Kirklees Waste Need Assessment 2025

Capacity Requirement for the Management of Waste in Kirklees to 2043

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Abbreviations

Abbreviation	Full Term
AD	Anaerobic Digestion
C & I	Commercial & Industrial Waste
C, D & E / CDEW	Construction, Demolition & Excavation Waste
DEFRA	Department for Environment, Food and Rural Affairs
DMR	Dry Mixed Recyclables aka Mixed Dry Recyclables (MDR)
EA	Environment Agency
EfW	Energy from Waste
EWC	European Waste Catalogue
HWRCs	Household Waste Recycling Centres
LACW	Local Authority Collected Waste
MRS	Metal Recycling Site
MRF	Material Recycling Facility
RAF	Recycled Aggregate (Production) Facility
RDF	Refuse Derived Fuel
WDF	WasteDataFlow
WDI	Waste Data Interrogator
WNA	Waste Needs Assessment
WPA	Waste Planning Authority
WTS	Waste Transfer Station
WYWCM	The West Yorkshire Waste Capacity Model

Glossary of Terms

Term	Definition
Agricultural Waste	Waste produced on a 'farm' in the course of 'farming'. Agricultural waste takes both 'natural' (or organic) and 'non- natural' forms e.g. plastics and metal.
Anaerobic Digestion	A process to manage organic matter including green waste and food waste broken down by bacteria in the absence of air, producing a gas (biogas) and nutrient rich solid or liquid (digestate). The biogas can be used to generate energy either in a furnace, gas engine, turbine or to power vehicles, and digestate can be applied to land as a fertiliser.
Biowaste	Waste that can break down over time due to natural biological action/processes, such as food, garden waste and paper.
Commercial Waste	Waste from factories or premises used for the purpose of trade or business, sport, recreation or entertainment.
Composting	A process in which biodegradable waste (such as green waste and kitchen waste) is broken down in aerobic conditions by naturally occurring micro-organisms to produce a material suitable for use as a soil improver.
Construction, Demolition & Excavation Waste	Waste arising from the building process comprising demolition and site clearance waste and builders' waste from the construction/demolition of buildings and infrastructure. Includes masonry, rubble and timber.
Cl:aire DoW CoP	Definition of Waste Code of Practice Scheme administered by Cl:aire
Defra	The UK Government department responsible for developing national waste management policy.
Dry Mixed Recyclables	Source segregated recycled materials collected together (comingled) for onward separation.
Energy from Waste	The conversion of the calorific value of waste into energy, normally heat or electricity through applying thermal treatment of some sort. May also include the production of gas that can be used to generate energy.
Environment Agency	The body responsible for the regulation of waste management activities through issuing permits to control activities that handle or produce waste. It also provides up-to-date information on waste management matters and deals with other matters such as water issues including flood protection.
Exemptions	Certain activities exempt from the need to obtain an Environmental Permit. Each exemption has specific limits and conditions that must be complied with to remain valid. Exemptions must be registered with the Environment Agency. Each registration lasts 3 years.

Term	Definition
Green waste	Biodegradable plant waste from gardens and parks such as grass and hedge trimmings, from domestic and commercial sources suitable for composting.
Hazardous Waste Landfill	Sites where hazardous waste may be disposed by landfill. This can be a dedicated site or a single cell within a non-hazardous landfill, which has been specifically designed and designated for depositing hazardous waste.
Hazardous Waste	Waste requiring special management under the Hazardous Waste Regulations 2005 due to posing potential risk to public health or the environment (when improperly treated, stored, transported or disposed). This can be due to the quantity, concentration, or characteristics of the waste.
Household Waste	Waste from households collected through kerbside rounds, bulky items collected from households and waste delivered by householders to household waste recycling centres and "bring recycling sites". along with waste from street sweepings, and public litter bins.
Incineration	The controlled combustion of waste. Energy may also be recovered in the form of heat (see Energy from Waste).
Industrial Waste	Waste arising from any factory and from any premises occupied by an industry (excluding mines and quarries).
Inert Landfill	Landfill site permitted to only accept inert waste for disposal.
In Vessel Composting (IVC)	Composting materials within a closed system. Can be used to treat food and garden waste.
Landfill (including land raising)	The permanent disposal of waste to land, by the filling of voids or similar features, or the construction of landforms above ground level (land-raising).
Landfill Directive	European Union requirements restricting the landfilling of biodegradable municipal waste and requiring pre-treatment of all waste to be landfilled and separate disposal of hazardous, and non-hazardous and inert wastes.
Local Aggregate Assessment (LAA)	Annual local aggregate supply and demand assessment conducted by Mineral Planning Authorities which includes a survey of recycled, secondary and alternative aggregate producers within their particular Plan area.
Local Authority Collected Waste	Waste collected by or on behalf of a local authority. Includes household waste and business waste were collected by a local authority and non-municipal fractions such as construction and demolition waste delivered to HWRCs. LACW is the definition used in statistical publications, which previously referred to municipal waste.

Term	Definition
Mass Balance	Method of assessing the quantity of waste that may be converted to recycled aggregate by comparing inputs and outputs for sites reporting through the WDI.
Materials Recycling Facility (MRF)	A facility for sorting recyclable materials from the incoming waste stream. True MRFs would also report as Materials Facilities under *The Environmental Permitting (England and Wales) (Amendment) Regulations 2023*
Mechanical Biological Treatment (MBT)	A waste facility that combines a sorting facility with a form of biological treatment such as composting or anaerobic digestion.
Municipal Solid Waste (MSW)	Household waste and any other waste collected by a waste collection authority such as municipal parks and gardens waste and waste resulting from the clearance of fly-tipped materials.
Non-Hazardous Waste Landfill	A landfill permitted to accept non-inert (biodegradable) wastes e.g. municipal and commercial and industrial waste and other non-hazardous (including inert) wastes. May only accept hazardous waste if a special cell is constructed.
Open Windrow Composting	A process in which biodegradable waste (such as green waste and kitchen waste) is broken down in an open-air environment (aerobic conditions) by naturally occurring micro-organisms to produce a material suitable for use as a soil improver.
Recovery	Subjecting waste to processes that recover value including recycling, composting or thermal treatment to recover energy.
Recycling	The reprocessing of materials extracted from the waste stream either into the same product or a different one.
Refuse Derived Fuel	A fuel produced to a contract specification by processing the combustible fraction of waste.
Residual Waste	*The Environmental Targets (Residual Waste) (England) Regulations 2023*, defines residual waste as any waste other than excluded waste that is (a) sent to landfill in the United Kingdom; (b) put through incineration in the United Kingdom; (c) used in energy recovery in the United Kingdom; or (d) sent outside the United Kingdom for energy recovery.
The Plan area	The area subject to the Waste Local Plan to which this study relates. In this case the Metropolitan Borough of Kirklees.
Waste Collection Authority (WCA)	A local authority that has a duty to collect household waste. They also have a duty to collect commercial waste if requested to do so and may also collect industrial waste.
Waste Disposal Authority (WDA)	A local authority responsible for managing the waste collected by councils acting as waste collection authorities and the provision of household waste recycling centres. In this case Kirklees Council.

Term	Definition
Waste Planning Authority	The authority responsible for planning for waste within a specific administrative area. In this case Kirklees Council.
Waste Transfer Station	A site to which waste is delivered for sorting or baling prior to transfer to another place for recycling, treatment or disposal.
The West Yorkshire Waste Capacity Model	Access based model produced for West Yorkshire sub region WPAs in 2017.

Executive Summary

This report presents the outcome of the Waste Need Assessment (WNA) undertaken by BPP Consulting on behalf of Kirklees Borough Council. The WNA assesses the possible future need for additional waste management capacity in Kirklees to 2043. Future need is assessed by quantifying the principal waste streams arising in Kirklees and forecasting the amount of waste to be managed over the Plan period for management targets to be met, whilst considering the potential contribution existing waste management capacity[1] within Kirklees Borough may make towards meeting these.

The WNA found that a total of 0.68 million tonnes of wastes arose in Kirklees in 2023. The quantities of principal categories of waste arising are shown in Figure 1 below:

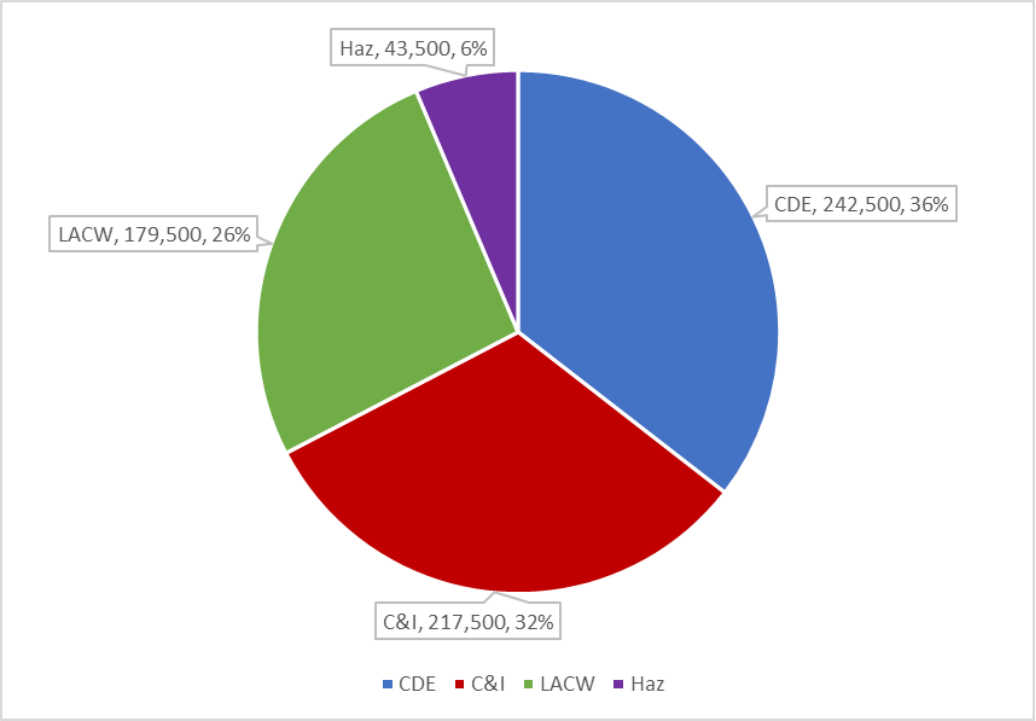


Figure 1: Quantities of Principal Waste Types Arising in Kirklees 2023 (tonnes)
Figures rounded to nearest 500 tonnes

The WNA found that:

- there is sufficient existing consented capacity to meet the predicted needs of the Plan area for recycling and composting, 'other recovery' and recovery of inert waste.
- given then are no non-inert landfills in Kirklees there is a predicted capacity shortfall throughout the entire Plan period, although need is expected decline over time. It is

[1] That which is lawful under planning law including consented and lawful development.

therefore recommended that opportunities for utilising non-inert landfill capacity outside Kirklees be explored further through DtC engagement with other Waste Planning Authorities (WPA). If that fails to identify sufficient capacity, then land may need to be identified within the Plan area to accommodate the declining management capacity requirement predicted to arise.

Purpose

1.1 This report presents the outcome of a comprehensive Waste Need Assessment (WNA) update undertaken by BPP Consulting on behalf of Kirklees Council. This WNA updates the findings of the WNA 2016 which underpinned the Kirklees Local Plan 2019. The WNA is intended to identify possible shortfalls in waste management capacity that may emerge over the proposed Plan period (to 2043) for which the emerging Local Plan may need to provide. The WNA estimates the amount of waste forecast to arise within Kirklees that will require management over the Plan period, assesses its management requirements and identifies possible future gaps in management capacity whilst taking into account the contribution existing waste management capacity may make. This work is undertaken in the context of the National Planning Policy for Waste (NPPW) and the national Planning Practice Guidance (nPPG), which expects that:

"*Planned provision of new capacity and its spatial distribution should be based on robust analysis of best available data.*" (PPG Para 035).

1.2 To achieve this the following steps have been followed:

1. Scope the key waste streams to be targeted for assessment;
2. Generate robust baseline waste arisings values;
3. Generate realistic forecasts of future arisings;
4. Define appropriate (relevant to the Plan area) targets for the management of each waste stream (to ensure that waste is managed in accordance with the waste hierarchy and national policy commitments);
5. Assess existing management capacity in Kirklees;
6. Quantify future capacity needs accounting for cross boundary movements of waste;
7. Establish any associated future gaps in waste management capacity.

1.3 The WNA consists of the following reports:

1. Management Requirements for Local Authority Collected Waste to 2043;
2. Management Requirements for Commercial & Industrial Waste to 2043;
3. Management Requirements for Construction, Demolition & Excavation Waste to 2043;
4. Management Requirements for Hazardous Waste to 2043;
5. Scoping Review of Management Requirements for Other Waste;
6. Review of Strategic Waste Flows.
7. This Overview Report.

Principal Data Sources

1.4 The principal data sources used to generate this WNA are as follows:

Waste Data Interrogator

1.5 Operators of all sites in England formally permitted to manage waste are required to submit returns on the quantities, types and origin of waste received and, where applicable, destination of waste removed at their sites. These returns are collated by the Environment Agency (EA) annually and are included in a national dataset known as the Waste Data Interrogator (WDI) - waste received and waste removed. This dataset is released approximately nine months after the end of the calendar year to which the data relates. The 2023 WDI (version 1 released Sep 2024) consisting of data for the calendar year 2023 is the most current version available at the time of writing.

Wastedataflow

1.6 Wastedataflow (WDF) is a web-based data entry portal used by local authorities to report on waste management arrangements to central Government on a quarterly basis. The data input is used to report on national recycling and landfill diversion performance as well as local authority league tables on recycling rates etc published by Defra following independent quality checking. While Councils normally report in financial years, as the EA WDI reports for calendar year the data for Kirklees covering the four quarters of 2023 has been accessed to ensure comparability between datasets.

Hazardous Waste Interrogator

1.7 In the UK producers and managers of hazardous waste must notify the environmental regulator for the country in which they are located (in England this is the EA) of movements of waste classed as hazardous. This data is collated and reported in the Hazardous Waste Interrogator (HWI). Data is currently reported down to the receiving local area (defined by council or unitary authority) rather than by receiving site. The latest HWI (HWI 2023) was released in September 2024 and reports data for 2023.

Quantities of Waste Produced in Kirklees

1.8 The WNA has found that c683,000 tonnes of wastes arose within Kirklees in 2023. The principal components are:

- Construction, Demolition & Excavation: c242,500 tonnes
- Commercial & Industrial Waste: c217,500 tonnes
- Local Authority Collected Waste: c179,500 tonnes
- Hazardous Waste: c43,500 tonnes

1.9 Quantities of waste arising from agriculture, wastewater treatment and non-nuclear radioactive waste management were also assessed as set out in nPPG[2] but not found to arise in sufficient quantities to warrant inclusion in the assessment exercise.

[2] Paragraph: 031 Reference ID: 28-031-20141016

Capacity Assessment Overview

1.10 The capacity of waste management facilities in Kirklees has been determined by undertaking a review of input data as reported through the annual editions of the Environment Agency issued WDI (2019-2023) dataset to identify peak inputs. This has been embellished by reference to planning consents and environmental permits where relevant input limits are specified. Reference was also made to values included in the West Yorkshire Waste Capacity Model (WYWCM). However, it is understood that these values were derived through interrogation of WDI data for the period 2006 – 2013 (updated with 2015 data) so are somewhat dated. Therefore, the updated Kirklees specific interrogation of the WDI for the period 2019-2023 supported by review of planning consents and permit limits was used in preference.

1.11 There may be some instances where sites have the benefit of planning consent for a waste use but do not benefit from an environmental permit, because the operation falls under permitting exemptions. As a result, returns for waste received at these sites are not submitted to the Agency and therefore such sites are not included in the WDI. In such cases, the planning consent capacity values have been taken where known.

1.12 Facilities where waste recyclate is reprocessed into product, such as glass-furnaces and paper mills, were not included in this assessment exercise as they are not considered to be waste development under the relevant regulations[3] and therefore are not planned for in a waste local plan.

Net Self Sufficiency

1.13 Net self-sufficiency is a principle used in waste planning to establish how much management capacity might be planned for in a particular Plan area. This follows the polluter pays principle whereby the area that produces the pollution (in this case waste) should take responsibility for managing it. The 'net' in 'net self-sufficiency' is applied to recognise that waste does not generally recognise administrative boundaries and so there is no expectation that every tonne of waste produced in Kirklees in this case ought to be managed within Kirklees, rather that, overall, there should be a balance of provision. The objective of net self-sufficiency is therefore to ensure that there is sufficient capacity to manage the tonnage of waste equivalent to that predicted to arise

[3] *The Town and Country Planning (Prescription of County Matters) (England) Regulations 2003* SI 2003 No. 1033

within a Plan area over the time period which a local Plan is intended to cover. (in this case in Kirklees to 2043).

1.14 The degree to which Kirklees is net self-sufficient may be established by comparing the available management capacity within Kirklees against the projected capacity requirements determined in the separate waste stream specific reports, to ascertain if any gaps exist or are predicted to emerge over time.

1.15 It should be noted that while the assessment of management requirements has been conducted on a waste stream-specific basis within each waste stream report, the assessment of capacity has not been conducted in such a precise way since a facility may manage waste from a number of different waste streams at the same time. For example, sites receiving C, D & E waste in skips for recycling may also receive C&I waste and LACW for transfer. This means it is necessary to interpret between the identified needs in the individual waste streams reports and the existing available capacity to identify any projected capacity shortfall.

Sources of Facility Capacity Data

1.16 As a starting point a list of all permitted waste sites was downloaded from the EA online public register to identify all sites subject to an environmental permit for waste in December 2024. Facility capacity data was then collated from the WDI published by the EA over the most recent 5-year period 2019-2023 (See Appendix 1). The 5-year peak input was then calculated on a site-by-site basis. For any sites that managed a significant amount of hazardous waste (greater than 20% of the total peak amount of waste managed in latest year of data available in the WDI) this was deducted from the preferred capacity value taken for non-hazardous waste, to ensure that hazardous waste management capacity provided by these sites was not compromised.

1.17 To allow for the possibility that the peak input value to intermediate waste sites in any particular year is not an absolute limit, a 15% 'freeboard' was added to the peak input values shown in the 5-year WDI dataset. This adjustment is intended to reflect the maximum realistic throughput of a facility, as opposed to theoretical capacity that may be indicated by, for example, the site's Environmental Permit. Planning consents issued by Kirklees Council were also referred to. These sources of data were used to arrive at an assessed annual capacity value. These values were then verified through a survey of operators of Kirklees sites that managed 1,000 tonnes or more of waste in 2023. The

outcome of the survey is reported separately[4] but where the capacity value was either verified or amended the values supplied have been used.

1.18 It should be noted that any assessment of the total waste management capacity of a Plan area only presents a snapshot at a particular point in time, as the number of waste management facilities in operation is in a state of flux, as sites close and new sites come on stream.

Kirklees Area

1.19 A small area of the Peak District National Park (PDNP) is located within Kirklees administrative boundary. However, as the PDNP has its own local plan, the Kirklees Local Plan does not plan for the area covered by the PDNP that falls within it. Given the WDI does not report waste for PDNPA as WPA, any waste arising from within that portion of the PDNP that falls within Kirklees will be reported as having arisen within Kirklees. Therefore, the datasets used in this WNA exercise may over report arisings to be provided for through the emerging Kirklees Local Plan to some degree.

[4] *Kirklees Waste Management Site Operator Survey* BPP Consulting July 2025.

Capacity in Kirklees by Management Method

Types of Waste Management Capacity

1.20 The waste hierarchy is set out at Article 4 of the revised Waste Framework (Directive 2008/98/EC) and compliance with it is obligatory under *The Waste (England and Wales) (Amendment) Regulations 2012.* The hierarchy sets an order of preference by which waste is to be managed, starting with the preferred option of prevention (Tier 1), followed by preparing waste for re-use (Tier 2), recycling/composting (Tier 3) and 'other recovery' (Tier 4), with disposal (Tier 5) (such as landfill or incineration without energy recovery) as the least favoured as shown in Figure 2.

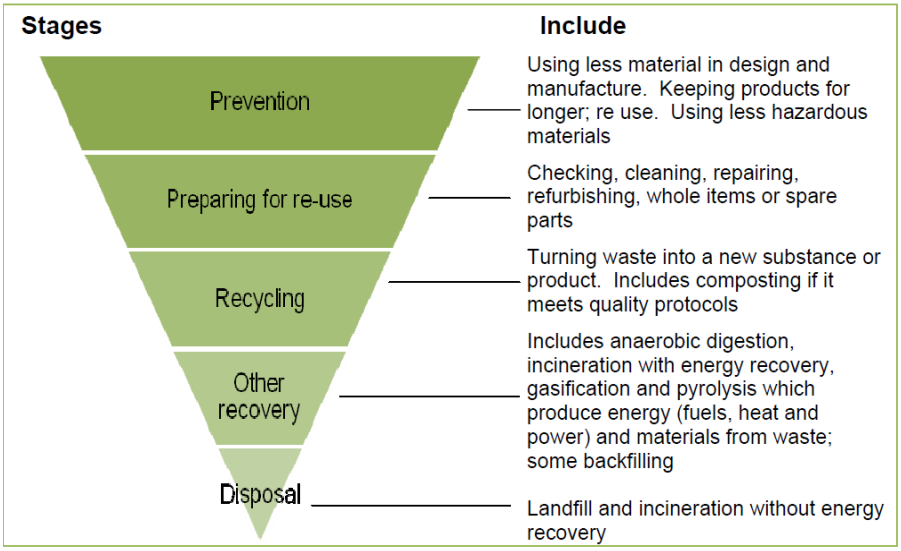


Figure 2: Diagrammatic representation of the Waste Hierarchy

1.21 It should be noted that under the Waste Framework Directive, recycling, composting and 'other recovery' operations such as Energy from Waste (EfW) and Anaerobic Digestion (AD) are all classed as 'recovery' operations. Hence the use of the term 'other recovery', to distinguish between operations that involve recycling and/or composting on Tier 3 and those that are located on Tier 4. This includes EfW facilities[5], where waste

[5] While the EfW Facility in Kirklees produces IBA, which can be recycled as secondary aggregate and from which metal for recycling can be extracted, this IBA processing capacity has not been counted as the full input capacity of the EfW to manage residual waste has been counted in full. To do otherwise would risk double counting.

is burnt to produce power and/or heat or a combustible gas, that meet a minimum performance standard set out in the R1 formula, plus AD plants.

1.22 Following the waste hierarchy should generally lead to the most resource efficient and environmentally sound approach to managing waste. However, because the 'best' choice can be influenced by the fact that different waste streams have different characteristics (such as calorific value), in some cases departing from the waste hierarchy can lead to better environmental outcomes. When considering whether a departure from the waste hierarchy would be justified, decision-makers are to base their choices on "*..life-cycle thinking as reflected in the findings of Life Cycle Assessments*". The way in which the findings of such assessments are relevant to decision making on the application of the hierarchy to waste management has been summarised by the responsible UK Government Department Defra[6].

1.23 **Recycling** is taken to include any activity that either results in the separation of materials suitable for use as a raw material and/or its actual conversion to a product (reprocessing)[7]. For the purposes of this capacity assessment exercise, recycling capacity does not include reprocessing capacity where a material such as wastepaper is converted into a product such as newsprint as that is a manufacturing process not a waste use. Plants or facilities where such processes take place are generally not considered to be development undertaken for the purposes of managing waste and so do not usually require planning consent from the WPA (to which the Waste Local Plan primarily relates). Recycling capacity can take various forms, from depots where source separated recyclable materials are bulked up for onward recycling/reprocessing, to facilities where materials are separated out on delivery e.g. Household Waste Recycling Centres (HWRCs), through to fully fledged Material Recycling Facilities where complete loads of waste pass through a processing line to extract and separate materials for onward reprocessing.

1.24 **Composting**, involves the decomposition of biodegradable and putrescible matter by aerobic processes. Composting facilities come in two principal forms, open-air (windrow), or enclosed (In Vessel Composting (IVC)). Due to the requirements of the Animal By-Products Regulations, open-air composting is only suitable for treating biodegradable waste such as green waste and cardboard, while IVC can also process putrescible food wastes such as kitchen wastes.

[6] *Applying the Waste Hierarchy: evidence summary* DEFRA June 2011 https://assets.publishing.service.gov.uk/media/5a797dfde5274a3864fd7772/pb13529-waste-hierarchy-summary.pdf

[7] Note the WDI 2023 does not indicate any operational reprocessing sites being located in Kirklees in 2023.

1.25 **Anaerobic Digestion (AD)** involves the decomposition of biodegradable and putrescible matter within a vessel to produce biogas which may then be burnt to generate energy. While it is classified in the waste hierarchy as a form of 'other recovery' (Tier 4), life cycle assessment has demonstrated that it is better than composting and 'other recovery' options when it comes to the management of food wastes, and garden waste if the digestate is a product meeting quality standards for use as a soil conditioning fertiliser. Given that deviation from compliance with the waste hierarchy may be justified by life cycle thinking, it is therefore appropriate for AD to be considered alongside composting as an organic waste treatment method that can contribute to meeting recycling/composting targets.

1.26 Kitchen and commercial food waste can only be processed in enclosed systems such as IVC and AD facilities to ensure the requirements of the Animal By-Products Regulations 2005[8] are met.

1.27 In this report, 'Recycling/composting' is therefore used as a shorthand term for material recycling and organic waste treatment including AD.

Recycling Capacity

1.28 Table 1 shows the assessment of recycling capacity in Kirklees for all non-hazardous waste i.e. inert and non-inert waste excluding metal recycling sites (MRS)[9].

1.29 The WDI includes 'treatment' as a site category and sites classed under this category have been counted towards providing recycling capacity and are shown in Table 1. Any additional 'treatment' sites that reported through the WDI in the period 2019-2023 have also been included in Table 1.

1.30 Sites classed as Material Recycling Facilities (MRFs) in the WDI have also been included in Table 1. It should be noted that sites classed under the heading 'MRF' in the EA dataset are not necessarily true MRFs, where mixed (or co-mingled) recyclates such as plastics, metals, paper, cardboard, glass collected together as DMR/MDR undergo

[8] SI2005 No.2347

[9] Accounted for separately so sites offering hazardous waste management capacity (ELV depollution sites) and C, D & E and C&I waste management capacity (MRS) can be identified separately.

sorting and separation into the individual material streams for onward reprocessing/recycling.[10]

Other Recycling Capacity

1.31 Whilst the WDI 2023 included 13 sites under the transfer site category, closer examination of the inputs and fates of the outputs of these sites (WDI waste removed dataset) revealed some separation and processing for recycling takes place. Of these sites:

- 8 sites were found to be undertaking some recycling and so have been included in Table 1 below;
- 1 site was found to receive all metal waste. Even though the fate of the outputs were reported as going to transfer(D) it has been assumed that this was a WDI entry error, so the site has been counted as a MRS in Table 2;
- 2 were assessed to be converting C, D & E waste to recycled aggregate and have thus been included in Table 6 (that relates solely to inert waste recycling capacity);
- 1 site was found to receive a 50:50 split of metals and CDE/ skip waste with outputs reported as going to landfill and other fate. Further interrogation of the site indicates that some processing is undertaken at the site. So 50% of the inputs are counted as metal recycling in Table 2 and 50% counted as transfer in Table 7; and
- The remaining site was assessed to be a true transfer site and is included in Table 7.

Table 1: Assessed Capacity of Recycling Facilities in Kirklees for non-hazardous waste excluding MRSs

Site Name	Operator	Site Category as per EA WDI	Peak Input +15% tonnes (Appendix 1)	Operator Survey Value *(contacted but no positive response in italics)*	Preferred Value (tonnes p.a.)
Wilkinson Brothers, Heckmondwike Road	J & D Wilkinson t/a Wilkinson Brothers	Transfer	1,222	1,222	1,222
Land/premises at Clay Lane	Colne Valley Skip Hire	Transfer	4,629	*4,629*	4,629

[10] True MRFs would also report as Materials Facilities under *The Environmental Permitting (England and Wales) (Amendment) Regulations 2023*

Site Name	Operator	Site Category as per EA WDI	Peak Input +15% tonnes (Appendix 1)	Operator Survey Value *(contacted but no positive response in italics)*	Preferred Value (tonnes p.a.)
West End Mills	C & J Blackburn	Transfer	20,629	20-21,000	21,000
Headlands Road Depot	Kirklees Council	Transfer	25,224	-	25,224
The Reins	Kirklees Council	Transfer	23,433	-	23,433
Dewsbury Transfer Station	Biffa G S (M & B) Ltd	Transfer	87,683	*87,683*	87,683
The Stone Yard	Tiger Skip Hire Ltd	Transfer	31,185	*4,999*	31,185
Thornhill Integrated Waste Management Facility	Suez Recycling & Recovery Kirklees Ltd	Transfer	116,992	-	116,992
3-4 Crimble Clough Rd	David Price t/a Cheap As Skips	Treatment	8,656	8,656	8,656
Thornhill Works, Calder Rd	Newlay Concrete Ltd	Treatment	19,989	*19,989*	19,989
Vine Street MRF	Suez Recycling & Recovery Kirklees Ltd	Treatment	20,981	*20,981*	20,981
				Total capacity	**360,993**

Table 1 shows a total operational recycling capacity in Kirklees (excluding MRSs) of **c361,000 tpa.**

Metal Recycling Capacity (MRS)

1.32 Scrap metal principally comes from industrial sources along with demolition and construction activity. End of life vehicles (ELVs) come from all sources including households. The WDI shows that in Kirklees 5 metal recycling site (MRS) and 11 ELV authorised treatment facilities (ATF) received waste in 2023. Furthermore, 2 ELV ATFs held permits but made no return. As ELVs are classed as hazardous waste until they have been depolluted, the capacities of sites primarily/ exclusively managing these have not been counted here, on the basis that they will primarily be managing hazardous waste

which is accounted for in a separate hazardous waste management requirement report. The MRSs and their assessed capacities are shown in Table 2 below.

1.33 Furthermore, the exemption register for exemption T9 (recovering scrap metal) indicated 4 operational sites in Kirklees. As exempt facilities do not report waste tonnage received, reference has been made to the estimates included in the original national Reconcile method[11]. These estimated sites operating under a T9 exemption may handle 2,500 tpa.

Table 2: Assessed Capacity of Metal Recycling Sites in Kirklees excluding ELV ATFs

Site Name	Operator	Peak Input +15% (tonnes) (Appendix 1)	Operator Survey Value *(contacted but no positive response in italics)*	Preferred Value (tonnes p.a.)
Autowell Motor Factors	Mohammed Akram	12	-	12
High House Lane	J B Schofield & Sons Ltd	14,092	*14,092*	14,092
Milnsbridge Metals Ltd T/A Melarose Metals	Milnsbridge Metals Ltd	6,061	-[12]	6,061
Black Chapel Lane	Sims Group Uk Ltd	9,398	*9,398*	9,398
Ravensthorpe Industrial Estate	The Griffiths Group Ltd	28,509	*28,509*	28,509
Mill Street East Side	K & M Metals Ltd	6,247	6,000	6,000
Unit 10 West End Mills	J T Shingleton & Son	5,960	*5,960*	2,980[13]
Exempt Facilities				
St. Andrews Road	Cummins Turbo Technologies Ltd	-	-	2,500
Firth Street	Albert Haigh & Son Ltd	-	-	2,500
Unit 1, Bradley Junction Industrial Estate, Leeds Road	Consolidated Distribution Holdings, Ltd	-	-	2,500

[11] DEFRA, Commercial and Industrial Waste Survey 2009 Final Report (December 2010).

[12] Failed to establish contact through operator survey.

[13] 50% of the preferred capacity taken as MRS capacity as discussed in paragraph 3.12 bullet point 4.

Site Name	Operator	Peak Input +15% (tonnes) (Appendix 1)	Operator Survey Value *(contacted but no positive response in italics)*	Preferred Value (tonnes p.a.)
Unit 114, Colne Valley Business Park	Colltex Ltd	-	-	2,500
			Total capacity	**77,051**

Table 2 shows a total operational non-hazardous metal recycling capacity in Kirklees of c77,000 tpa. When combined with the total for recycling capacity of **c361,000** tpa this gives **a running total recycling capacity of c438,000 tpa.**

Organic Waste Treatment Capacity

1.34 The WDI indicates that only one permitted anaerobic digestion (AD) plant operates in Kirklees. Its assessed capacity is shown in Table 3 below.

Table 3: Assessed Capacity of Organic Waste Treatment Sites in Kirklees

Site Name	Operator	Principal Waste Type Managed[14]	Consented capacity (pa)	Peak Input (Appendix 1)	Operator Annual Capacity	Preferred Value
Clayton Hall Farm Bioenergy Plant	Clayton Hall Farm Bioenergy Llp	C&I and agricultural	49,000	47,791	45,000	49,000[15]
					Total capacity	**49,000**

1.35 Table 3 shows a total operational organic waste treatment capacity in Kirklees of c49,000 tpa. When combined with the running total recycling capacity of c438,000 tpa, this gives a **total running combined recycling/composting capacity of c487,000 tpa.**

[14] Distinction between principal waste streams made as sites that manage agricultural waste need to be excluded as their capacities manage agricultural waste accounted for in the 'Other Waste' stream report.

[15] All capacity counted towards C&I recycling given only 7% inputs in 2023 were agricultural waste.

Household Waste Recycling Centres

1.36 In addition, there are 4 household waste recycling centres (HWRCs) provided by Kirklees Council operated under contract by Suez Recycling & Recovery Kirklees Ltd. Their assessed recycling capacities are shown in Table 4.

Table 4: Assessed Capacity of HWRCs in Kirklees (tonnes)

Site Name	Peak Input +15% (Appendix 1)	Kirklees Council	Preferred Value
Bromley Farm	5,239	-	5,239
Meltham	9,266	-	9,266
Thornhill WTS & Weaving Lane HWRC	-	150,000[16]	10,000
Emerald Street HWRC & Compost Pad	26,399	24,999[17]	15,000
		Total Capacity	**39,505**

1.37 Data provided by Kirklees Council shows an average of 50% of the outputs from HWRCs in Kirklees are recycled. Of the remaining residual waste, c8% was landfilled and c92% sent for other recovery at EfW facilities. This gives c20,000 of recycling capacity, c18,000 tpa of other recovery capacity, and c1,500 tpa transfer for disposal capacity (for residual waste).

1.38 When the value in Table 4 and the value in para 3.18 are combined with the running recycling/composting capacity of c487,000 tpa this gives a **total combined recycling/composting capacity in Kirklees of just overc0.5 M tonnes pa** as shown in Table 5.

Table 5: Combined Recycling/Composting Capacity in Kirklees

Capacity Type	Assessed capacity (tpa)
Recycling	360,993

[16] Combined WTS and HWRC capacity the bulk of which (116, 992t) is counted in Table 1.

[17] As advised by Kirklees Council, the EA permit provides combined capacity of 24,999 tonnes for the operation of an HWRC and composting facility. Given, Kirklees Council has given a capacity of 15,000 tonnes for the HWRC, the remaining 9,999 tonnes has been allocated to the compost pad.

Capacity Type	Assessed capacity (tpa)
Metal Recycling	77,051
Organic Waste Treatment	49,000
HWRC Recycling	19,752
Total	**506,796**

Recycled Aggregate Facilities

1.39 There are a number of sites where inert C, D & E waste is recycled into product such as recycled aggregate and screened soils. Table 6 identifies these sites along with the consented throughput, peak input +15% and capacity value given by responding operators.

Table 6: Recycled Aggregate Facilities in Kirklees

Site Name	Operator	Consented capacity (tonnes p.a.)	Peak Input +15% (Appendix 1)	Operator Survey Value *(contacted but no positive response in italics)*	Preferred value
Windy Ridge Quarry	Windy Ridge Recycling Ltd	-	27,445	-	27,445
Red Doles Lane	Myers Skip Hire Ltd	-	35,399	50,000	50,000
Clayfield Works	Bower Skip Hire Ltd	-	10,514	10-11,000	11,000
Johnsons Wellfield Treatment Plant	Wellfield Quarry, Blackmoorfoot Road	-	3,194	*3,194*	3,194
Temple Quarry	Mone Brothers Excavations Ltd	-	85,257	85,000	85,000
Carr Hill Quarry	PMW Quarries Ltd	-	46,816	30,000	-[18]
Bretton Street Rail Depot	Land Recovery Ltd	50,000[19]	2,085	*2,085*	50,000
				Total	**226,638**

[18] Planning permission expired 2022. An application to extend to 31st August 2027 *(2022/90169)* is pending decision.

[19] As per response from call for sites conducted by Kirklees Council.

Table 6 shows a total assessed operational recycled aggregate production capacity in Kirklees of **c226,500 tpa in 2023. This is counted as inert C, D & E waste recycling capacity.**

Waste Transfer Capacity

1.40 Given transfer station capacity that facilitates recycling by providing bulking capacity as discussed previously, is already accounted for as providing recycling capacity in Table 1, waste transfer capacity is taken to refer to the reception and bulking of collected residual wastes destined for its final fate at other facilities. Transfer capacity can be accommodated at dedicated sites or at sites where other waste management activities take place. For example, sites accepting skip waste for recycling may also accept residual C&I waste for bulking up for onward disposal. Their assessed capacities are shown in Table 7.

Table 7: Assessed Waste Transfer Capacity in Kirklees

Site Name	Operator	Peak Input +15% tonnes (Appendix 1)	Operator Survey Value *(contacted but no positive response in italics)*	Preferred Value (tonnes p.a.)
Unit 10 West End Mills	J T Shingleton & Son	5,960	*5,960*	2,980[20]
Alder Street Depot	Kirklees Council	9,023	-	9,023
			Total capacity	**12,003**

Table 7 shows a total assessed operational transfer capacity in Kirklees of **c12,000 tpa in 2023.**

Final Fate Capacity

1.41 The types of facilities assessed thus far provide 'intermediate' capacity where waste is processed/ sorted before being transported on for management at its 'final fate' management point. This section accounts for the capacity provided by sites where waste actually meets its final fate (other than where waste is converted into useful materials e.g. compost or recyclate). This includes landfill, EfW and recovery to land sites.

[20] 50% of the assessed capacity taken as recycling capacity for skip waste in Table 2 as discussed in paragraph 3.12 bullet point 4.

Landfill Capacity

1.42 The WDI shows there were 2 landfills operating in Kirklees during 2023 however, Bradley Park hazardous waste landfill is shown as having no void remaining at the end of 2023, and the Operator Survey confirmed the operator has gone into liquidation. Therefore, no further assessment of capacity has been undertaken for this site.

Inert Waste Landfill Capacity

1.43 Details of the single remaining operational inert landfill site[21] in Kirklees are set out in Table 8. Given, the mass of waste does not directly correspond to its volume i.e. 1 tonne of waste does not necessarily occupy 1 cubic metre of airspace/void, it has been assumed that 1.5 tonnes of inert waste would be accommodated within one cubic metre of void.

Table 8: Assessed Capacity of Consented/ Operational Inert Waste Landfill in Kirklees

Site Name	Operator	Permitted void space end of 2023 EA data (m^3)	End of 2023 capacity (tonnes) (m^3 x 1.5)
Wellfield Quarry Landfill	Johnsons Wellfield Quarries Ltd	135,019	202,529

Table 8 shows that there is c135,000m^3 of consented inert landfill void in Kirklees offering final fate management capacity for just over c200,000 tonnes of inert waste. The site permission has no apparent end date.

1.44 In addition to this, planning permission was granted in October 2018 for the extraction of 1M tonnes of mineral and subsequent reclamation to agriculture at Moor End South, Crosland Moor, Huddersfield by Johnson Wellfield Ltd[22]. While the planning documents states "*The Scheme does not rely on the importation of any materials to achieve the reclamation proposed.*" (EIA NTS) it does not rule it out. The Decision Notice references the use of subsoil to be spread over the backfilled overburden, to a depth of between 350mm and 500mm depending on the proposed final use. Given the total area of the site is stated to be 23.5 hectares this suggests a minimum requirement for subsoil of

[21] Generally, such schemes are considered as 'recovery' from a planning perspective as they provide for restoration of the landfill and a beneficial afteruse of the land. However, such sites may be classed as landfills for permitting purposes.

[22] Planning permission *(2017/62/91213/WO).*

c82,250m^3, which corresponds to c123,500 tonnes if compacted to a density of 1.5. At the time of writing the site is not subject to an environmental permit for infilling.

Recovery to Land Capacity

1.45 The WDI 2023 reports a single Recovery to Land operation receiving waste in 2023 in Kirklees. The total capacity is unknown[23].

'Other Recovery' Capacity

1.46 The Kirklees EfW facility is the single operational EfW facility in Kirklees. This site has a permitted capacity of 150,000 tpa. Given this is provided by, and operated under contract to Kirklees Council, it is taken that this capacity will be utilised to process LACW only.

Capacity Summary

Intermediate Site Capacity

1.47 Table 9 shows a summary of assessed capacity of the different type of facilities operating in Kirklees in 2017-2023.

Table 9: Assessed Capacity of Intermediate Waste Management Sites in Kirklees (tpa)

Waste Type	Non-inert waste	Non-inert waste	Inert waste
Capacity Type	**Recycling**	**Transfer (without recycling)**	**Recycling**
Other Recycling (Table 1)	360,993	-	-
Metal Recycling (Table 2)	77,051	-	-
Organic Waste Treatment (Table 3)	49,000	-	-
HWRC Recycling (Table 4)	19,752	-	-
Recycled Aggregate (Table 6)	-	-	226,638
Waste Transfer (Table 7)	-	12,003	-
Total	**506,796**	**12,003**	**226,638**

[23] The operator survey was unable to establish contact with the site operator. Information provided by Kirklees Council confirms that this is a sand and gravel quarry undergoing restoration which is nearing completion. So capacity has not been considered further.

1.48 In 2023, capacity for managing waste at intermediate sites in Kirklees totalled **c745,500 tpa.**

Final Fate Capacity

1.49 Table 10 sets out a summary of final fate capacity in Kirklees.

Table 10: Assessed Recovery Capacity of Final Fate Waste Management Facilities in Kirklees (tonnes)

Capacity Type	Non-inert waste	Inert waste
Inert Waste Landfill	-	202,529[24]
EfW as 'Other Recovery'	150,000[25]	-
Total	**150,000**	**202,529**

[24] Plus c123,500t when Crosland Moor mineral extraction permission implemented.

[25] This value is taken to include the c18,000 tonnes of HWRC for Incineration as set out in paragraph 3.18.

Assessing the Capacity Gap in Kirklees

Waste Management Requirements

1.50 The proposed targets generated through the waste stream specific assessments are presented together in Table 11 below.

Table 11: Proposed Management Targets for Kirklees waste (percentages by waste stream)

Treatment	Type of waste	*2023*	2028	2033	2038	2043
Non-inert Recycling/Organic Waste Treatment	LACW	*24%*	≥55%	≥60%	≥65%	≥70%
Non-inert Recycling/Organic Waste Treatment	C&I	*66%*	70%	75%	80%	80%
Non-inert Recycling/Organic Waste Treatment	CDEW	*19%*	20%	20%	20%	20%
Residual waste Other Recovery	LACW	*69%*	*38%*	35%	32%	30%
Residual waste Other Recovery	C&I	*32%*	28%	24%	19%	19%
Residual waste Non-Inert Landfill	LACW	*7%*	≤5%	≤5%	≤3%	≤1%
Residual waste Non-Inert Landfill	C&I	*2%*	2%	1%	1%	1%
Residual waste Non-Inert Landfill	CDEW[26]	*0%*	0%	0%	0%	0%
Aggregate Recycling/ Recovery to Land and Recovery in Landfill	Inert CDE	*81%*	80%[27]	80%	80%	80%

[26] All C, D & E waste sent to non-inert landfill in the WDI 2023 was inert soils and stones counted towards recovery.

[27] Remaining 20% taken to be non-inert fraction that is recycled.

The management requirements for waste forecast to be produced in Kirklees that flow from meeting the above targets are set out in Table 12. The progression to the target milestones is compared with the baseline value for 2023.

Table 12: Forecast Waste Management Requirements in Kirklees at Plan Milestone years (tonnes)

⇩ indicates dropping over Plan period; ⇧ **indicates rising over Plan period**

Treatment	Type of waste	*2023*	2028	2033	2038	2043	Peak or Cumulative Capacity (landfill - underlined) Requirement (tonnes)
Non-inert Recycling/Organic Waste Treatment	LACW	*42,967*	95,123	99,733	103,670	106,935	106,935⇧
Non-inert Recycling/Organic Waste Treatment	C&I	*134,322*	156,489	172,329	188,929	194,182	194,182 ⇧
Non-inert Recycling/Organic Waste Treatment	CDEW	*45,099*	48,527	48,527	48,527	48,527	48,527-
	Total	***223,607***	**300,139**	**320,589**	**341,126**	**349,644**	***349,644***
Residual waste Other Recovery	LACW	*123,386*	65,721	58,178	51,038	45,829	**65,721⇩**
Residual waste Other Recovery	C&I	64,737	62,596	55,145	44,871	46,118	**62,596⇩**
	Total	***185,240***	**128,317**	**113,323**	**95,909**	**91,947**	***128,317***
Residual waste Non-Inert Landfill	LACW	*13,327*	8,648	8,311	4,785	1,528	**126,627**
Residual waste Non-Inert Landfill	C&I	3,931	4,471	2,298	2,362	2,427	**56,757**
Residual waste Non-Inert Landfill	CDEW	*0*	0	0	0	0	**0**
	Total	***20,340***	**13,119**	**10,609**	**7,147**	**3,955**	
Aggregate recycling/ Recovery to Land and Recovery in Landfill	Inert CDE	*197,736*	≥194,102	≥194,102	≥194,102	≥194,102	-

How the waste management capacity requirements identified in Table 13 above might be met is discussed below.

Recycling & Composting Waste Management

1.51 Recycling and organic waste treatment (aka composting) have been taken to sit at the same tier of the waste hierarchy and may therefore be considered interchangeable in terms of the movement of waste up the hierarchy. Therefore, combined targets are proposed.

1.52 When the total assessed management capacity for recycling and composting of c507,000 tpa shown in Table 9 is compared with the estimated combined recycling and composting peak requirement of c349,500 tpa shown in Table 12, it can be concluded that sufficient capacity exists in Kirklees to meet the Tier 3 recycling/composting requirement through the whole Plan period as shown in Table 13.

1.53 It should further be noted that to recycle a tonne of waste does not necessarily require provision of waste management capacity capable of processing a tonne of waste. Much depends on how the waste is presented for collection, plus the proximity to reprocessing sites. So, for example if waste is segregated effectively at source, the resulting materials may be delivered directly to a reprocessing site and not require provision of additional sorting capacity. It is notable in that regard that the Environment Act now requires the separate collection of at least three materials - food waste, dry mixed recyclables and glass - from all homes and business premises - in the next two years. If materials are not separated at source, then they may require processing through a MRF before going on for recycling/reprocessing.

Table 13: Kirklees Waste Recycling/Composting Capacity Requirement at Plan Milestone years (tonnes)

Source: Table 9 & 12

Year	2028	2033	2038	2043	Peak Requirement (tonnes)
Recycling /Composting Requirement	300,139	320,589	341,126	349,644	349,644
Plan Area Capacity	506,796	506,796	506,796	506,796	
Shortfall	**0**	**0**	**0**	**0**	

Residual Waste Management

1.54 While there is no obligation for Kirklees to achieve net self-sufficiency for non-inert waste management alone throughout the Plan period, the disposal or recovery of mixed municipal waste is subject to the proximity principle and hence consideration has been given to the sufficiency of consented residual waste management capacity within Kirklees. This approach recognises that the proximity principle encourages each WPA to plan for the management of mixed municipal waste through disposal and energy recovery on a more localised basis[28].

1.55 Statutory residual waste reduction targets have been set for England through *The Environmental Targets (Residual Waste) (England) Regulations 2022.* This is to halve residual waste production per head by 2042. Residual waste includes all waste other than that which is expressly exempted disposed to non-inert landfill or managed by EfW at home or abroad (RDF), with no distinction being made in law between the two management method. Both are to be avoided if the target is to be met. This means that demand for both can be expected to fall over time.

Kirklees Residual Waste 'Other Recovery' Capacity

1.56 When the total assessed management capacity for 'Other Recovery' of c150,000 tpa shown in Table 10 is compared with the estimated peak combined recovery requirement of c128,500 tonnes shown in Table 12, it can be concluded that sufficient capacity exists in Kirklees for the 'other recovery' requirement to be met through the whole Plan period as shown in Table 14. This does not expressly account for the halving residual waste by 2042 target which may mean the requirement is reduced.

Table 14: Kirklees Waste 'Other Recovery' Capacity at Plan Milestone years (tonnes)
Source: Table 9 & 12

Year	2028	2033	2038	2043	Peak Requirement (tonnes)
Other Recovery Requirement	128,317	113,323	95,909	91,947	**128,317**
Plan Area Capacity	150,000	150,000	150,000	150,000	
Shortfall	**0**	**0**	**0**	**0**	

[28] *Waste Management Plan for England* (DEFRA, January 2021)

Kirklees Residual Waste Landfill Capacity Requirement

1.57 According to the Environment Agency dataset for remaining landfill void in 2023[29] there are no operational non-inert landfill sites in Kirklees. Given the absence of non-inert landfill capacity currently, all non-hazardous residues produced within Kirklees requiring landfill is managed beyond Kirklees. If this situation continues then all non-hazardous waste residues requiring landfill produced within Kirklees would need to be disposed at sites outside the Plan area for the duration of the Plan period. The continued availability of capacity to accommodate the reducing quantity of residues has been established through Duty to Cooperate (DtC) engagement with WPAs hosting sites with capacity[30].

1.58 Table 15 shows the annual and cumulative requirement predicted to arise over the Plan period.

Table 15: Predicted Non-Inert Landfill Capacity Requirement for Kirklees Waste

Year	C&I	LACW	Total annual requirement (tpa)	Cumulative Requirement (tonnes)
2025	4,147	10,987	15,134	-15,134
2026	4,255	10,207	14,462	-29,597
2027	4,363	9,427	13,790	-43,387
2028	4,471	8,648	13,119	-56,506
2029	4,036	8,580	12,616	-69,122
2030	3,602	8,513	12,115	-81,237
2031	3,167	8,446	11,613	-92,850
2032	2,732	8,378	11,110	-103,960
2033	2,298	8,311	10,609	-114,569
2034	2,310	7,606	9,916	-124,485
2035	2,323	6,901	9,224	-133,708
2036	2,336	6,195	8,531	-142,240
2037	2,349	5,490	7,839	-150,079
2038	2,362	4,785	7,147	-157,226
2039	2,375	4,133	6,508	-163,734
2040	2,388	3,482	5,870	-169,604
2041	2,401	2,830	5,231	-174,835
2042	2,414	2,179	4,593	-179,428
2043	2,427	1,528	3,955	-183,383

[29] https://www.data.gov.uk/dataset/237825cb-dc10-4c53-8446-1bcd35614c12/remaining-landfill-capacity1

[30] See *Kirklees WNA 2025 – Strategic Flows* BPP Consulting September 2025.

1.59 Table 15 shows a predicted cumulative non-inert landfill requirement of c183,500 tonnes by the end of the Plan period based on a declining annual requirement of c15,000 tonnes in 2025 reducing to c4,000 tonnes in 2043.

Inert Waste Management

1.60 The adopted Kirklees Local Plan, Waste Technical Paper (2017) does not make a commitment to net-self-sufficiency for the management of inert waste. However, applying the objective of net self-sufficiency to this exercise is a useful way of establishing the extent to which the provision of capacity is adequate.

1.61 Inert waste can be managed through two principal routes depending on its nature/composition - recycled to aggregate or soil or deposited for beneficial purposes on land (backfilling by inert landfill and recovery to land). Inert waste is also used for the restoration of non-inert landfills which is considered to be a beneficial use and hence a 'recovery' operation rather than disposal to landfill. The peak annual quantity of inert waste requiring management through recovery of one form or another is c194,000 tonnes as shown in Table 12.

1.62 Table 6 identifies 6 sites within Kirklees reported as producing recycled aggregate[31]. These sites have combined capacity of c226,500 tpa. This is greater than the predicted combined requirement of c194,000 tpa. This also does not take account of capacity at facilities that manage inert waste through permanent deposit to land, as follows:

- **Recovery to Land:** The WDI 2023 reports that 1 site in Kirklees, permitted as a Recovery to Land operation by the EA received waste in 2023. The capacity is unknown and has not been considered further as the site is nearing completion according to Kirklees Council.
- **Inert waste Landfill:** Kirklees has one consented inert waste landfill Wellfield Quarry Landfill identified in Table 8. At the time of writing the assessed remaining capacity equated to c202,500 tonnes of inert waste.

1.63 Therefore, total capacity for inert waste recovery in Kirklees is estimated to be c429,000 tonnes (c226,500 tpa recycled aggregate plus c202,500 tonnes inert landfill in total). Table 16 displays the predicted depletion profile of Wellfield Quarry Landfill using an average of input tonnage to the site over the most recent 5-year period for which data is available (c26,000tpa)[32]. It is assumed that the equivalent tonnage is accepted at

[31] One site with expired permission is awaiting decision on an application to extend time limit as per Footnote 18.

[32] Note the site has only received waste from Kirklees over the past 5 years.

Wellfield Quarry Landfill with the remaining requirement being managed via recycled aggregate sites. Given there is more capacity than requirement, this leads to a surplus of capacity throughout the entire Plan period even when the void at Wellfield Quarry Landfill is exhausted.

Table 16: Predicted Inert Waste Management Capacity in Kirklees (tonnes)
italicised value indicates where annual Kirklees management requirement is less than assessed annual capacity

Year	Annual Inert Waste Management Requirement (Table 12)	Wellfield Quarry Landfill	Recycled Aggregate Capacity (tpa)	Capacity status (tpa)[33]
		202,529	**226,500**	429,167
2025	194,108	176,244	167,823	+235,059
2026	194,108	149,959	167,823	+208,774
2027	194,108	123,674	167,823	+182,489
2028	194,108	97,389	167,823	+156,204
2029	194,108	71,104	167,823	+129,919
2030	194,108	44,819	167,823	+103,634
2031	194,108	18,534	167,823	+77,349
2032	194,108	0	175,574	+51,064
2033	194,108		194,108	+32,530
2034	194,108		194,108	+32,530
2035	194,108		194,108	+32,530
2036	194,108		194,108	+32,530
2037	194,108		194,108	+32,530
2038	194,108		194,108	+32,530
2039	194,108		194,108	+32,530
2040	194,108		194,108	+32,530
2041	194,108		194,108	+32,530
2042	194,108		194,108	+32,530
2043	194,108		194,108	+32,530

Table 16 shows that there is a predicted annual surplus in inert waste recovery capacity of c235,000 tonnes in 2025 reducing to c32,500 tonnes in 2033 after Wellfield Quarry Landfill has been completed. This is not considering potential capacity created by the permitted

[33] Where the capacity status exceeds the annual requirement, it is assumed that the difference being made up of a tonnage of inert waste being imported into Kirklees to supply recycled aggregate production facilities.

mineral extraction at Moor End South, Crosland Moor, Huddersfield mentioned in paragraph 3.25. Furthermore, Table 16 does not include the potential for extension of permission at Carr Hill Quarry to 2027, which if granted would increase recycled aggregate production capacity by 30,000 tonnes for a further 2 years from 2027[34].

Hazardous Waste Management

1.64 The separate hazardous waste report prepared as part of this WNA[35], found that combined capacity offered by facilities within Kirklees dedicated to managing hazardous waste equates to c45,500 tonnes per annum, which is less than the c53,000 tonnes of hazardous waste that arose in Kirklees in 2023.

1.65 The separate hazardous waste report concluded that the continued availability of capacity over the Plan period at those facilities outside Kirklees identified as managing significant quantities of hazardous waste should be confirmed through contact with the host WPAs identified in the Strategic Flows report[36]. This exercise is necessary to ensure that the future management of hazardous waste arising in Kirklees has been planned for through the current DtC plan making requirements.

[34] Additional opportunities may come forward for inert waste management when quarries located in Kirklees enter their restoration phase.

[35] *Kirklees WNA 2025 – Hazardous Waste* BPP Consulting September 2025.

[36] *Kirklees WNA 2025 – Strategic Flows* BPP Consulting September 2025.

Capacity Gap Summary

1.66 The findings from the preceding discussion on potential future waste management capacity gaps in Kirklees are summarised in Table 17 below.

Table 17: Kirklees combined Capacity Assessment & Annual Capacity Gap Analysis (tonnes)

Capacity Type	2028	2033	2038	2043
Recycling & Composting (Table 13)	0	0	0	0
Other Recovery (Table 14)	0	0	0	0
Non-inert Landfill (Table 15)	-13,119	-10,609	-7,147	-3,955
Aggregate recycling/ Recovery to Land (Table 16)	0	0	0	0

Table 17 shows that:

- there is a sufficient capacity to meet the projected recycling/composting requirement through to the end of the Plan period; and
- the predicted annual need for non-inert landfill capacity is reducing over time. Table 15 shows a cumulative shortfall in residual waste management capacity of c183,500 tonnes may arise by the end of the Plan period.
- there is a sufficient capacity to meet the projected 'other recovery' requirement for residual waste through to the end of the Plan period;
- there is a sufficient capacity to meet the projected inert waste recovery requirement through to the end of the Plan period.

1.67 The strategic significance of the identified shortfall in non inert landfill capacity should be assessed in the context of the:

- Government's intention to virtually eliminate the landfilling of all biodegradable waste by 2028[37]; and
- the reduction of municipal waste landfilled to no more than 10% by 2035[38]; and
- the halving of residual waste per head including that sent to landfill by 2042.

[37] https://www.gov.uk/government/consultations/near-elimination-of-biodegradable-waste-to-landfill

[38] As shown in Table 11 the proposed target for non-inert landfill for both LACW & C&I waste streams (from which municipal waste arises) equates to less than 10% of total arisings.

Capacity Assessment Conclusion

1.68 This Waste Management Needs Assessment (WNA) consists of the following documents:

1. Local Authority Collected Waste Assessment of Management Requirements to 2043;
2. Commercial & Industrial Waste Assessment of Management Requirements to 2043;
3. Construction, Demolition & Excavation Waste Assessment of Management Requirements to 2043;
4. Hazardous Waste Assessment of Management Requirements to 2043;
5. Scoping Review of Other Waste - which concluded there was no requirement for the capacity needs of these streams to be considered further in this WNA; and,
6. Review of waste flows.

1.69 The combined consideration of the reports above has found that the existing consented capacity operational within Kirklees is likely to be sufficient to support the Council in meeting its objectives of:

- Seeking to assure that waste produced in Kirklees is managed in accordance with the Waste Hierarchy in priority order by setting ambitious recycling targets; and,
- Achieving net self sufficiency for recycling & composting and other recovery for the Plan period through to 2043.

However, given there are no non-inert landfills in Kirklees there is a predicted shortfall throughout the entire Plan period. To ensure that these objectives are met and to provide management capacity for non-inert waste it will be necessary to:

- Safeguard capacity at existing facilities in Kirklees; and,
- Establish that capacity at facilities outside Kirklees that manage or may manage waste arising in Kirklees will remain available for the Plan period, particularly any non-inert landfills; and
- Depending on the outcome of the above, allocate land to provide for further non-inert landfill capacity.

Appendix 1: Kirklees Intermediate Site Throughput over 5 years reported through WDI tonnes (peak year identified by green cell)

Site Name	Operator	Site counted as	Inputs 2019	Inputs 2020	Inputs 2021	Inputs 2022	Inputs 2023	Plus 15% 'freeboard'
Wilkinson Brothers	J & D Wilkinson	Recycling	87	88	217	1,063	993	1,222
Land/premises At, Clay Lane	Colne Valley Skip Hire	Recycling	3,240	4,025	3,795	3,715	3,210	4,629
West End Mills	C & J Blackburn	Recycling	13,224	12,896	17,938	14,144	15,120	20,629
Headlands Road Depot	Kirklees Council	Recycling	7,993	9,051	21,934	12,102	8,537	25,224
The Reins	Kirklees Council	Recycling	8,865	10,121	20,376	15,374	8,516	23,433
Dewsbury Transfer Station	Biffa G S (M & B) Ltd	Recycling	69,561	52,076	69,829	71,593	76,246	87,683
The Stone Yard	Tiger Skip Hire Ltd	Recycling	4,599	11,160	25,496	27,117	6,261	31,185
Thornhill Integrated Waste Management Facility	Suez Recycling & Recovery Kirklees Ltd	Recycling	98,558	100,627	101,732	92,933	94,557	116,992
Cheap As Skips	David Price	Recycling	7,527	-	-	-	-	8,656
Thornhill Works, Calder Road	Newlay Concrete Ltd	Recycling	17,382	-	-	-	-	19,989
Vine Street MRF	Suez Recycling & Recovery Kirklees Ltd	Recycling	14,142	13,654	17,800	17,678	18,244	20,981
Autowell Motor Factors	Mohammed Akram	MRS	-	-	-	10	-	12
High House Lane	J B Schofield & Sons Ltd	MRS	10,969	9,006	12,254	11,354	9,805	14,092
Milnsbridge Metals Ltd T/A Melarose Metals	Milnsbridge Metals Ltd	MRS	-	-	-	-	5,270	6,061
Black Chapel Lane	Sims Group Uk Ltd	MRS	4,144	833	-	8,173	6,594	9,398
Ravensthorpe Industrial Estate	The Griffiths Group Ltd	MRS	24,500	24,650	24,790	-	-	28,509
Mill Street East Side	K & M Metals Ltd	MRS	1,848	4,659	5,236	5,432	4,696	6,247

Site Name	Operator	Site counted as	Inputs 2019	Inputs 2020	Inputs 2021	Inputs 2022	Inputs 2023	Plus 15% 'freeboard'
Clayton Hall Farm Bioenergy Plant	Clayton Hall Farm Bioenergy Llp	Organic waste treatment	5,821	604	8,125	29,108	47,791	54,960
Bromley Farm	Suez Recycling and Recovery Kirklees Ltd	HWRC	4,526	3,198	4,555	4,033	4,180	5,239
Meltham	Suez Recycling and Recovery Kirklees Ltd	HWRC	7,636	7,027	8,057	7,218	7,611	9,266
Emerald Street	Suez Recycling and Recovery Kirklees Ltd	HWRC	16,485	18,158	26,399	19,409	20,306	30,359
Windy Ridge Quarry	Windy Ridge Recycling Ltd	Recycled aggregate production site (RAPC)	-	-	4,666	6,087	23,865	27,445
Red Doles Lane	Myers Skip Hire Ltd	RAPC	-	-	19,087	24,210	30,782	35,399
Clayfield Works	Bower Skip Hire Ltd	RAPC	9,143	8,567	8,904	9,015	5,327	10,514
Johnsons Wellfield Treatment Plant	Wellfield Quarry, Blackmoorfoot Road	RAPC	-	-	-	-	2,777	3,194
Temple Quarry	Mone Brothers Excavations Ltd	RAPC	7,705	-	70,181	74,136	70,443	85,257
Carr Hill Quarry	PMW Quarries Ltd	RAPC	46,816	25,439	35,129	41,924	31,030	53,838
Bretton Street Rail Depot	Land Recovery Ltd	RAPC	-	1,813	-	-	-	2,085
Unit 10 West End Mills	J T Shingleton & Son	Transfer	4,347	2,821	3,693	4,060	5,183	5,960
Alder Street Depot	Kirklees Metropolitan Council	Transfer	-	7,846	3,980	3,215	4,262	9,023