if these movements can, to the best of their knowledge, continue. Similarly, this has been done for those authorities in Tables P and Q. The details of correspondence received on the sites to which significant exports were made is contained in the 'Duty to Cooperate Report'; but, no issues were highlighted that would mean such movements could not continue. The Council's strategy to provide waste management capacity equivalent to Leicestershire's arisings does somewhat negate the issue of these movements because Leicestershire is not reliant upon these sites because there is insufficient in the County for its management. The exception is those hazardous waste facilities which manage wastes in manners in which facilities in Leicestershire cannot. The 2011 data from the hazardous waste data interrogator shows the greatest types of identifiable hazardous waste produced in Leicestershire are C&D waste & asbestos, municipal & similar commercial wastes, and oil & oil/water mixtures. There is sufficient capacity for managing asbestos in Leicestershire but analysis of the hazardous waste facilities accepting significant levels of waste from Leicestershire shows that they are dominated by sites which manage oil and liquid wastes, and waste electrical equipment – corresponding to the major forms of waste production.

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Appendix 1

List of Tables in Appendix 1

Table A: Operational Capacity of Municipal Waste Composting, Recovery, Recycling and Transfer Operations

Site	Operator	Operational Capacity (tonnes per annum)	Source*	Temporary Permission
Composting Operations				
Beech Tree Farm, Sproxton	Land Network	5701.24	EA Returns	No
Cosby Spinneys, Cosby	D H Pepper	2700	2011/0102/01	No
Crowthorne Farm, Scalford	K & S M Sellars	5000	Estimate	No
Glebe Farm, Sibson	Caton Recycling	2831.87	EA Returns	No
Kibworth	SITA	15805.84	EA Returns	No
Lount	SITA	30481.1	EA Returns	Yes, until 01/09/2020 (pp 2014/0040/07)
Manor Farm, Aston Flamville	J & F Powner	18994.22	EA Returns	No
Soars Lodge Farm, Foston	D. Clark	5000	Estimate	No
	TOTAL CAPACITY	**86,514.27**		
RHWS and Transfer Operations				
Barwell RHWS	Leicestershire County Council	8193.75	EA Returns	No
Bottesford RHWS	Leicestershire County Council	1671.75	EA Returns	No
Coalville RHWS	Leicestershire County Council	9356.65	EA Returns	No

Table A continued

Site	Operator	Operational Capacity (tonnes per annum)	Source*	Temporary Permission
Kibworth RHWS	Leicestershire County Council	1835.52	EA Returns	No
Loughborough RHWS	Leicestershire County Council	9997.57	EA Returns	No
Lount RHWS	Leicestershire County Council	4982.07	EA Returns	No
Lutterworth RHWS	Leicestershire County Council	3734.45	EA Returns	No
Market Harborough RHWS	Leicestershire County Council	4629.39	EA Returns	No
Melton Mowbray RHWS	Leicestershire County Council	5792.89	EA Returns	No
Mountsorrel RHWS	Leicestershire County Council	8215.56	EA Returns	No
Oadby RHWS	Leicestershire County Council	8556.57	EA Returns	No
Shepshed RHWS	Leicestershire County Council	5865.69	EA Returns	No
Somerby RHWS	Leicestershire County Council	1290.03	EA Returns	No
Syston High Street	Biffa	96026.7	EA Returns	No
Welham Lane, Great Bowden	FOCSA	9500	2010/0986/03	No
Whetstone RHWS and Transfer	Leicestershire County Council	35382.26	EA Returns	No
TOTAL CAPACITY		**215,030.85**		

Table A continued

Site	Operator	Operational Capacity (tonnes per annum)	Source*	Temporary Permission
Recovery Operations				
Cotesbach MBT (Shawell Quarry)	New Earth Solutions	47208.399	EA Returns	Yes, until 31st December 2044 (pp 2008/0789/03 and 2006/1565/03)
Wanlip AD	Biffa	36547.49	EA Returns	No
TOTAL CAPACITY		**83,755.89**		

* Where the source is stated as EA Returns this represents the maximum tonnes of waste classified as household, industrial & commercial (HIC) the site has handled between 2006 and 2012 as reported in the Environment Agency's Waste Data Interrogator.

Table B: Operational Capacity of C&I (Commercial and Industrial) Waste Composting, Disposal (not landfill), Recovery, Recycling and Transfer Operations

Site	Operator	Operational Capacity (tonnes per annum)	Source*	Temporary Permission
Composting Operations				
County Hall, Glenfield	Leicestershire County Council	12	Internal Information	No
Loughborough University	Imago Services	35	MHW Magazine	No
Twycross Zoo	Twycross Zoo	850	Hotrot Website	No
	TOTAL CAPACITY	**897**		
Disposal Operations				
Stubble Hill Farm	Kings Hill Cremations	182.5	2004/0121/04	No
	TOTAL CAPACITY	**182.5**		
Recovery Operations				
Greens Lodge Farm, Huncote	A C Shropshire	25500	2009/0564/01	No
	TOTAL CAPACITY	**25,500**		
Recycling Operations				
Barrow Street, Loughborough	T R Metals	Unknown		No
Barrows Lane, Glenfield	Glenfield Autospares	250	EA Returns	No
Bishop Meadow Road, Lboro	East Midlands Metals	Unknown		No

Table B continued

Site	Operator	Operational Capacity (tonnes per annum)	Source*	Temporary Permission
Bottleacre Lane, Loughborough	R & Z Autos	451.78	EA Returns	No
Brindley Road, Hinckley	Hinckley Scrap Metals	Unknown		No
Brook Street, Sileby	E W Middletons	176.7	EA Returns	No
Brooks Lane, Whitwick	Toon and daughters	644.614	EA Returns	No
Bruntingthorpe Airfield	C. Walton	2000	2012/0091/03	Yes, until 31st December 2013
Cossington Road, Sileby	Complete Wasters	Unknown		No
East Midlands Airport	EMA	724.998	EA Returns	No
Enderby Road, Whetstone	Wastecycle	18088	EA Returns	No
Granite Close Smith, Enderby	Bakers Waste	15118.49	EA Returns	No
Harrison Close Car Breakers	Mr Roe	6075	EA Returns	No
Harrison Close LSPS	LSPS	2235.03	EA Returns	No
Hill Top Farm, Melton Mowbray	Charles Brown & Son	737	EA Returns	No
Ingleberry Road, Shepshed	A.E. Burgess	23451.36	Estimate from EA Returns (TBD Morris Site)	No
Jacknell Road, Hinckley	Labwaste	269.29	EA Returns	No
Knights Close, Thurmaston	Silverdell	199.318	EA Returns	No

Table B continued

Site	Operator	Operational Capacity (tonnes per annum)	Source*	Temporary Permission
Knossington Road, Somerby	G C Stevens	489.94	EA Returns	No
Lazarus Court, Rothley	Rock Hall	Unknown		No
Lynden Lea, Hinckley	Taylors Skip Hire	13435	EA Returns	No
Main Street, Normanton	Hillcrest	10000	Estimate	No
Marquis Court, Moira	1st Class Hygiene	200	2013/1023/07	No
Pebble Hall Farm, Theddingworth	J M Clarke	None – Access only in Leics, site is in Northants	N/A	No
Seine Lane, Enderby	Enderby Metals	3922.707	EA Returns	No
Seine Lane, Enderby	Dave Lount Cars	126	EA Returns	No
Sketchley Meadows, Hinckley	B & R Metals	Unknown		No
Snibston Drive, Coalville	Biffa	19264.99	EA Returns	No
South Ind Est, Ellistown	Russells Auto Salvage	296	EA Returns	No
South Ind Est, Ellistown	Direct Car Spares	372.55	EA Returns	No
Station Road, Market Bosworth	Flying Spares	42.5	EA Returns	No
Station Yard, Elmesthorpe	Barrie Mills Motor Salvage	124.95	EA Returns	No
The Scotlands, Coalville	Vellam Metals	250	2009/1116/07	No
Thorpe Road, Melton Mowbray	Melton Waste Recyclers	62	2012/01/06	No
Trent Lane, Castle Donington	Veolia	17620.26	EA Returns	No
Walker Road, Bardon	Air Products	Unknown		No

Table B continued

Site	Operator	Operational Capacity (tonnes per annum)	Source*	Temporary Permission
Warren Parks Way, Enderby	Casepak	145,000	Operator	No
Watling Street - Augean	Augean	6944.694	EA Returns	No
Watling Street - Veolia	Veolia	None		No
Watling Street, Red Lion Farm (Smockington)	Williams Recycling	2538.9	EA Returns	No
Weldon Road, Loughborough	J & A Young	82410.25	EA Returns	No
Wolds Farm, Ragdale	Hull & Sons	10000	2007/1043/06	No
Wymeswold Airfield Acorn	Acorn Recycling	9000	2010/2014/02	No
Wymeswold Airfield De-Pack	De-Pack	2034.458	EA Returns	No
	TOTAL CAPACITY	**390,634.072**		
Reuse Operations				
Half Croft, Syston	Intercare	12.98	EA Returns	No
Northfield House Farm	Mr Hopkins	2000	Operator	No
	TOTAL CAPACITY	**2,012.98**		

Table B continued

Site	Operator	Operational Capacity (tonnes per annum)	Source*	Temporary Permission
Transfer Operations				
High Street, Syston	Biffa	96026.7 (also includes LACW)	EA Returns	No
Logix Park, Hinckley	Eurokey	30000	2010/0289/04	No
Pinfold Road, Thurmaston	Cannon Hygiene	866.445	EA Returns	No
TOTAL CAPACITY		**126,893.145**		

* Where the source is stated as EA Returns this represents the maximum tonnes of waste classified as household, industrial & commercial (HIC) the site has handled between 2006 and 2012 as reported in the Environment Agency's Waste Data Interrogator.

Table C: Capacity of 'Dormant' C&I (Commercial and Industrial) Operations

Site	Operator	Operational Capacity (tonnes per annum)	Source*	Temporary Permission
Disposal Operations				
Newhurst Quarry	Biffa	300000	2007/1987/02	Yes, until 31st December 2032 (pp 2007/1987/02)
	TOTAL CAPACITY	**300,000**		
Recycling Operations				
Manor Farm, Aston Flamville	Mrs Powner	2500	2009/0487/01	No
Newhurst Quarry	Biffa	100000	2007/1987/02	Yes, until 31st December 2032 (pp 2007/1987/02)
	TOTAL CAPACITY	**102,500**		

* Where the source is stated as EA Returns this represents the maximum tonnes of waste classified as household, industrial & commercial (HIC) the site has handled between 2006 and 2012 as reported in the Environment Agency's Waste Data Interrogator.

Table D: Capacity of Permitted C&I (Commercial and Industrial) Recovery, Recycling and Transfer Operations

Site	Operator	Capacity (tonnes per annum)	Source	Temporary Permission
Recovery Operations				
Newhurst Quarry	Biffa	300000	2009/2497/02	No
Sutton Lodge Farm	Mr Lovatt	35000	2009/1488/03	No
TOTAL THROUGHPUT		**335,000**		
Recycling Operations				
Coventry Road, Narborough	Glenfield Waste	75000	2007/0985/01	No
Gilmorton Lodge Farm	R S Properties	1000	WNA 2011 Estimate	No
Wanlip Sand & Gravel, Syston	Wanlip Sand & Gravels	500	WNA 2011 Estimate	No
Wymeswold Airfield Acorn	Acorn	14000	2010/2014/02	No
TOTAL THROUGHPUT		**90,500**		
Transfer Operations				
Quartz Close, Enderby	Eurokey	30000	2010/0978/01	No
TOTAL THROUGHPUT		**30,000**		

Table E: Operational Capacity of Non Inert, Non Hazardous Landfill Operations

Site	Operator	Operational Capacity (tonnes per annum)	Source*	Temporary Permission
Landfill Operations				
New Albion	Veolia	259160.36	EA Returns	Yes, until 31st December 2014 (pp 1998/0569/07)
Shawell Quarry	Lafarge-Tarmac	268505.01	EA Returns	Yes until 31st December 2044 (pp 2006/1565/03)
TOTAL THROUGHPUT		**527,665.37**		

* Where the source is stated as EA Returns this represents the maximum tonnes of waste classified as household, industrial & commercial (HIC) the site has handled between 2006 and 2012 as reported in the Environment Agency's Waste Data Interrogator.

Table F: Quantity of Non Inert, Non Hazardous Waste Deposits from Leicestershire into Licensed Landfills in 2011

Site Name	Operator	Waste Managed from Leicestershire (tonnes)
Bubbenhall Landfill Site	Waste Recycling Group (Central) Limited	493.87
Buckden Landfill Site	Anti-Waste Limited	2.78
Colsterworth Landfill Site	Lincwaste Limited	10807.44
Cotesbach Landfill (Shawell Quarry)	Lafarge Aggregates Ltd	100291.5
Dorket Head Landfill	Waste Recycling Group Limited	77.76
Eye North Eastern Landfill	Biffa Waste Services Ltd	1986.04
Godmanchester Landfill Site	SITA UK Limited	1324.88
Leadenham Landfill	Lincwaste Limited	1334.07
Ling Hall	Veolia ES Landfill Limited	18179.52
New Albion Landfill Site	Veolia ES Landfill Limited	27126.64
North Hykeham Landfill Site	Lincwaste Limited	1620.4
Packington Landfill	SITA UK Limited	472.26
Roxby Landfill Site	Biffa Waste Services Ltd	10730.52
Staple Quarry Landfill Site	Waste Recycling Limited	216.8
Thornhaugh Landfill Site	Augean South Limited	2239.104
Weldon Landfill Site	WRG Waste Services Ltd	5761.04
	TOTAL	**182,664.7**

(source EA's waste data interrogator)

Table G: Quantity of Non Inert, Non Hazardous Waste Deposits from Leicestershire into Licensed Landfills in 2012

Site Name	Operator	Waste Managed from Leicestershire (tonnes)
Bubbenhall Landfill Site	Waste RG (Central) Limited	400.42
Colsterworth Landfill Site	Lincwaste Limited	11132.01
Cotesbach Landfill (Shawell Quarry)	Lafarge Aggregates Ltd	79637.15
Dorket Head Landfill	FCC Recycling (UK) Limited	23.58
Eye North Eastern Landfill	Biffa Waste Services Ltd	6508.46
Immingham Landfill Site	Integrated Waste Management Ltd	488.08
Leadenham Landfill	Lincwaste Limited	194.6
Ling Hall Landfill	Veolia ES Landfill Ltd	609.66
New Albion Landfill Site	Veolia ES Landfill Ltd	32287.82
North Hykeham Landfill Site	Lincwaste Limited	975.16
Port Clarence Landfill Site	Augean North Limited	14.802
Roxby Landfill Site	Biffa Waste Services Ltd	2729.74
Sidegate Lane Landfill	SITA UK Limited	9909.12
Staple Quarry Landfill Site	FCC Recycling (UK) Limited	24.54
Thornhaugh Landfill Site	Augean South Limited	563.398
Welby Tip	Saint-Gobain Pipelines plc	3094.7
Weldon Landfill Site	FCC Waste Services (UK)	4695.91
	TOTAL	**153,289.15**

(source EA's waste data interrogator)

Table H: Estimates of C&D (Construction and Demolition) Waste Arisings and Uses for 2012

% Leics, Leic and Rutland Contribute to Regional Total	East Mids Total	Leics, Leic and Rutland Total	Leics Total	Leics Recycling (52% of total)	Leics Exempt Sites (13% of total)	Leics Inert Landfill
15% of East Mids Total	9,133,861	1,370,079	931,654	484,460	121,115	326,079
18% of East Mids Total	9,133,861	1,644,095	1,117,985	581,352	145,338	391,295

(all figures presented in the table are in tonnes)
Leics = Leicestershire
Leic = Leicester City
East Mids = East Midlands

Table I: Operational Capacity of C&D (inert) Waste Recycling and Transfer Operations

Site	Operator	Operational Capacity (tonnes per annum)	Source^	Temporary Permission
Recycling Operations				
Ellistown Concrete	FP McCanns	Unknown		Yes, until 21st February 2042 (pp. 1999/0306/07)
Enderby Road, Whetstone	Wastecycle	39714	EA Returns	No
Gilmorton Lodge Farm	BASH Skips	447.08	EA Returns	No
Glebe Farm, Sibson	Caton Recycling	5132.32	EA Returns	No
Granite Close, Ellingworth	Planters	8829.58	EA Returns	No
Granite Close Smith, Enderby	Mr Smith	27610.4	EA Returns	No
Granite Close West, Enderby	Bakers Waste	26537.84	EA Returns	No
Granite Way, Mountsorrel	NH Skips	53155	EA Returns	No
Groby Quarry	MQP	50000	2010/0250/04	Yes, until 31st December 2038 (pp 1995/1807/02 and 1995/0552/04)
Harrison Close, LSPS	LSPS	567.67	EA Returns	No
Huncote Quarry	Acresford Sand & Gravel	5000	2010/0405/01	Yes, until 31st December 2020 (pp. 2011/0756/01)

Table I continued

Site	Operator	Operational Capacity (tonnes per annum)	Source^	Temporary Permission
Ingleberry Road, Shepshed	A.E. Burgess	19650.09	Estimate from EA Returns (TBD Morris Site)	No
Lockington Quarry	Lafarge	3235.02	EA Returns	Yes, until 23rd November 2025 (pp 2007/1361/07)
Lynden Lea, Hinckley	Taylors Skip Hire	21544.16	EA Returns	No
Mill Top Farm	Lambert	1445	EA Returns	No
Mountsorrel Quarry	Lafarge	50000	Operator	No
Orston Lane, Bottesford	Midland Skip Hire	29597	EA Returns	No
Shawell Quarry	Lafarge	40000	1999/0476/03	Yes, until 31st December 2044 (pp. 1999/0476/03)
Wood Road, Ellistown	J P & P Bailey	10000	2012/0478/04	No
TOTAL THROUGHPUT		**392,464.67**		
Transfer Operations				
Brooks Lane, Whitwick	Tom Toon & Daughters	3485.349	EA Returns	No
Mill Top Farm, Melton Mowbray	Mr and Mrs Lambert	1330	EA Returns	No
Snibston Drive, Coalville	Biffa	2410.17	EA Returns	No
Trent Lane, Castle Donington	Veolia	1344	EA Returns	No
TOTAL THROUGHPUT		**8,569.52**		

^ Where the source is stated as EA Returns this represents the maximum tonnes of waste classified as inert the site has handled between 2006 and 2012 as reported in the Environment Agency's Waste Data Interrogator.

Table J: Capacity of Permitted C&D (inert) Waste Recycling Operations

Site	Operator	Capacity (tonnes per annum)	Source	Temporary Permission
Recycling Operations				
Cliffe Hill Quarry	MQP	Unknown	2012/0305/04	Yes, until 31st December 2032 (pp. 2012/0305/04 and 2007/1059/04)
Granite Close, Enderby	Planters	125000	2013/0644/01	No
Lockington Quarry	Lafarge	40000	2014/0072/07	Yes, until 23rd February 2026 (pp. 2014/0072/07 and 2007/1361/07)
Shawell Quarry	Lafarge	50000	2012/1487/03	Yes, Yes, until 31st December 2044 (pp. 2012/1487/03)
TOTAL THROUGHPUT		**215,000**		

Table K: Operational Capacity of C&D (inert) Landfill Operations

Site	Operator	Operational Capacity (tonnes per annum)	Source^	Temporary Permission
Landfill Operations				
Huncote Quarry	Acresford Sand & Gravel	204990.719	EA Returns	Yes until 31st December 2020 (pp 2010/0405/01)
Husbands Bosworth Quarry	Lafarge-Tarmac	85965	EA Returns	Yes until 31st May 2015 (pp 2001/1637/03)
Lockington Quarry	Lafarge-Tarmac	288548	EA Returns	Yes until 2nd December 2025 (pp 2007/1361/07)
New Albion	Veolia	85514.68	EA Returns	Yes, until 31st December 2014 (pp 1998/0569/07)
Shawell Quarry	Lafarge-Tarmac	114220.979	EA Returns	Yes until 31st December 2044 (pp 2006/1565/03)
Slip Inn Quarry	Cemex	60852.049	EA Returns	Yes until 20th June 2017 (pp 2009/0646/03)
TOTAL THROUGHPUT		**840,091.427**		

^ Where the source is stated as EA Returns this represents the maximum tonnes of waste classified as inert the site has handled between 2006 and 2012 as reported in the Environment Agency's Waste Data Interrogator.

Table L: Capacity of Permitted C&D (inert) Waste Landfill Operations

Site	Operator	Capacity (tonnes per annum)	Source	Temporary Permission
Recycling Operations				
Ellistown Quarry	Mick George	125000	2013/0924/07	Yes, until 21st February 2042 (pp. 2013/0924/07)
TOTAL THROUGHPUT		**125,000**		

Table M: Inert Waste Deposits into Licensed Landfills from Environment Agency's Waste Data Interrogator, 2006-2012

Site	Years						
	2006	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Barrow Hill	15352						
Bradgate	40599.74	65602.53					
Hemington	126740						
Huncote	115793.35	86931.98	128595.03	131968.67	105382.64	146337.11	204990.719
Husbands Bosworth	85965	47987	31600.63				47000
Lockington	57731	93415.44	167837.03	160944	147167	145932	288548
New Albion	49954.49	66392.31	85514.68	44881.18	33692.78	41459.88	32430.6
Shawell Quarry (Cotesbach)	75347.15	84735.39	95183.53	71145.95	92497.56	114220.979	57146.54
Slip Inn	278680.15	125679	41633.57	800	14117	60852.049	55892.18
Total	**846,162.88**	**570,743.65**	**550,364.79**	**409,739.8**	**392,856.98**	**508,802.018**	**686,008.04**

A black cell indicates that the landfill did not accept waste, note that Barrow Hill, Bradgate and Hemington are now shut as licensed landfills.

(all figures in tonnes)

Table N: Predicted Capacity of Operational Inert Landfills

Landfill	Years									
	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2025/26	2030/31
Huncote	120000	120000	76500							
Husbands Bosworth	80000	80000								
Lockington	150000	150000	150000	150000	150000	150000	150000	150000	150000	
New Albion**	55000									
Shawell Quarry (Cotesbach)**	90000	90000	90000	90000	90000	90000	90000	90000	90000	90000
Slip Inn	56000	56000	56000	56000						
Total	**551,000**	**496,000**	**372,500**	**296,000**	**240,000**	**240,000**	**240,000**	**240,000**	**240,000**	**90,000**

Assumptions

**Inputs calculated from average inputs between 2006 and 2011.

Huncote – application 2010/0405/01 approved July 2010 for restoration by 31st December 2020 (void of 371,000m^3 based upon 7,000m^3 multiplied by 53 months). 371,000m^3 multiplied by 1.5 = 556,500 tonnes, with an input rate of 120,000tpa.

Husbands Bosworth - permitted until 31st May 2015.

Lockington – application 2007/1361/07 approved Sep 2008 for extension with 150,000tpa (100,000m^3) of infilling for 15 year period. Infilling permitted until 2nd Dec 2025.

New Albion - permitted until 31st December 2014.

Shawell - permitted until 31st Dec 2044.

Slip Inn – application 2009/0646/03 approved Dec 2009 for infilling until 20th June 2017.

Note

Shepshed brickworks has permission (reference 2000/0883/02) to import 300,000 tonnes of inert waste to enable restoration of the site. The rate of which is dependent upon clay extraction and, therefore, difficult to quantify in the manner set out above.

Table O: Operational Capacity of Hazardous Waste Landfill, Recycling and Transfer Operations

Site	Operator	Operational Capacity (tonnes per annum)	Source#	Temporary Permission
Landfill Operations				
Shawell Quarry	Lafarge-Tarmac	11837.39	EA Returns	Yes until 31st December 2044 (pp 2006/1565/03)
	TOTAL CAPACITY	**11,837.39**		
Recycling Operations				
6 & 7 Wilson Road	Rentokil	5.128	EA Returns	No
A E Thompson & Son	Thompson, A E	0.21	EA Returns	No
Bakers Waste Services Ltd	Bakers Waste Services Ltd	367.29	EA Returns	No
Bakers Waste Services Ltd	Bakers Waste Services Ltd	940	EA Returns	No
Barrie Mills Motor Salvage	Mills, Barrie	45	EA Returns	No
Bruntingthorpe Proving Ground	G J D Services	486	EA Returns	Yes until 31st December 2013 (pp 2012/1194/03)
Dave Lount Cars	Mr D Lount Mr G D Lount & Mrs C Lount	112	EA Returns	No
De-pack Ltd	De-pack Ltd	2034.458	EA Returns	No
Direct Car Spares Ltd	Direct Car Spares Ltd	334.98	EA Returns	No
E W Middletons	Peter & Jane Middleton	160.675	EA Returns	No
Enderby Metals	John & Dean Anthony Rainbow	65.885	EA Returns	No
Flying Spares Ltd	Flying Spares Ltd	150	EA Returns	No

Table O continued

Site	Operator	Operational Capacity (tonnes per annum)	Source[#]	Temporary Permission
G C Stevens & Son	Mark John Stevens & Gordon Charles Stevens	683.12	EA Returns	No
Glenfield Motor Spares Ltd	Glenfield Motor Spares Ltd	3648.895	EA Returns	No
Market Harborough	Edelchemie (UK) Ltd	213.51	EA Returns	No
Mill Top Farm	Mr Harry Lambert & Mrs Jennifer Lambert	8	EA Returns	No
National Refrigerants Ltd Hinckley	National Refrigerants Ltd	98.996	EA Returns	No
R & Z Transport Ltd	R & Z Transport Ltd	558.16	EA Returns	No
Silverdell U K Ltd	Silverdell U K Ltd	199.318	EA Returns	No
The B M Shop	My B M Shop Ltd	78	EA Returns	No
Wastecycle	Wastecycle	517.79	EA Returns	No
TOTAL CAPACITY		**10,707.415**		
Transfer Operations				
Ark Environmental Services	Ark Environmental Services Ltd	26.059	EA Returns	No
Cannon Hygiene, Leicester	Cannon Hygiene Ltd	145.17	EA Returns	No
Coalville Waste Transfer Station	North West Leicestershire District Council	937.612	EA Returns	No
Fisher Scientific U K Limited	Fisher Scientific U K Limited	57.665	EA Returns	No

Table O continued

Site	Operator	Operational Capacity (tonnes per annum)	Source[#]	Temporary Permission
Hinckley Hazardous Waste Transfer Station	Augean Treatment Ltd	4418.307	EA Returns	No
Labwaste	Labwaste	762.925	EA Returns	No
Leicester Site	O C S Group U K Limited	123.089	EA Returns	No
Stowlin Ltd	Stowlin Ltd	10.86	EA Returns	No
TOTAL CAPACITY		**6,444.768**		

[#] Where the source is stated as EA Returns this represents the maximum tonnes of waste classified as hazardous the site has handled between 2006 and 2012 as reported in the Environment Agency's Waste Data Interrogator.

Table P: Significant Hazardous Waste Inputs into Leicestershire Waste Sites from other Waste Planning Authorities (WPA) 2009-2012

Exporting WPA	Receiving Site			Years			
	Site Name	Operator	Permit Type	2009	2010	2011	2012
Derbyshire	De-pack Ltd	De-pack Ltd	A16 : Physical Treatment Facility				315.44
	Hinckley Hazardous Waste Transfer Station	Augean Treatment Ltd	A9 : Haz Waste Transfer Station		278.324		
Essex	Hinckley Hazardous Waste Transfer Station	Augean Treatment Ltd	A9 : Haz Waste Transfer Station	252.15	388.904	382.272	281.513
Kent	Hinckley Hazardous Waste Transfer Station	Augean Treatment Ltd	A9 : Haz Waste Transfer Station				307.974
Leicester	Wastecycle Depot[>]	Wastecycle Ltd	S0820 : Vehicle depollution facility		487	345	517.79
Northamptonshire	Shawell Quarry (Cotesbach)	Lafarge-Tarmac	L02 : Non Haz (SNRHW) LF		263.94		
	Hinckley Hazardous Waste Transfer Station	Augean Treatment Ltd	A9 : Haz Waste Transfer Station		336.952	263.806	
Nottinghamshire	Hinckley Hazardous Waste Transfer Station	Augean Treatment Ltd	A9 : Haz Waste Transfer Station		512.297	635.756	
	Shawell Quarry (Cotesbach)	Lafarge-Tarmac	L02 : Non Haz (SNRHW) LF		9409.2		
Reading	De-pack Ltd	De-pack Ltd	A16 : Physical Treatment Facility			254.1	
Warwickshire	Shawell Quarry (Cotesbach)	Lafarge-Tarmac	L02 : Non Haz (SNRHW) LF	1351.28	322.6	330.26	

[>] *Until 2010 site named as Maxi-waste depot run by Maxi-waste Ltd.*

Table Q: Significant Hazardous Waste Exports out of Leicestershire to Waste Sites within other Waste Planning Authorities 2009-2012

WPA	Site Name	Operator	Permit Type	Years			
				2009	2010	2011	2012
Bristol	Augean Waste Treatment Plant	Augean Treatment Ltd	A21 : Chemical Treatment Facility				596.961
Cheshire West and Chester	Ellesmere Port Weee Facility	Sims Group U K Ltd	S0823 : WEEE treatment facility			1614.309	1282.893
Coventry	CSG Coventry Treatment Plant	Cleansing Service Group Ltd	A17 : Physico-Chemical Treatment Facility	1056.08	1530.742	1581.631	2423.833
Derbyshire	Ilkeston Waste Treatment and Transfer Facility	Castle Waste Services	A17 : Physico-Chemical Treatment Facility			801.326	
	Polymeric Treatments[1]	Polymeric Treatments Ltd	A21 : Chemical Treatment Facility	452.12	615.91		
Dudley	Himley Quarry Landfill Site	Cory Environmental (Central) Ltd	L02 : Non Haz (SNRHW) LF			872.14	
Knowsley	Avanti Treatment And Transfer Centre	Avanti Environmental Group Ltd	A9 : Haz Waste Transfer Station			268.165	
Lancashire	Clydesdale Place Transfer Station	Mulberry Waste Limited	A9 : Haz Waste Transfer Station			701.073	342.867
Leeds	Knostrop Waste Treatment Facility	Waste Recycling Group (Yorkshire) Limited	A21 : Chemical Treatment Facility	1075.68	1151.14	384.736	
Lincolnshire	Canwick Waste Treatment Centre	Alpheus Environmental Limited	Treatment	282.93			285.741
Northampton-shire	E S S Ltd, Wellingborough	Environmental Storage Solutions Ltd	Treatment	283.13			
	East Northants Resource Management Facility	Augean South Limited	A17 : Physico-Chemical Treatment Facility			1441.4	329.38
	East Northants Resource Management Facility	Augean South Limited	Landfill	472.53			
	Intaparts Ltd	Mr Paul Hillier	MRS	431			
	Weee Recycling Facility	Sims Group U K Ltd	S0823 : WEEE treatment facility			1739.892	1819.443
Nottinghamshire	Allsop Metals Ltd	Allsop Metals Ltd	A19a : ELV Facility	714	678.25	800	1000
	Bilsthorpe Oil Treatment Plant	Oakwood Fuels Ltd.	A17 : Physico-Chemical Treatment Facility	480.75	786.605	1099.614	1192.315
Redcar	ICI No 3 Teesport	Impetus Waste Management Ltd	L01 : Hazardous Merchant LF	479.78	1763.84		
Rotherham	Rotherham Waste Oils[2]	Rotherham Waste Oils Ltd	A9 : Haz Waste Transfer Station	1046.5	793.15	1096	1069.4
Rutland	Seaton Station Scrap Metal Recovery	J S William Turiccki & R A Turiccki	A20 : Metal Recycling Site (mixed MRS's)				439.167
Sandwell	Nilwaste Ltd	Nilwaste Ltd	S0823 : WEEE treatment facility			260.713	
	Tipton Waste Oil Transfer Facility	Elimpic Ltd	A15 : Material Recycling Treatment Facility				536.94

[1] incorrectly reported in Table T of issues document as being located in Sheffield.
[2] incorrectly reported in Table T of issues document as being located in Doncaster.

Table Q continued

WPA	Site Name	Operator	Permit Type	Years			
				2009	2010	2011	2012
Sandwell	Wednesbury Waste Management Resource Centre	Biffa Waste Services Ltd	A9 : Haz Waste Transfer Station		282.612	387.491	675.672
	Wednesbury Waste Management Resource Centre	Biffa Waste Services Ltd	A17 : Physico-Chemical Treatment Facility	371	356.34	1342.04	1176.39
Sheffield	Ecclesfield Waste Treatment Facility	Waste Recycling Group (Yorkshire) Limited	A21 : Chemical Treatment Facility	876.41	916.538	482.33	
Staffordshire	Four Ashes Clinical Waste Treatment Plant and Transfer Station[3]	SRCL Ltd	A12 : Clinical Waste Transfer Station		1116	397	
Stoke on Trent	Sneyd Hill Transfer and Treatment Centre	red industries ltd	A9 : Haz Waste Transfer Station			351.367	
Tameside	Sims Group U K, Stalybridge	Sims Group U K Ltd	A16 : Physical Treatment Facility				432.895
Walsall	Empire Treatment Works	Veolia ES (UK) Limited	A17 : Physico-Chemical Treatment Facility	1264.43	834.896	650.837	563.284
Warrington	Daniels Recycling Ltd	Daniels Recycling Ltd	S0823 : WEEE treatment facility		312.616		
Warwickshire	Ufton Farm Landfill Site	Biffa Waste Services Ltd	Landfill	959.02			
West Bromwich	Arrow Environmental Services Ltd.	Arrow Environmental Services Ltd.	A15 : Material Recycling Treatment Facility	400	504.06	553.09	859.835
Wolverhampton	Acumen Oil Treatment Facility	Acumen Waste Services Ltd	A17 : Physico-Chemical Treatment Facility			363.977	
Worcester	Augean Treatment Hazardous Waste Transfer Station Worcester	Augean PLC	A9 : Haz Waste Transfer Station	268.71		431.99	363.107

[3] incorrectly reported in Table T of issues document as being located in Wolverhampton.

Table R: Significant Non Hazardous Waste Inputs into Leicestershire Waste Sites from other Waste Planning Authorities (WPA) 2009-2012

Exporting WPA	Receiving Site			Years			
	Site Name	Operator	Permit Type	2009	2010	2011	2012
Birmingham City	New Albion Landfill Site	Veolia ES Landfill Limited	L04 : Non Hazardous LF		5657.26	9554.1	
Buckinghamshire	Shawell Quarry (Cotesbach)	Lafarge-Tarmac	Landfill	17964.46	13191.94		
Derby City	New Albion Landfill Site	Veolia ES Landfill Limited	L04 : Non Hazardous LF	55701.34	48921.701	28773.769	41604.621
	Castle Donington WTS	Veolia E S (UK) Ltd	A11 : Household, Commercial & Industrial Waste T Stn		7435.17	13002.34	13526.14
Derbyshire	New Albion Landfill Site	Veolia ES Landfill Limited	L04 : Non Hazardous LF	82708.64	63244.1	72357.69	47043.06
	Shawell Quarry (Cotesbach)	Lafarge-Tarmac	Landfill		1028.66	7216.34	34224.62
	Swains Park	Cawarden Co Ltd	SR2010 No9: Use of waste for reclamation etc <50,000 tps			14250	
	Wanlip Sewage Treatment Works	Severn Trent Water Ltd	A23 : Biological Treatment Facility		7336.26	6169.1	5867.5
	Bakers Waste Services Ltd	Bakers Waste Services Ltd	S0807 : HCI Waste TS + treatment + asbestos			14362	
Leicester City	E Taylor Skip Hire & Recycling Ltd	E Taylor Skip Hire & Recycling Ltd	A11 : Household, Commercial & Industrial Waste T Stn			17317.91	18707
	Huncote Quarry	Acresford Sand & Gravel Limited	L05 : Inert LF			22798.311	
	N H Skips Waste Transfer Station	N H Skips Ltd	A11 : Household, Commercial & Industrial Waste T Stn	4966.86	8385.28	23103.638	10117.16
	Sutton Farm Golf Course	Eagle Environmental Services Limited	SR2010 No8: Use of waste in construction <100,000 tps				19806.02
	Wanlip Composting And Anaerobic Digestion Facility	Biffa Waste Services Ltd	A23 : Biological Treatment Facility	31168.93	32334.28	27462.79	26823.086
	Wastecycle Skip Hire	Wastecycle Ltd	A11 : Household, Commercial & Industrial Waste T Stn		15156	40932	56781.86
Lincolnshire	Wanlip Composting And Anaerobic Digestion Facility	Biffa Waste Services Ltd	A23 : Biological Treatment Facility	16582.64	10552.1	8898.66	16014.48
Northamptonshire	Shawell Quarry (Cotesbach)	Lafarge-Tarmac	Landfill		11376.06	18971.05	10721.48
Nottingham City	New Albion Landfill Site	Veolia ES Landfill Limited	L04 : Non Hazardous LF	8480.22	16098.8	25924.14	16620.24
Nottinghamshire	Shawell Quarry (Cotesbach)	Lafarge-Tarmac	Landfill		12359.28		
Scottish WPA	J & A Young Leicester Ltd	J & A Young Leicester Ltd	A15 : Material Recycling Treatment Facility				9293.51
Staffordshire	New Albion Landfill Site	Veolia ES Landfill Limited	L04 : Non Hazardous LF	6308.72	5926.8		7774.94
	Shawell Quarry (Cotesbach)	Lafarge-Tarmac	Landfill	39584.42	60338.64	36887.37	16579.37

Table R continued

Exporting WPA	Receiving Site			Years			
	Site Name	Operator	Permit Type	2009	2010	2011	2012
Surrey	Kibworth Composting Site	Leicestershire County Council	A22 : Composting Facility			8240.88	
	Lount Composting Facility	Sita U K Ltd	A22 : Composting Facility		7448.48	9108.64	
Warwickshire	Caton Recycling	Caton, Andrew	A22 : Composting Facility	10538.78			
	Shawell Quarry (Cotesbach)	Lafarge-Tarmac	Landfill	39584.42	60338.64	36887.37	16579.37

Table S: Significant Non Hazardous Waste Exports out of Leicestershire to Waste Sites within other Waste Planning Authorities (WPA) 2009-2012

WPA	Site Name	Operator	Permit Type	Years			
				2009	2010	2011	2012
Bexley	Crayfords Materials Recycliing Facility**	Viridor Waste Management Ltd	A15 : Material Recycling Treatment Facility			6404.02	17644.5
Birmingham	Minworth S T Works	Severn Trent Water Ltd	Treatment	12883.74	6947.63		9875.03
Coventry	Tom White Waste Stonebrook Way Transfer Station	Tom White Waste Ltd	A11 : Household, Commercial & Industrial Waste T Stn	5254.48	7596.72	6899.95	6886.28
Derby	969 London Road	Veolia Environmental Services (UK) Plc	Transfer	6767.32	12539.31		
Derbyshire	Melbourne Sports Club	U K Land Clean Limited	SR2010 No10: Use of waste for reclamation etc <100,000 tps			14820	29880
Leicester	A E Burgess & Sons Ltd	A E Burgess & Sons Ltd	A20 : Metal Recycling Site (mixed MRS's)				54274
	A R Aggregates Urban Quarry	A R Aggregates Ltd	SR2010 No12: Treatment of waste to produce soil <75,000 tpy				62075
	Leicester Transfer Station	Shanks Waste Management Ltd	A11 : Household, Commercial & Industrial Waste T Stn			19306.85	25199.74
Lincolnshire	Colsterworth Landfill Site	Lincwaste Limited	L04 : Non Hazardous LF	9834.42	19754.78	13228.38	12326.42
Liverpool	S Norton & Co Ltd	S Norton & Co Ltd	A20 : Metal Recycling Site (mixed MRS's)				18543.619
North Lincolnshire	Roxby Landfill Site	Biffa Waste Services Ltd	L04 : Non Hazardous LF		10060.26	10730.52	
Northamptonshire	Blackbridge Farm	Think Environmental Ltd	S0818 : Mechanical biological treatment		6533.24	11340.68	

** incorrectly reported in Table P of issues document as being located in Kent.

Table S continued

WPA	Site Name	Operator	Permit Type	Years			
				2009	2010	2011	2012
Northamptonshire	Collyweston Quarry	Bullimores Sand & Gravel Ltd	L05 : Inert LF			7709	29077
	Low Cross House	Mr Jeffrey Clarke and Mrs Elizabeth Clarke	A22 : Composting Facility	5770	11254	13180	11941
	Sidegate Lane Landfill	SITA UK Limited	L04 : Non Hazardous LF				9909.12
	Weldon Landfill Site	WRG Waste Services Ltd	L02 : Non Haz (SNRHW) LF	8596.21	7980.58	7145.68	5903.27
Nottingham	Sims Metal	Sims Group U K Ltd	A20 : Metal Recycling Site (mixed MRS's)			6697.174	8791.958
	Nottingham	Biffa Waste Services Ltd	A9 : Haz Waste Transfer Station			10293.15	13406.75
Nottinghamshire	Bunny Transfer Station	Johnsons Aggregates Ltd	A11 : Household, Commercial & Industrial Waste T Stn				11071
	The Sawmill	John Brooke (Sawmills) Ltd	A22 : Composting Facility			5163.97	17540.38
Peterborough	Eye North Eastern Landfill	Biffa Waste Services Ltd	L04 : Non Hazardous LF				6509.58
Redcar	Middlesbrough Container Sorting Line^	Ward Recycling Ltd	A15 : Material Recycling Treatment Facility			5025.03	
Stoke on Trent	Strongford S T Works	Severn Trent Water Ltd	A23 : Biological Treatment Facility				8157.36
Walsall	Greenstar Environmental Ltd	Greenstar Environmental Ltd	A11 : Household, Commercial & Industrial Waste T Stn				11182.5
Warwickshire	Griff Clara Industrial Estate	M A Clay Contracting Ltd	A16 : Physical Treatment Facility				6340
	Ling Hall	Veolia ES Landfill Limited	L02 : Non Haz (SNRHW) LF		10659.82	18838.62	
	Palm Recycling Ltd	Palm Recycling Ltd	A15 : Material Recycling Treatment Facility			16590.25	9907.38
Worcestershire	Summerway Landfill	Talbot, D E	L05 : Inert LF		8802		

^ incorrectly reported in Table P of issues document as being located in Middlesborough (sic).

Appendix 2

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