

## **Norfolk Minerals and Waste Development Framework**

Eleventh Annual Monitoring Report  
Waste Data 2014-15

March 2016

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# 1. Introduction

Section 35 of the Planning and Compulsory Purchase Act 2004 (amended by the Localism Act 2011) requires every local planning authority to produce a monitoring report. The MR should contain information on the implementation of the Minerals and Waste Development Scheme (MWDS), the extent to which the policies set out in Local Development Documents are being achieved. The Monitoring Report for 2014-15 has been published in three parts, as follows:

1. Waste Data (this part of the Monitoring Report)
2. Minerals data is reported in the Local Aggregate Assessment and Silica Sand Assessment
3.
  - Review of the Norfolk Minerals and Waste Development Scheme
  - Policy performance and implementation
  - Monitoring and enforcement

Sections 13-16 of the Planning and Compulsory Purchase Act 2004 (amended by the Localism Act 2011) establishes a duty for waste planning authorities to keep planning issues under review. This Waste Data Monitoring Report presents information on the annual production and management of wastes at facilities in Norfolk. This information is then used to assess the delivery of the relevant local plan policies, particularly the waste management targets, waste management capacity requirements, and the estimated waste arisings these policies are based on.

## 2.0 Core Output Indicators: Waste

### 2.1 Waste Categories

The List of Wastes Regulations 2005 defines the way waste types are categorised. These terms are outlined in the table below and have been used throughout this document. However when reporting on new capacities as a result of approved planning permissions, the terminology used in the application is retained and therefore varies between the previous and current categories.

New Waste Categories	New Definitions
Inert	Non-hazardous waste as defined by The List of Wastes Regulations 2005 (excluding construction and demolition waste) which will not decompose. Includes: subsoil, concrete, hard-core, brickwork, stone, glass, concrete, tiles, ceramics.
Construction and Demolition	Non-hazardous construction and demolition waste as defined by the List of Wastes Regulations 2005. Including: bricks, concrete, wood, metal, soil, glass, tiles, ceramics, plastic.
Non-Hazardous	All non-hazardous waste as defined by The List of Wastes Regulations 2005 not included in other sections. Therefore this category excludes inert and construction/ demolition waste. This category includes, for example: municipal (household), commercial and industrial wastes, and scrap metal.
Hazardous	All hazardous waste (except hazardous clinical waste) as defined by The List of Wastes Regulations 2005. For example: asbestos, acids, oils, petroleum products, paint, mercury, solvents, undepolluted end-of-life vehicles.
Clinical	Hazardous and non-hazardous human and animal healthcare wastes as defined by the List of Wastes Regulations 2005.

Annual surveys of waste inputs have been carried out since 1995. The last survey was carried out for the period April 2014 to March 2015. Since 1994, data has been obtained on the quantity of waste recovered, quantity of waste disposed of (within and outside the County) and the remaining airspace capacity of landfill sites. This monitoring report also lists the quantity of waste imported into the County, the quantity of energy recovered from landfill sites and new capacity permitted in 2014/15.

Waste operators with an environmental permit from the Environment Agency are required by law to submit, to the Environment Agency, information relating to the throughput of waste at their site; this information has been requested from the Environment Agency to fill in the gaps left by operators not responding to Norfolk County Council's own survey. This information is not in the precise format that would be ideal for our purposes and so some assumptions based on past survey returns have been necessary; the overall volume of waste is correct but the precise origins or destinations of the waste have had to be estimated in some cases where they have been reported as 'not codeable' or 'east of England'. For sites where no up to date data is available estimates of volumes based on previous responses, and local site knowledge, have been made.

## 2.2 Landfill

### Non-hazardous landfill sites

Non-hazardous waste comprises waste which decomposes and can include materials as diverse as household waste, paper, vegetable matter and food processing waste. Non-hazardous landfill sites also take a quantity of inert waste for restoration and engineering purposes. In the reporting year 107,632 tonnes of inert waste was taken by 4 non-hazardous landfill sites listed below.

Aldeby	FCC Environment (UK) Ltd
Attlebridge	Biffa Waste Services Ltd
Blackborough End	FCC Environment (UK) Ltd
Edgefield	Norfolk Environmental Waste Services Ltd

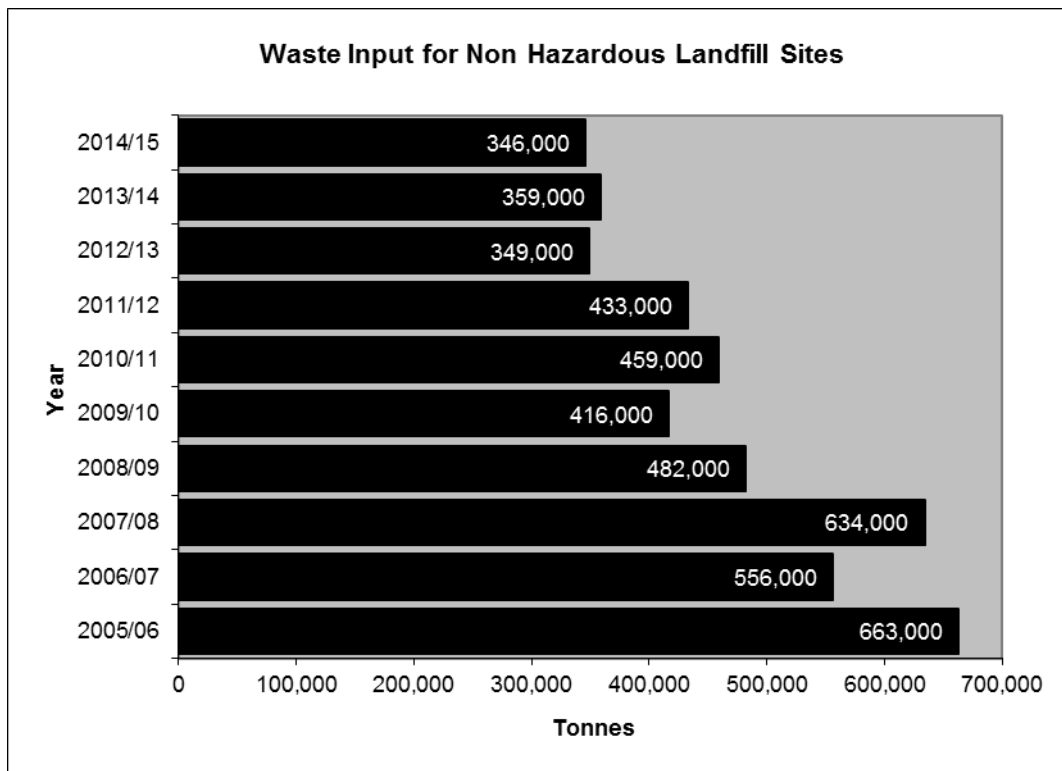
The landfill site at Attlebridge only received inert waste for restoration purposes in 2014/15. The permitted landfill site at Feltwell, operated by FCC Environment (UK) Ltd is currently inactive. Edgefield landfill site ceased taking waste for disposal at the end of 2013/14 and the final restoration has been completed during the course of 2015. Therefore only two landfill sites in Norfolk received non-hazardous waste in 2014/15.

Waste input in 2014/15 into non-hazardous landfill sites was 346,000 tonnes. This is a 4% decrease on the quantity landfilled in 2013/14, and 123,000 tonnes below the 10 year average of 469,000 tonnes. The average input over the last three years has been 351,000 tonnes.

At 31/03/15 the volume of permitted void capacity (remaining landfill space) was estimated to be 5.32 million cubic metres. Whilst a larger void capacity has planning permission, it is unlikely to be operational capacity due to the need to engineer sites to meet the requirements of the Landfill Directive and subsequent re-permitting requirements by the Environment Agency leading to revised site contours.

- Planning Application C/2/2009/2011 contains the most recent publicly available information on the remaining landfill space in Blackborough End landfill site. This planning application, dated May 2009, states (in a report provided by GP Planning Ltd, on behalf of the operator) that "remaining void for the site is currently calculated at 6.5 million cubic metres."
- Planning application C/7/2012/7008 contains the most recent publicly available information on the remaining landfill space at Aldeby. It states that the total available void as of 26/03/2012 was 622,120 cubic metres.
- There are no recent planning applications providing capacity information for Feltwell.
- Some information about remaining capacity for individual sites is gathered as part of the County Council's annual survey. Some landfill sites choose not to provide this information. The information contained in any survey responses provided to the County Council is considered to be confidential and

commercial information. If capacity information is not provided, then the remaining capacity is calculated, using the quantity of waste received at the site.



To calculate how long the remaining non-hazardous landfill voidspace will last, conversion factors have been applied for the density of inert waste (1 tonne occupies 0.67 cubic metres) and non-hazardous waste (1 tonne occupies 1 cubic metre).

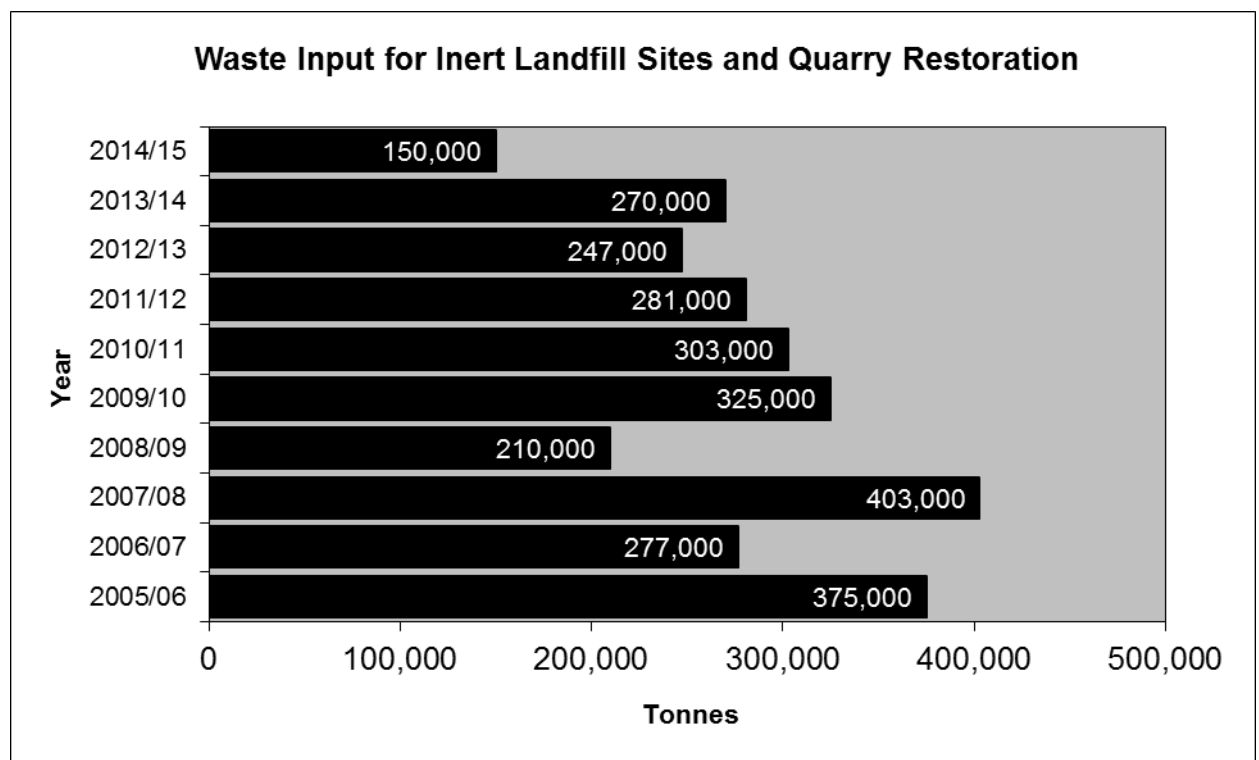
The length of time that the remaining non-hazardous landfill voidspace will last has been calculated using the forecast waste arisings for Municipal, Commercial and Industrial and imported London waste in the Norfolk “Core Strategy and Minerals and Waste Development Management Policies DPD”. Table A.2 of the Core Strategy forecasts the annual quantity of non-hazardous waste disposal to landfill until 2026/27. This table has been updated in Appendix A of this AMR, taking into account the non-hazardous landfill void capacity as at 31/03/2015. **With the current void capacity and the forecast non-hazardous waste disposal quantities to landfill, the existing landfill capacity is calculated to last until 2029/30.**

## Inert landfill sites and quarry restoration using inert waste

Waste input in 2014/15 into inert landfill sites and for quarry restoration was over 150,000 tonnes. This compares with 270,000 tonnes in 2013/14 and 247,000 tonnes in 2012/13. The 150,000 tonnes deposited in 2014/15 consisted of 110,000 tonnes used in quarry restoration and 40,000 tonnes deposited in inert landfill sites. At 31 March 2015 the volume of permitted air-space was estimated to be 1,706,500 cubic metres.

After applying a conversion factor for the density of inert waste (1 tonne occupies 0.67 cubic metres), and assuming that waste inputs remain the same as the average for the last three years, it is calculated that inert landfill and quarry restoration sites will last 11.5 years, until mid 2026.

However, evidence for the Minerals and Waste Core Strategy uses a Government survey forecast of a 40% increase in construction and demolition waste over the plan period (to 2026). Assuming the 40% increase occurs as an incremental year on year increase of 2.5% per annum in inert waste requiring inert landfill/quarry restoration, it is calculated that existing **inert landfill and quarry restoration sites will last 6 years, until 2021**. Inert waste is also used for engineering works, including the capping of non-inert landfill sites and the restoration of mineral workings. It is important to note that the actual quantity of construction and demolition waste arising in the future will be subject to economic conditions.





## 2.3 Imported Waste to landfill

Waste imported to Norfolk's landfill sites and for quarry restoration, from outside the county, in 2014/15 was as follows:

Inert landfill sites and quarry restoration		Non-hazardous landfill sites	
Within region, outside county	Outside region	Within region, outside county	Outside region
6,794 tonnes	0 tonnes	33,200 tonnes	110 tonnes

The quantity of waste imported from outside the county and deposited at inert landfill sites and quarry restoration sites is equivalent to less than 5% of the total deposited at these sites. For non-hazardous landfill sites the equivalent is less than 10%.

The majority of the waste imported to Norfolk's non-hazardous landfill sites originated in Suffolk and was received to the non-hazardous landfill site that is closest to the Suffolk border. Over 20,000 tonnes of this waste was construction and demolition waste used for engineering / capping of the landfill site.

## 2.4 Renewable energy generation

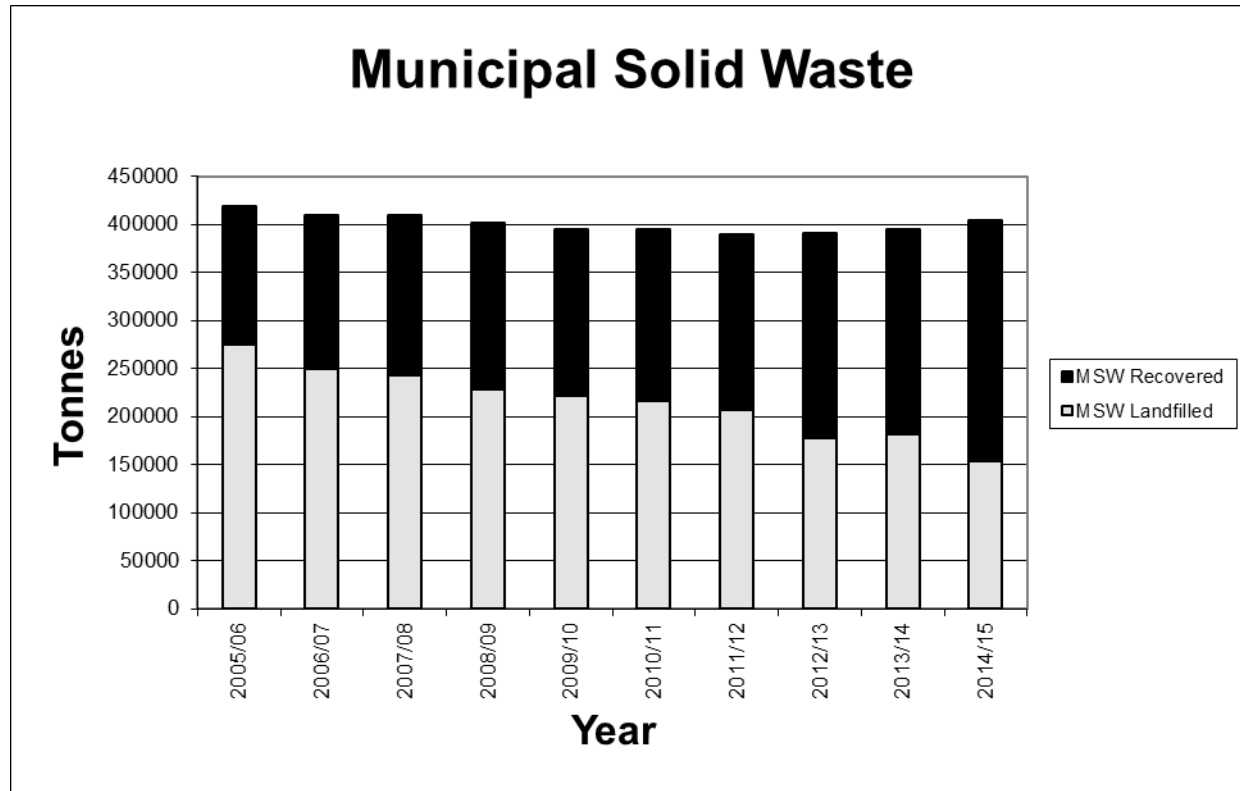
The current installed capacity for energy generation at Norfolk's landfill sites in 2014/15 was the equivalent of 11.44 megawatt hours (MWh) in January 2015. The engine was removed from Snetterton landfill in January 2015 because there is no longer sufficient methane gas being produced from this closed site to support an engine. However, an engine was installed for the closed Docking landfill site in October 2014. The actual megawatt hours of electricity generated depends on the quantity and concentration of methane being produced within the landfill site and is only known for those sites managed by Norfolk County Council.

SITE	Current maximum capacity MWh	Actual MWh generated in 2014/15
Beetley	0.2	986
Blackborough End	3.3	15,962
Costessey	1.15	3,969
Mayton Wood	0.33	2,108
Snetterton	0.14 (engine removed Jan 2015 so current capacity now 0)	342
Docking	0.05 (engine installed Oct 2014)	197
Edgefield	1.21	Unknown
Attlebridge	1.2	Unknown
Feltwell	2.06	Unknown
Aldeby	2.0	Unknown
<b>TOTAL</b>	<b>11.64 at January 2015</b>	<b>23,564</b>

## 2.5 Local Authority Collected Municipal Waste

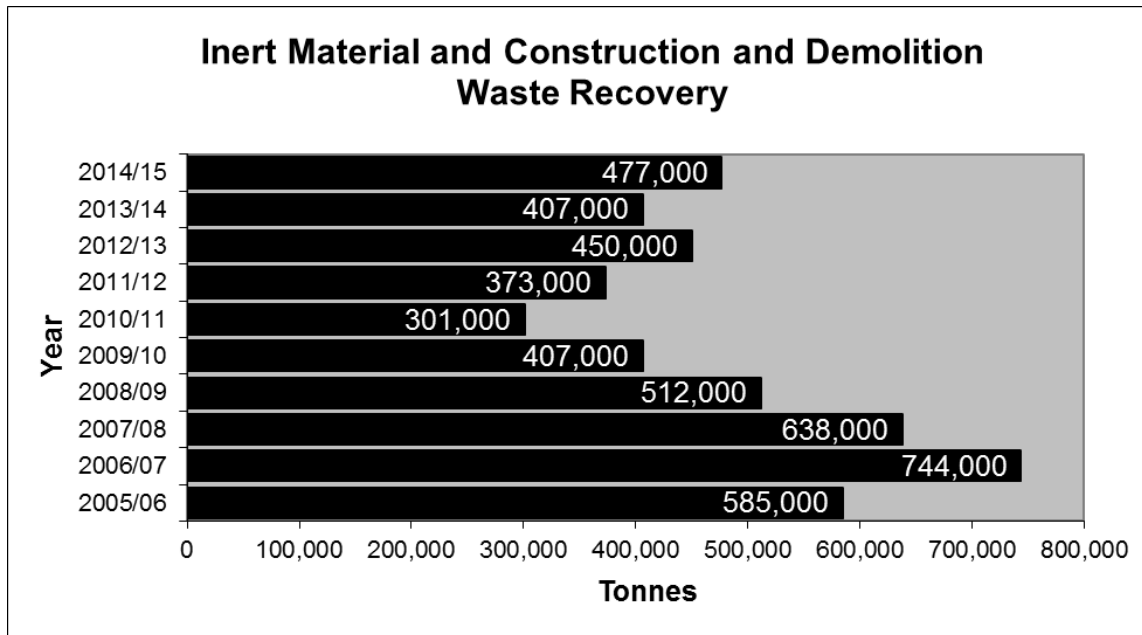
Below is a table outlining the quantity of local authority collected municipal waste (LACMW) arising in Norfolk and how it was managed in 2014/15. The proportion of local authority collected municipal waste sent to landfill came to 37.9%; which is considerably lower than the 45.8% landfilled in 2013/14. Local authority collected municipal waste in Norfolk over the reporting year totalled 404,563 tonnes, a 2% increase compared with the previous year and the highest amount arising since 2007/8. The lowest amount of LACWM arising in the intervening years was 389,380 tonnes in 2011/12.

Management type	Quantity managed	
	Tonnes	Percentage
Recycled	97,111	24
Composted	77,022	19
Reuse	824	0.2
Refuse Derived Fuel	31,359	7.7
Incinerated with energy recovery	44,947	11.1
Landfilled	153,262	37.9
Incinerated without energy recovery	38	<0.1
<b>TOTAL</b>	<b>404,563</b>	<b>100</b>

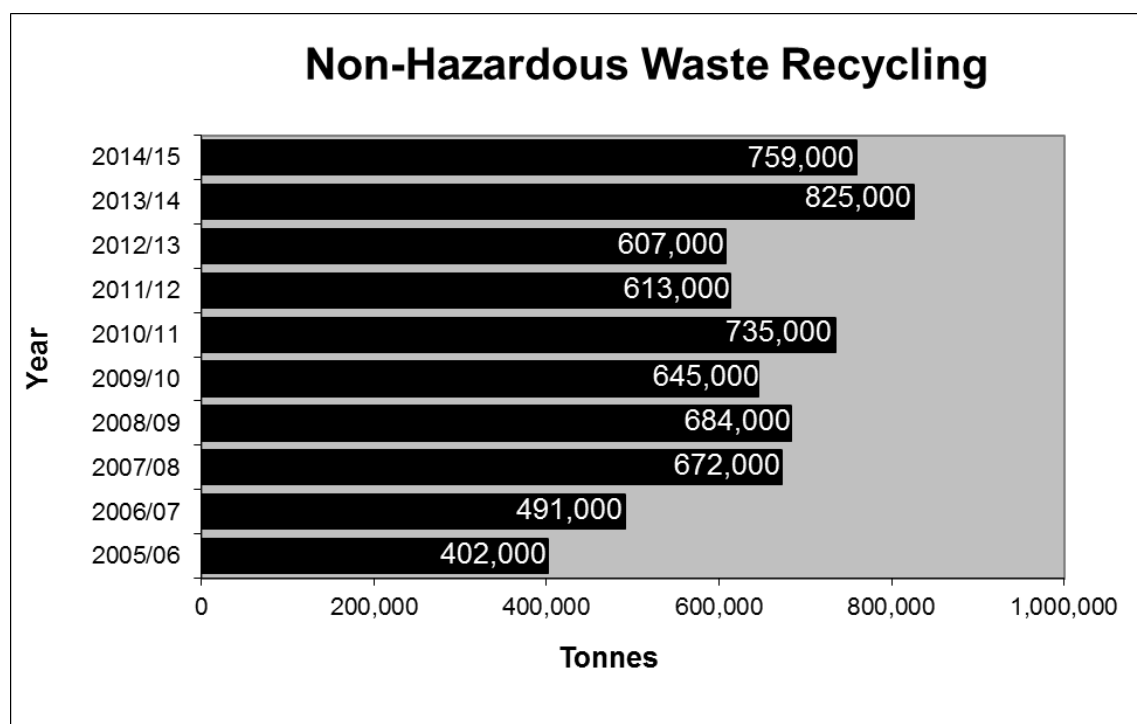


## 2.5 Waste Recovery

It is estimated that in 2014/15 over 477,000 tonnes of the inert and construction & demolition waste, received at transfer stations and recycling centres, was recovered. This includes waste recovered at quarries as well as waste management facilities. The figures from the quarry sites are only included in the last eight years' statistics.



The quantity of non-hazardous waste recycled/composted in 2014/15 was over 759,000 tonnes. This compares with over 825,000 tonnes in 2013/14 and 607,000 tonnes in 2012/13.



The origins of waste received at Norfolk's transfer stations, treatment and recovery facilities in 2014/15 were as follows:

	Waste type (quantity in tonnes)					
	Inert	C&D	Non-hazardous	Hazardous	Clinical	Total
<b>Received from within Norfolk</b>	133,940	319,495	1,570,868	66,043	1247	<b>2,091,593</b>
<b>Received from outside Norfolk, but within the region</b>	6,762	32,001	328,391	13,894	70	<b>381,118</b>
<b>Received from outside the region</b>	3,430	345	14,257	5,876	184	<b>24,092</b>
<b>TOTAL WASTE RECEIVED</b>	<b>144,132</b>	<b>351,841</b>	<b>1,913,516</b>	<b>85,813</b>	<b>1,501</b>	<b>2,496,803</b>

After being sorted and/or treated at Norfolk's transfer stations, treatment and recovery facilities, the destination of waste outputs from these sites in 2014/15 was as follows:

Waste management method	Waste type (quantity in tonnes)					
	Inert	C&D	Non-hazardous	Hazardous	Clinical	Total
Disposal to landfill within Norfolk	1,303	32,381	150,731	0	607	<b>185,022</b>
Exported for disposal to landfill within the region	0	13,883	45,465	515	70	<b>59,933</b>
Disposal to landfill outside the region	0	0	22,555	1,087	0	<b>23,642</b>
<b>TOTAL WASTE TO LANDFILL</b>	<b>1,303</b>	<b>46,264</b>	<b>218,751</b>	<b>1,602</b>	<b>677</b>	<b>268,597</b>
Incineration/power station within Norfolk *	0	0	436,521	0	374	<b>436,895</b>
Exported for incineration within the region	0	232	46,584	35	24	<b>46,875</b>
Incineration outside the region	0	28,735	68,055	689	1	<b>97,480</b>
<b>TOTAL WASTE TO INCINERATION</b>	<b>0</b>	<b>28,967</b>	<b>551,160</b>	<b>724</b>	<b>399</b>	<b>581,250</b>
Recycled or composted in Norfolk	166,593	206,416	479,131	54,672	0	<b>906,812</b>
Exported for recycling or composting within the region	12,682	32,953	98,029	460	0	<b>144,124</b>
Recycling or composting outside the region	18,020	2,933	181,845	2,998	140	<b>205,936</b>
<b>TOTAL RECYCLED OR COMPOSTED</b>	<b>197,295</b>	<b>242,302</b>	<b>759,005</b>	<b>58,130</b>	<b>140</b>	<b>1,256,872</b>

\*The majority of waste recorded in the 'incineration/power station in Norfolk' row of the above table, was received at the EPR renewable energy plant at Thetford which burns poultry litter.

In 2014/15 imported waste represented 16.2% of the total waste received at transfer stations and recovery facilities in Norfolk. There has been a decrease of 65,484 tonnes in the quantity of waste imported to Norfolk facilities in 2014/15 compared to 2013/14. This decrease is primarily in non-hazardous waste from within the East of England (46,000 tonnes) but imports from outside the region have also decreased by 18,000 tonnes which is a 55% decrease. In the same

period the quantity of waste exported for disposal outside of Norfolk increased by 32,000 tonnes.

The following table shows the quantity of waste handled in Norfolk by each type of waste management facility. The table does not include any End-of-Life Vehicle de-pollution sites because the majority of these sites have planning permission granted by the relevant district council instead of the County Council.

Waste may be handled at more than one facility. For example, green waste received at a household waste recycling centre will also be composted at one of the compost facilities.

<b>Facility Type</b>	<b>Compost</b>	<b>HWRC</b>	<b>Incineration/ Power station</b>	<b>Transfer / Treatment of inert waste</b>	<b>Metal Recycling</b>	<b>Transfer / treatment of waste</b>
<b>No. of sites</b>	10	20	6	25	8	63
<b>Input from outside Norfolk but within region (tonnes)</b>	37,156	0	112,363	2,003	23,462	206,134
<b>Input from outside region (tonnes)</b>	26	0	183	152	0	23,731
<b>Input from within Norfolk (tonnes)</b>	153,484	64,847	326,109	179,795	74,947	1,292,408
<b>Recycled or compost (tonnes)</b>	110,745	41,479	1,098	204,184	72,705	826,660
<b>Sent to landfill within Norfolk (tonnes)</b>	277	16,852	19	524	0	167,348
<b>Sent to landfill outside Norfolk (tonnes)</b>	202	0	315	12	0	83,046
<b>Incineration / Power Station within Norfolk * (tonnes)</b>	0	0	436,895	0	0	0
<b>Incineration outside Norfolk (tonnes)</b>	28,734	6,515	0	0	32,765	76,340

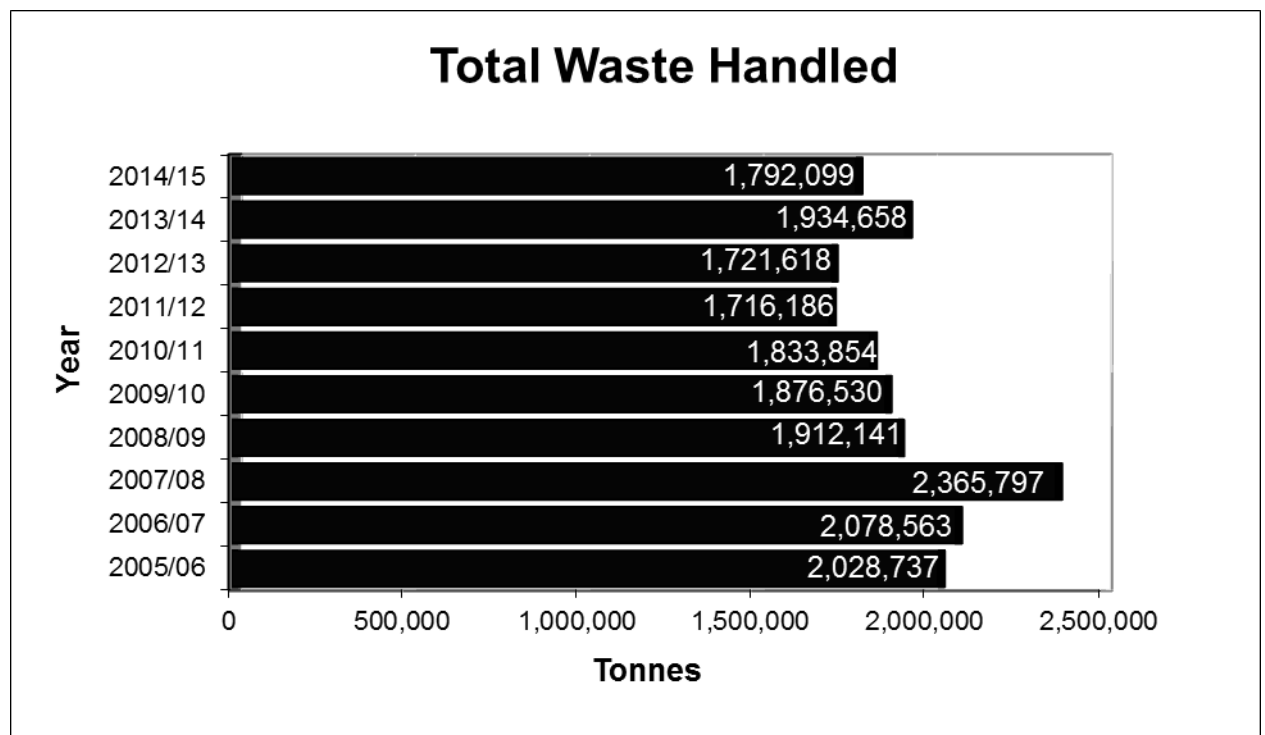
It should be noted that the inputs are unlikely to match the outputs for all facility types. For example, at composting facilities a portion of the weight of waste input is lost through the composting process; other facilities may have recycled previously stockpiled waste.

\*The majority of waste recorded in the incineration/power station row of the above table, was received at the EPR renewable energy plant at Thetford which burns poultry litter. The exact origin of this material is difficult to ascertain as material from within the region and within Norfolk may be mixed before its origin can be accurately identified.

## 2.6 Waste Handled in Norfolk

The total waste handled in 2014/15 was 1,792,099 tonnes. To reduce double counting waste that may be handled at more than one facility, this figure is calculated from the total amount of waste landfilled in Norfolk plus the total amount of waste recycled or segregated for recycling at transfer stations and recycling facilities in Norfolk. The decrease in the total waste handled by waste management facilities in Norfolk, of over 142,000 tonnes from 2013/14 to 2014/15, is due to the significant decrease in the quantity of inert waste being used in quarry restoration.

In addition to the total waste recorded in the graph below, the EPR Thetford renewable energy plant has been operational for over 10 years and burns between 360,000 - 450,000 tonnes of poultry litter per annum.



## 2.7 New Capacity in Norfolk

The table below demonstrates the increased waste management capacity as approved in the period between 1 April 2014 and 31 March 2015. These sites were:

Location	Applicant	Type of facility	Anticipated throughput (tonnes per annum)	Type of waste (waste class)
Pulham Market	A R Kent & Son	Waste Transfer Station	50,000 (25,000 tonne increase)	Inert and Non-Hazardous
West Caister	Caister Kennels	Pet Incinerator	75	Clinical
West Caister	Norfolk County Council	Storage and Sale of Recycled Highway Material	40,000	Inert
East Tuddenham	Pips Skips	Extension to Existing Waste Transfer Station	Increase from 25,000 to 30,000 tpa	Inert and Non-Hazardous
Roughton	About with Friends	Community Compost	50	Garden Waste
Briston	Morrisey Builders	Extension to Existing Waste Transfer Station	2,000	Construction and Demolition Waste
Worstead	Carl Bird Ltd	Storage Bay Within Existing Waste Transfer Station	1,500	Road Sweepings
Edgefield	Buyinfo Ltd	Anaerobic Digestion Plant	30,000	Non-Hazardous

In addition to the above facilities, the following additional sewage treatment capacity received planning permission in 2014/15:

Location	Applicant	Type of facility	Anticipated throughput	Type of waste
Kirby Bedon	Anglian Water Services Ltd	Sludge Cake Reception Facility	21,000 tonnes per annum	Sewage
Stokesby	Anglian Water Services Ltd	Vacuum Pumping Station	17,000,000 litres per annum	Sewage
Neatishead	Anglian Water Services Ltd	Vacuum Pumping Station	18,000,000 litres per annum	Sewage
East Ruston	Anglian Water Services Ltd	Vacuum Pumping Station	169,000,000 litres per annum	Sewage



## 2.8 Assessment of progress against Policy CS4

The Minerals and Waste Core Strategy Policy CS4 states that between 2010 and the end of 2026 “there is a need to provide about 163,000 tonnes of new recycling, composting and source-segregated anaerobic digestion capacity, about 703,000 tonnes of recovery (residual waste) infrastructure and about 2,060,000 tonnes of new inert landfill/quarry restoration voidspace.”

These figures were calculated on the basis of the existing capacity in the financial year 2008/9. This included 684,000 tonnes of non-hazardous waste recycling and composted, plus the composting facility for 20,000 tpa at Bracon Ash permitted in 2008. In the seven years from 2008/9 to 2014/15 the average quantity of non-hazardous waste recycled at Norfolk facilities was 695,400 tonnes, although this has fluctuated and also increased in the last two years. It should be noted that this is likely to double count material that is treated at more than one facility (for example green waste segregated at a transfer station and then composted at a separate facility).

The recycling/composting and recovery (residual waste treatment) capacities required are based on forecast municipal and commercial and industrial waste arisings (detailed in Appendix A of the Core Strategy). Facilities to treat sewage or natural agricultural waste (such as manure and silage) were not included in the calculations for need in policy CS4.

Additional non-hazardous landfill capacity was calculated to not be needed in the plan period. The existing capacity is now calculated to last until 2029/30.

Additional recycling/recovery capacity for C&D waste was not calculated to be needed in the plan period, therefore additional permitted facilities for this waste type are not detailed below.

Since 2009/10 the following additional waste management capacity has been permitted by Norfolk County Council:

### Recycling/composting facilities

Year	Recycling capacity permitted (tonnes)	Composting capacity permitted (tonnes)
2009/10	<b>3,500</b> = 50% of throughput at transfer station in Frans Green	<b>45,000</b> (Marsham)
2010/11	<b>3,000</b> = 50% of new HWRC throughput at Dereham	0
2011/12	<b>13,500</b> = 50% of throughput of transfer station at Sculthorpe = wood recycling, Mattishall = 50% of additional HWRC capacity at Thetford  <b>25,000t</b> <i>Material recycling facility at Attlebridge. This permission was not implemented and therefore is not included in the total.</i>	<b>40,000</b> <i>(TMA Bark supplies, Hockering) This permission was not implemented and therefore is not included in the total.</i>

Year	Recycling capacity permitted (tonnes)	Composting capacity permitted (tonnes)
2012/13	<b>12,500</b> = plastic & card, Shropham = end-of-life vehicles, North Walsham	<b>12,500</b> (expected green waste input to Anglian Water, Kirby Bedon facility)
2013/14	<b>Total 82,000 consisting of:</b> <b>7,500</b> = 50% additional capacity for transfer/treatment Carl Bird Ltd, North Walsham <b>3,750</b> = 50% transfer/treatment Skippy Skip Hire, West Winch <b>12,500</b> = 50% transfer/treatment Monk Plant Hire Hockering <b>6,250</b> = 50% transfer/treatment Monk Plant Hire Dereham <b>2,000</b> = aircraft components, KLM, Norwich <b>50,000</b> = 50% additional capacity at M Gaze and Co Ltd, Thurlton	<b>0</b>
2014/15	<b>15,000</b> = 50% additional capacity for transfer/treatment at Pips Skips, East Tuddenham = 50% additional capacity for AR Kent & Son, Pulham Market	<b>50</b> (community composting, Roughton)  <b>30,000 anaerobic digestion</b> (Buyinfo Ltd, Edgefield)
<b>TOTAL</b>	<b>129,500</b>	<b>87,550</b>

Where a facility is a transfer station, it has been assumed that a minimum of 50% of the throughput will be recycled/composted, however it is recognised that this figure may be higher. Transfer stations are likely to be taking a percentage of construction and demolition waste as well as the household, commercial and industrial waste that policy CS4 plans for.

In addition, planning permission was granted in 2011/12 for an anaerobic digestion facility with an annual throughput of 360,000 tonnes at British Sugar's Wissington site. This facility is permitted to treat pressed sugar beet and vinasses from the production process. This facility has not been included in the additional capacity because the waste treated was previously used as animal feed and did not enter the waste stream. Therefore, it is considered that this capacity is in addition to the requirements in Policy CS4.

There is the potential for part of the additional capacity permitted at M Gaze and Co Ltd in 2013/14 to be for composting, but the additional capacity is for the site as a whole which comprises of waste transfer/treatment, composting, oil recovery and waste water treatment operations.

There is calculated to be an additional 57,550 tpa composting capacity, 30,000 tpa anaerobic digestion capacity and 129,500 tpa recycling capacity for household, commercial and industrial waste which received planning permission in the period 2009/10-2014/15. **Therefore, the additional recycling/composting capacity requirements over the plan period have now been met.**

### **Recovery (residual waste treatment) infrastructure**

No additional recovery (residual waste treatment) infrastructure was permitted in 2009/10 or 2010/11.

A biomass CHP plant fuelled by waste wood with an annual throughput of 20,000 tonnes was permitted in 2011/12. No additional recovery (residual waste treatment) infrastructure has been permitted in 2012/13, 2013/14 or 2014/15.

**Therefore there remains a need for 683,000 tpa additional recovery (residual waste treatment) infrastructure capacity over the plan period in accordance with policy CS4. There is the potential for some of this capacity to be provided by recycling/composting facilities instead of recovery (residual waste treatment) facilities if necessary. Some of this forecast capacity need is for pre-treatment prior to disposal only and the existing transfer stations would be providing part of this service.**

It should also be noted that there is a waste management facility producing Refuse Derived Fuel (RDF), at Costessey, with a permitted throughput of 219,000 tpa in their Environmental Permit. Planning permission (ref. C/7/2012/7015) was granted for RDF production to take place at this existing waste management facility in September 2012. This planning permission did not increase the throughput or types of waste that could be treated at the facility and the RDF is produced from residual waste which would previously have been treated at the facility, but then sent to landfill. Therefore the change in the treatment process at an existing waste management facility is not considered to provide any additional recovery (residual waste treatment) infrastructure.

Existing **inert landfill and quarry restoration** capacity is recorded in section 2.2 as 1,706,500 cubic metres on 31 March 2015. This capacity is calculated to last until between 2021 and 2026. Therefore there is still insufficient capacity for the plan period (until the end of 2026).

## 2.9 Conclusions for waste management

A summary of the main waste data to be drawn from the 2014/15 Survey of Waste Facilities is as follows:

- The total amount of Local Authority Collected Municipal Waste increased slightly in the year 2014/15 compared to 2013/14;
- Waste input into non-hazardous landfill sites in 2014/15 was 346,000 tonnes, a decrease of approximately 4% on the 2013/14 figure and about 5,000 tonnes below the 3 year average of 351,000 tonnes;
- Norfolk's non-hazardous landfill capacity is calculated to last until 2029/30 based on the forecasts of waste arisings in the Minerals and Waste Core Strategy;
- The landbank for inert landfill and quarry restoration sites stands at 11.5 years, assuming waste inputs remain the same as the average for the last three years, or 6 years assuming waste inputs increase by 2.5% per annum;
- The quantity of inert waste recovered in 2014/15 was 447,000 tonnes; which is below the 10 year average of 489,400 tonnes;
- The quantity of non-hazardous waste recycled/composted in 2014/15 (759,000 tonnes) was lower than the quantity recycled in 2013/14, but was approximately 115,700 tonnes higher than the 10 year average of 643,300 tonnes; and
- The overall quantity of waste handled in Norfolk in 2014/15 was 142,559 tonnes less than 2013/14, and 133,919 tonnes less than the 10 year average of approximately 1,926,018 tonnes.
- The Norfolk Waste Site Specific Allocations Plan was adopted on 28 October 2013. The plan covers the period until the end of 2026 and allocates specific sites that are considered suitable in principle and available for development as waste management facilities. The allocated sites would provide for enough waste management capacity to meet the needs within Norfolk for the plan period.

Waste is produced as the result of human activity. As economic activity increases, along with a consequent increase in house building, population and household formation it is to be expected that amounts of waste generated would increase. The figures of total waste handled in Norfolk would seem to reflect this with amounts increasing to a high point in 2007/2008 before falling during subsequent years before an increase in 2013/14. However, the total waste handled in Norfolk reduced again in 2014/15, mainly due to a reduction in inert waste used in quarry restoration in this year. Therefore, the total waste handled will need to be monitored over subsequent years to see if a trend develops or if the previous decreases since 2007/08 are re-established. Waste planning should be trend based as any individual year can contain anomalies due to the methods of data collection and the impacts of individual events which may generate large amounts of waste. A review of the Waste and Minerals Core Strategy will begin in 2016 and this will provide an appropriate point for reassessing waste trends.

## APPENDIX A

### Non-hazardous landfill capacity assessment

Table A1

Year	MSW & C&I and imported London waste to landfill (Table A.2 of the Core Strategy)	Remaining non-hazardous landfill capacity (starting at 4,734,800m <sup>3</sup> )
2015/16	462,487	4,272,313
2016/17	440,038	3,832,275
2017/18	417,589	3,414,686
2018/19	393,468	3,021,218
2019/20	372,012	2,649,206
2020/21	349,131	2,300,075
2021/22	327,852	1,972,223
2022/23	305,278	1,666,945
2023/24	282,708	1,384,237
2024/25	260,142	1,124,095
2025/26	237,518	886,577
2026/27	215,023	671,554
2027/28	Estimate 215,000	456,554
2028/29	Estimate 215,000	241,554
2029/30	Estimate 215,000	26,554
2030/31	Estimate 215,000	-188,446
<b>TOTAL</b>	<b>5,202,018</b>	

Non-hazardous landfill capacity at 31/03/2015 was 5,320,000m<sup>3</sup>. 11% of non-hazardous voidspace is assumed to be taken up by inert waste, leaving 4,734,800 m<sup>3</sup> voidspace for non-hazardous waste.

The adopted Norfolk Minerals and Waste Core Strategy only contains forecast waste arisings and the associated need for landfill capacity covering the period up to 2026/27. Therefore, an assumption that a maximum of 215,000 tonnes per annum would continue to be disposed of to landfill in the years after 2026/27 has been used for the purposes of calculating how long the existing landfill capacity will last.

It should be noted Planning Permission was granted on 9 November 2011 for an extension to Attlebridge landfill site with 1,000,000 tonnes capacity. This planning permission was not implemented and it expired on 9 November 2014.

## Inert landfill and quarry restoration capacity assessment

Table A2

Year	Inert waste (tonnes)	Inert waste (m3)	Remaining inert landfill and quarry restoration capacity (starting at 1,706,500 m <sup>3</sup> )
<b>2015</b>	389,000	261,000	1,445,500
<b>2016</b>	398,000	267,000	1,178,500
<b>2017</b>	407,000	273,000	905,500
<b>2018</b>	415,000	278,000	627,500
<b>2019</b>	424,000	284,000	343,500
<b>2020</b>	433,000	290,000	53,500
<b>2021</b>	441,000	295,000	<b>-241,500</b>

The forecast inert waste arisings detailed in the table above are the same as those used to assess the need for additional inert landfill/quarry restoration capacity in the Norfolk Minerals and Waste Core Strategy.

It should be noted that non-hazardous landfill sites also received a proportion of inert waste (historically approximately 11% of the waste they receive). Therefore, there is the potential for an additional 585,200m<sup>3</sup> to be available for inert waste disposal in Norfolk's existing non-hazardous landfill sites, which would provide between around two years' additional capacity.