



Surrey Waste Capacity Need Assessment 2023

Capacity Requirement for the Management of Waste in Surrey to 2042

Report: Final Issue (revised)

Version: v2.2

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Document version control

Version No.	Version Description	Changes made					
2.2	Final Issue Revisions	<p>Table 18 entries amended to reflect incremental depletion of void across life of sites/ Plan period and correct attribution of depletion data (Oxted Quarry and Homefield Farm). Alton Road end date of 2029 added as per Table 9.</p> <p>Consequential amendments made as follows:</p> <p>text in Executive Summary (Page 1), which now reads "<i>...a shortfall in aggregate recycling and recovery to land to emerges <u>in 2027</u></i>"</p> <p>Commentary on Table 18 "<i>Table 18 (stet 19) shows that there is a predicted annual shortfall in inert waste management capacity of between <u>c224,500</u> and c1,219,000 tonnes from <u>2027</u> to the end of the Plan period.</i></p> <p>entries for inert waste management in Table 19</p> <table><tr><td>Aggregate recycling/Recovery to Land (Table 19)</td><td>0</td><td>-857,256</td><td>-957,749</td><td>-1,219,159</td></tr></table> <p>and conclusion (Page 32) which now reads "<i>a shortfall in inert waste recovery capacity of <u>c224,542 tonnes is predicted to arise in 2027 increasing to c 857,256 tonnes in 2031</u> and c1,219,000 tonnes in 2042.</i>"</p>	Aggregate recycling/Recovery to Land (Table 19)	0	-857,256	-957,749	-1,219,159
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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.
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.
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

Term	Definition
	and demolition waste delivered to HWRCs. LACW is the definition used in statistical publications, which previously referred to municipal waste.
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.
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	Waste remaining after materials for re-use, recycling and composting/organic waste treatment e.g. anaerobic digestion has been removed.
The Plan area	The area subject to the Waste Local Plan to which this study relates. In this case the county of Surrey.
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 Surrey County Council.
Waste Planning Authority	The authority responsible for planning for waste within a specific administrative area. In this case Surrey County 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.

Executive Summary

This report presents the outcome of the Waste Capacity Need Assessment (WCNA) undertaken by BPP Consulting with support from Surrey County Council (SCC). This WCNA was produced as part of the evidence base supporting the preparation of the Minerals and Waste Local Plan for Surrey. The WCNA seeks to identify the future need for additional waste management capacity in Surrey to 2042. Future need is assessed by quantifying the principal waste streams arising in Surrey and forecasting the amount of waste that needs to be managed over the Plan period, whilst taking into account the potential contribution existing waste management capacity¹ within Surrey may make.

The WCNA found that a total of 3.3 million tonnes of wastes arose within Surrey in 2021. The quantities of principal categories of waste arising are shown in Figure 1 below:

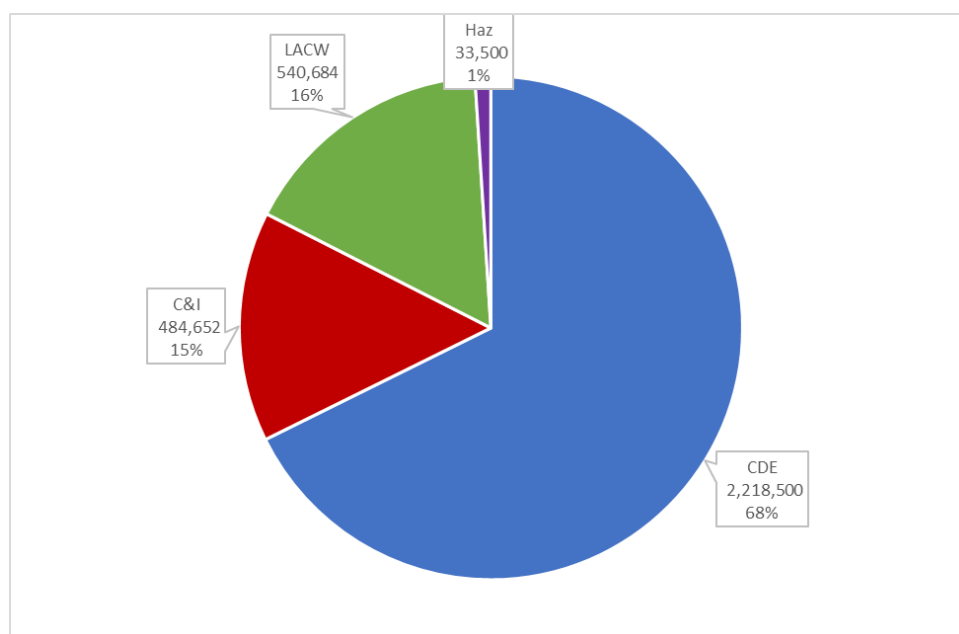


Figure 1: Quantities of Principal Waste Types Arising in Surrey 2021 (tonnes)

The WCNA found that there appears to be insufficient existing consented capacity to meet the needs of the Plan area. While the projected management requirements for recycling/ composting should be met for the entire Plan period, a shortfall in aggregate recycling and recovery to land emerges in 2027 and 'Other Recovery' throughout the entire Plan period. This shortfall is predicted to be exacerbated by a shortfall of non-inert landfill from 2031 due to the expiry of the Patteson Court Landfill permission in 2030. It is therefore recommended that opportunities for utilising capacity outside Surrey be explored further through 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 additional waste management capacity predicted to be needed.

¹ that which is lawful under planning law including consented and lawful development.

1. Purpose

This report presents the outcome of a comprehensive Waste Capacity Need Assessment (WCNA) update undertaken by BPP Consulting with support from Surrey County Council (SCC) Minerals and Waste Policy Teams. This WCNA updates the findings of the 2019 WNA which underpinned the Surrey Waste Local Plan 2019. The WCNA is intended to identify possible shortfalls in waste management capacity that may emerge over the proposed Plan period (to 2042). The WCNA estimates the amount of waste that will require management over the plan period (to 2042), whilst taking into account the contribution of existing waste management capacity to identify future gaps in capacity. This involves first quantifying and characterising the principal waste streams arising in Surrey. This work is undertaken in the context of the National Planning Policy for Waste (NPPW) and the national Planning Practice Guidance (PPG), 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).

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 waste 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);
5. Assess current consented management capacity in Surrey;
6. Quantify future capacity needs accounting for cross boundary movements of waste;
7. Establish any associated future gaps in waste management capacity.

The WCNA consists of the following reports:

1. Local Authority Collected Waste - Assessment of Management Requirements to 2042;
2. Commercial & Industrial Waste - Assessment of Management Requirements to 2042;
3. Construction, Demolition & Excavation Waste - Assessment of Management Requirements to 2042;
4. Hazardous Waste - Assessment of Management Requirements to 2042;
5. Scoping Review of Other Waste Streams²;
6. Review of Waste Flows; and
7. This Summary Report.

A technical report relating to possible land requirements and facility footprints has also been produced as an adjunct to the WCNA.

² This concluded that the capacity needs of these streams need not be considered further in this WCNA.

Principal Data Sources

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

Waste Data Interrogator

Operators of all sites subject to environmental permits relating to the management of waste in England are required to submit returns to the Environment Agency setting out the quantities, types and origin of waste received and, where applicable, destination of waste removed. These returns are collated by the Environment Agency and reported in a national database known as the Waste Data Interrogator (WDI). The WDI is released approximately nine months after the end of the calendar year to which the data relates. The 2021 WDI (version 3 released January 2023), consisting of data for the calendar year 2021, is the most current version available at the time of writing.

Hazardous Waste Interrogator

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 Environment Agency) 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 county council or unitary authority) rather than by receiving site. The latest HWI (HWI 2021) was released in September 2022 and reports data for 2021.

WasteDataFlow

WasteDataFlow (WDF) is a web-based data entry portal used by local authorities in England to report on the management of Local Authority Collected Waste (LACW) in their area to central Government (DEFRA) on a quarterly basis. Following independent quality checking the data is used to report on national LACW recycling and landfill diversion performance. While Councils normally report to WDF in financial years, as the Environment Agency WDI reports on a calendar year basis, the data for Surrey within WDF covering the four quarters of 2021 has been accessed to ensure comparability between datasets.

Quantities of Waste Produced in Surrey

The WCNA update has found that c3.28 million tonnes of wastes arose within Surrey in 2021. The principal components are:

- Construction, Demolition & Excavation: c2,218,500 tonnes
- Commercial & Industrial Waste: c484,500 tonnes
- Local Authority Collected Waste: c540,500 tonnes
- Hazardous Waste: c33,500 tonnes

Quantities of waste arising from agriculture, waste water treatment and non-nuclear radioactive waste management were also reviewed as set out in PPG³ but not found to arise in sufficient quantities to warrant inclusion in the assessment exercise.

³ Paragraph: 031 Reference ID: 28-031-20141016

2. Capacity Assessment Overview

The capacity of waste management facilities in Surrey has been established using data provided by SCC for planning consents combined with a review of data for waste inputs over the past five-years as reported through the annual versions of the WDI (2017-2021).

Examination of these datasets indicates that the following capacity types exist within the Plan area:

- Organic waste treatment (e.g. composting and anaerobic digestion);
- Recycling including Recycled Aggregate Facilities (RAF), Material Recycling Facilities (MRF) and Metal Recycling Sites (MRS);
- Waste Transfer/treatment capacity;
- Energy Recovery; and
- Landfill.

Facilities where waste recycle 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 management development and therefore are not planned for in a waste local plan.

Net Self Sufficiency

Net self sufficiency is an approach applied in waste planning to establish how much capacity should be planned for in each waste Plan area. This follows the polluter pays principle whereby the area that produces the pollution (in this case waste) should be responsible for managing it. 'Net' self sufficiency is applied as waste does not recognise administrative boundaries and so there is no expectation that every tonne of waste produced in Surrey ought to be managed within Surrey, 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 within an area (in this case in Surrey over the Plan period i.e. to 2042).

The degree to which Surrey is net self sufficient is established by comparing the available capacity within Surrey with the projected capacity requirements, which have been determined in the separate waste stream specific reports, to ascertain if there is any gap. The management of any waste by disposal or recovery of mixed municipal waste is subject to the proximity principle which means that it should be managed at one of the nearest appropriate facilities. Such a facility may be located outside a Plan area.

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

Sources of Facility Capacity Data

Facility capacity data has been collated from data provided by SCC of input data presented in the WDI compiled by the Environment Agency over the most recent 5-year period 2017-2021 (See Appendix 1). The 5-year peak input was then calculated on a site-by-site basis. Any sites that did not report any inputs in the most recent 3-years have been excluded and the capacity has not been counted for the purposes of this WCNA. For any sites that managed a significant amount of hazardous waste (greater than 20% of the total peak amount of waste managed) this was deducted from the preferred capacity value, to ensure that hazardous waste management capacity provided by these sites was not compromised.

To allow for the possibility that the peak input value is not an absolute limit, a 20% 'freeboard' was added to the peak input values shown in the WDI. 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.

Where applicable, site capacity based on the planning consents issued by SCC was compared to the peak value +20%. Consented capacity was used in preference to the peak value +20%, unless the peak value +20% deviates significantly (+/- 50%) from the consented capacity. In this case, the peak value +20% has been used as it is considered to provide a more accurate representation of the true operational capacity.

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 existence and in operation is in a constant state of flux, as sites close and new sites come on stream.

Planning Limits

Planning consents issued by SCC have been reviewed where they exist⁴ to identify any capacity limitations relating to annual throughput of waste management facilities. Capacity limitations may be expressed as planning conditions where necessary and relevant to ensure that the impacts (e.g. noise, traffic, air quality etc.) of site operations are controlled to acceptable levels.

However, capacity limitations are usually expressed in terms of a limitation on vehicle movements per day, normally Heavy Goods Vehicles (HGVs). The challenge with this in seeking to deduce the annual capacity of a specific facility is that such conditions necessitate making assumptions about, inter alia, total number of days worked in a calendar year, the peak tonnage of a vehicle payload⁵, and the volume to weight ratio of a range of differing waste materials.

⁴ Some sites such as established scrapyards, may be subject to Certificates of Lawfulness, Established Use Certificates (post 1964) or Existing User Rights (post 1947). These may not specify capacity and even where they do case law indicates they ought only to be regarded as benchmarks and are not equivalent to rigid planning conditions. So, there may be room for some upward flex to the point where the activity can be conducted without it amounting to a material change of use of the land because of the environmental and/or amenity impacts associated with that upward flex.

⁵ In some cases, limitations on vehicle movements can be expressed as an average over a specific period (e.g. week, month, or year) thereby making annual capacity assumptions relying on permitted HGV movements alone more challenging.

General Assumptions

While supporting statements to planning applications may distinguish between number of incoming and outgoing loads, generally conditions themselves only refer to the total number of HGV trips or movements, as it is the HGV movement itself that presents an impact on the locality. Where such conditions apply the following assumptions have been applied:

Number of working days a year can be calculated as follows - 5.5 days a week x 52 weeks a year = 286 days.

The payload of a HGV can vary according to the vehicle type and the nature of waste carried. To calculate a maximum annual tonnage the following payloads have been modelled, noting that gross HGV weights are subject to legal limits.

Payloads for facilities such as Recycled Aggregate Facilities (RAFs) receiving C, D & E waste and C&I waste delivered in skips and grab loaders:

- Contents of skip (incoming) 3-5 tonnes (mean of 4t)
- Contents of grab loader (incoming) 16 tonnes
- Contents of tipper (outgoing) 20 tonnes
- Contents of articulated lorry (outgoing) 25 tonnes

Payloads for facilities such as MRFs managing LACW/ C&I / in Refuse Collection Vehicles (RCVs) or similar via a collection round:

- Contents of RCV (incoming) 10 tonnes
- Contents of articulated lorry (outgoing) 25 tonnes

Modelling a 'worst case scenario' (the smallest vehicle payload within the limit) in terms of annual capacity the lowest value might be taken i.e. 4 tonnes for skip waste and 10 tonnes for RCVs.

However, in reality, for C, D & E waste it is unlikely that only skips would be delivered and therefore an average has been taken across the two vehicle types i.e., 7 tonnes per incoming load.

For intermediate facilities i.e., sites where waste does not meet its final fate, it is important to consider the payloads of outgoing HGVs as well as incoming loads, as it should be assumed that an equal quantity of waste is removed as is delivered over the year. This means that the total number of permitted HGV movements needs to be allocated between incoming deliveries and outgoing removals.

This has been done as follows:

- For a RAF, the average payload for an outgoing HGV is 22.5 tonnes and the average payload for an incoming HGV is 10 tonnes. This gives an output/input ratio of 22.5:10 which equates to c69% of movements being associated with deliveries (which determines the annual input capacity of the facility).
- For a MRF, average payload for an outgoing HGV is 25 tonnes and the average payload for an incoming HGV is 10 tonnes. This gives an output/input ratio of 25:10 which equates to c71% of movements being associated with deliveries (which determines the annual input capacity of the facility).

Where a facility receives both types of delivery i.e. skip and RCV, and there are no restrictions or limitations specific to each of the two waste streams i.e. all inputs could be of one waste type in theory, the lower annual throughput value has been taken.

It has also been assumed that two vehicle movements will be associated with the delivery of a single load or a removal of a single load i.e. there are no return loads⁶.

Worked Example

Below is a worked example using a site that accommodates both a RAF and a MRF with a total number of permitted HGV movements pa of 275 and no restrictions or limitations specific to each of the two waste streams:

The RAF could receive: $275/2$ (movements to loads) - $137 \times 69\% = 95$ incoming deliveries X average payload of a delivering HGV 10 tonnes = 950 tonnes per day x 286 (number of working days in a year) 271,700 tpa.

The MRF could receive: $275/2$ (movements to loads) - $137 \times 71\% = 97$ incoming deliveries. x average payload of a delivering HGV 10 tonnes = 970 tonnes per day x 286 (number of working days in a year) 277,420 tpa.

As the permission HGV limit is non-specific the lower capacity value is taken i.e. 271,700 tpa.

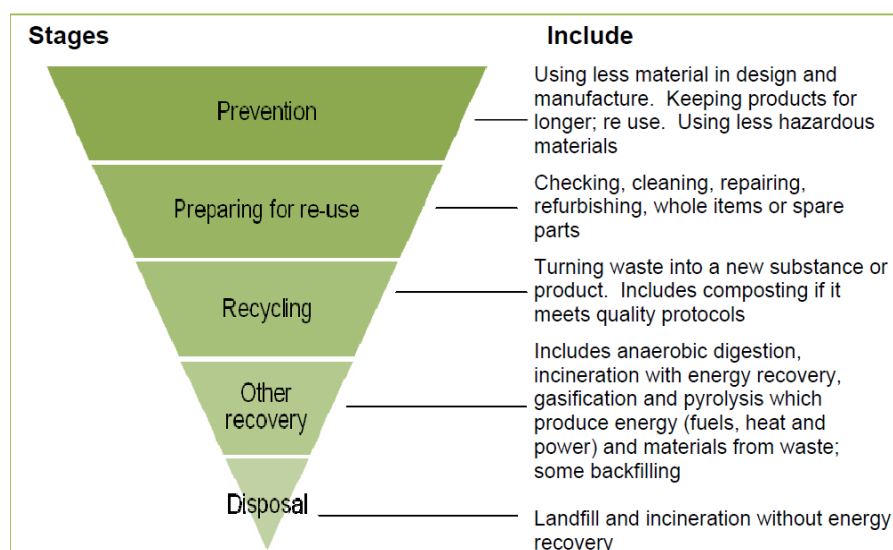
Where planning consents make no reference to capacity limitations or HGV movement limits, the supporting statements provided by the applicant (usually the operator (or agent on behalf)) as part of the planning application can be reviewed. Supporting statements may include the proposed level of waste management capacity contribution to justify the proposal. Similarly, the planning application form associated with contemporary consents normally specify total capacity and/or maximum annual operational throughput of each waste stream proposed to be managed. As planning consents generally include a condition requiring the development to be undertaken in accordance with the details set out in the application (usually expressed per document), the entries in this form may be considered to form part of the consent and binding once implemented.

⁶ Return loads may only generally occur where grab loaders or tippers are delivering, rather than skips. Therefore this assumptions simplifies the calculation and takes a conservative view of capacity.

3. Capacity in Surrey by Management Method

Types of Waste Management Capacity

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.



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Figure 2: Diagrammatic representation of the Waste Hierarchy

It should be noted that under the Waste Framework Directive, recycling, composting and 'other recovery' operations such as Energy from Waste and Anaerobic Digestion are all classed as 'recovery' operations. Hence the use of the term 'other recovery', to cover operations that involve something other than recycling and/or composting. This includes Energy from Waste (EfW) facilities, where waste is burnt to produce power and/or heat, providing they meet a minimum performance standard set out in the R1 formula, and anaerobic digestion plants.

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.

⁷ Guidance on applying the Waste Hierarchy DEFRA June 2011
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69403/pb13530-waste-hierarchy-guidance.pdf

When considering whether a departure from the waste hierarchy would be justified, decision-makers are to base their choices on the findings of Life Cycle Assessments (LCAs)⁸.

Recycling is taken to include any activity that either results in the separation of materials suitable for reuse as a raw material and/or its actual conversion to a product (reprocessing). For the purposes of this capacity assessment exercise, recycling capacity does not include reprocessing capacity where a material such as waste paper is converted into a product such as newsprint as that is a manufacturing process. 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. Recycling capacity can take various forms from depots where source separated recyclable materials are bulked up for onward recycling, to facilities where materials may be separated out on delivery e.g. Household Waste Recycling Centres (HWRCs), through to fully fledged Material Recycling Facilities where complete loads of waste are passed through a processing line to extract and separate materials for recycling.

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)). Open-air composting is only suitable for treating biodegradable waste such as green waste and some cardboard, while IVC can also process putrescible wastes such as kitchen wastes due to the requirements of the Animal By-Products Regulations.

Anaerobic Digestion (AD) involves the decomposition of biodegradable and putrescible matter within a vessel to produce biogas. 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 in some cases. Given that deviation from compliance with the waste hierarchy may be justified by life cycle thinking, it is therefore considered appropriate for AD to be considered alongside composting as an organic waste treatment method that can contribute to meeting recycling/composting targets.

Kitchen and commercial food waste can only be processed in enclosed systems such as in-vessel composting plant (IVC) and AD facilities due to the requirements of the Animal By-Products Regulations.

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

⁸ The way in which the findings of LCAs are relevant to decision making on the application of the hierarchy to waste management has been set out by Government in *Applying the Waste Hierarchy: evidence summary* DEFRA June 2011 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69403/pb13530-waste-hierarchy-guidance.pdf

Recycling Capacity

Table 1 shows the assessment of recycling capacity in Surrey for all non-hazardous waste i.e. inert and non-inert waste excluding MRS.

The listing provided by SCC classes some sites as ‘treatment’ and these have been counted towards providing recycling capacity and are therefore shown in Table 1. Any additional sites that were active in the period 2019-2021 as shown in the WDI not included in the SCC list have also been included in Table 1.

Sites classed as MRF in the WDI have also been included in Table 1. It should be noted that sites classed under the heading 'MRF' in the Agency dataset are not necessarily true MRFs where recyclates such as plastics, metals, paper, cardboard, glass are collected together as DMR undergo sorting and separation into the individual material streams for onward reprocessing/recycling. One of the sites classed as a MRF in the WDI was found to be converting C, D & E waste to recycled aggregate in 2021, with a 50:50 split of C, D & E and C&I type waste accepted in 2021. Therefore, the mass balance value derived from the separate C, D & E waste assessment has been used to account for recycled aggregate capacity in Table 6. This has then been deducted from the peak value +20% to account for the C&I waste management capacity the site offers.

Other Recycling Capacity

Whilst the WDI 2021 included 12 sites under the transfer site category⁹, closer examination of the inputs and fates of the outputs of these sites revealed some separation and processing for recycling takes place. Of these sites, 5 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); 4 sites were found to be managing a significant amount of hazardous waste (>20%) so have been included in the hazardous waste assessment; and 2 sites were found to be undertaking some recycling and so have been included in Table 1 below. Although 1 site appeared to be operating as a transfer station, with the bulk of outputs going to landfill or transfer, detailed consideration of the fate of outputs revealed that the output sent to landfill was all classed as process residues, and had therefore undergone mechanical sorting, while the output sent to transfer actually either went as specific sorted materials such as bricks, or on to sites located in London, from which it was considered most likely would go on for recovery of some sort, rather than disposal to landfill. Therefore, capacity at this site has also been counted as recycling capacity included in Table 1.

⁹ Note that one site has not been included in the capacity assessment as it received less than 100 tonnes in any single year across the 5-year period.

Table 1: Recycling Capacity in Surrey for non-hazardous waste excluding MRSs

Site Name & Operator	Principal Waste Type Managed	Facility Type as per EA WDI	Consented capacity provided by SCC (tonnes p.a.)	Peak Input +20% tonnes (Appendix 1)	Preferred Value (tonnes p.a.)	Notes
Ash Vale WTS, Suez Recycling And Recovery U K Ltd	LACW + C&I	Transfer	30,000	50,734	30,000	Consented capacity taken given it has consent for a MRF and WTS.
Willow Tyres, Raymond Bates	C&I	Transfer	-	1,856	1,856	
Epsom Skip Hire The Chalkpit, Epsom Skip Hire Ltd	C&I	Transfer	15,000	26,304	26,304	
Charlton Lane Eco Park, Suez Recycling and Recovery Surrey Ltd	LACW	¹⁰	125,500	-	125,500	This is the bulking capacity of the materials bulking facility for DMR.
Charlton Lane Eco Park, Suez Recycling and Recovery Surrey Ltd	LACW		10,850	-	10,850	Value taken as recyclables extracted prior to gasification.
Reigate Road Quarry, J & J Franks Ltd		Treatment	35,000	36,643	32,347	2,653 tonnes mass balance deducted from consented capacity as CDEW capacity.
1st Place Skips, Epsom Chalk Pit, W.B. Place	C&I	Treatment	26,000	29,810	26,000	
Unit 10, P M Skip Hire Ltd	C&I	Treatment	-	16,719	16,719	
Former Mushroom Farm, Fisher Recycling Ltd	C&I	Treatment	-	5,208	5,208	
2 Perrylands Lane, P J Brown (Civil Engineering) Ltd	C&I	Treatment	52,707	42,456	52,707	Based on 30 HGV movements in and out per week day and 16 HGV movements in and out per Saturday with limit of 20 tonnes capacity per HGV applied as stated.
Oakleaf Farm, K L T Construction Ltd	C&I	Treatment	-	36,446	36,446	
Mid Surrey Farm, Surrey Green Waste Ltd	C&I	Treatment	2,000	1,649	1,649	
Weylands Treatment Works, Colin Mc Loughlin	C&I	Treatment	-	8,262	8,262	
Yew Tree Nursery, Stonescapes Ltd	C&I	Treatment	-	626	626	
Unit 1, Willetts Cottage, Paul Apps	C&I	Treatment	-	15,793	15,793	Site previously operated by R Exall and Sons
Bluebell Copse, Duncans Groundworks Ltd	C&I	Treatment	15,600	7,020	7,020	
Oakleaf Farm, Drumcastle Ltd	C&I	Treatment	150,000	166,818	-	Temporary consent expired in December 2022.
20-24 Westfield Road, Chambers Waste Management MRF	C&I	MRF	274,560	137,368	61,816	45% inputs in 2021 C&I waste and the remaining 55% CDE waste for the RAF. 45% applied to the

¹⁰ All inputs coded under incineration in the WDI so SCC consented capacity taken.

Site Name & Operator	Principal Waste Type Managed	Facility Type as per EA WDI	Consented capacity provided by SCC (tonnes p.a.)	Peak Input +20% tonnes (Appendix 1)	Preferred Value (tonnes p.a.)	Notes
						peak input value. Peak input value preferred due to 50%+ deviation on planning.
Little Orchard Farm, Britaniacrest Recycling Ltd	C&I	MRF	130,000	299,976	104,522	35% inputs in 2021 C&I waste and the remaining 65% CDE waste for the RAF. 35% applied to the peak input.
Earlswood WTS, Suez Recycling And Recovery Surrey Ltd	LACW	MRF	110,000	115,124	110,000	88% applied to the peak input +20% based on the site operating a Materials Bulking Facility (MBF) and CRC. Split calculated by consented capacity. Consented capacity taken as peak input +20% does not deviate significantly from the consented capacity.
Merrow Highway Depot, Flowline Ltd	LACW	Treatment ¹¹	-	9,174	9,174	
Unit 35, Countyclean Waste Recycling	LACW	Treatment	-	11,678	11,678	
Randalls Road MRF, Grundon Waste Management Ltd	C&I + LACW	MRF	40,000	42,747	40,000	'True MRF' as it is subject to separate Material Facilities Regulations as it separates DMR and is required to sample inputs and outputs to obtain a certain level of recycling.
Homefield Sandpit, Chambers Runfold Plc	CDE + C&I	MRF	-	217,591	147,520	70,071 tonnes mass balance deducted from peak input +20% as CDEW capacity.
Ash Vale WTS, Suez Recycling And Recovery U K Ltd	CDE + C&I	MRF	45,000	50,734	45,000	Consented capacity taken given it has consent for a MRF and WTS.
Total capacity					926,998	

Table 1 shows a total operational recycling capacity in Surrey (excluding MRSs) of **c927,000 tpa**.

¹¹ Sites relate to management of street sweepings which includes treatment by de-watering and onward transfer of solids.

Metal Recycling Capacity (MRS)

Scrap metal principally comes from industrial sources along with demolition and construction activity. End of life vehicles (ELVs) come from all sources including domestic. The WDI shows that in Surrey only one metal recycling site (MRS) and 6 ELV depollution sites (authorised treatment facilities ATF) received waste in 2021, 4 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 on the basis that they will primarily be managing hazardous waste and is accounted for in the separate hazardous waste management requirement report.

Furthermore, the exemption register for exemption T9 (recovering scrap metal) indicated 3 operational sites in Surrey. As exempt facilities do not report waste tonnage received, reference has been made to the estimates included in the original national Reconcile method¹². This estimated sites operating under a T9 exemption may handle 2,500 tpa.

The MRSs and their assessed capacity is shown in Table 2 below.

Table 2: Metal Recycling Capacity in Surrey excluding ELV ATFs

Site Name & Operator	Principal Waste Type Managed	Consented capacity (tonnes p.a.)	Peak Input +20% (tonnes) (Appendix 1)	Preferred Value (tonnes p.a.)	Expiry
Fordwater Trading Estate, Simvic Ltd	CDE + C&I	-	5,402	5,402	-
14 Westfield Road, Guildford Metal Exchange Ltd	-	12,000	-	12,000	-
West View, Kt Recycling Ltd	-	1,000	-	1,000	-
Scrap Yard adjacent to Old Ewhurst Brickworks, Norman Marshall Ltd	-	1,600	-	1,600	-
1 School Hill, T Baker (Junr) Ltd	-	-	-	2,500	2025
Sendholme, Michael Cowan	-	-	-	2,500	2025
3 Old Char Wharf, AMB Metal Recycling Ltd	-	-	-	2,500	2026
Total capacity				27,502	

Table 2 shows a total operational non-hazardous metal recycling capacity in Surrey of c27,500 tpa. When combined with the running recycling capacity of **c927,000** tpa this gives a **total capacity of c954,500 tpa**.

¹² DEFRA, Commercial and Industrial Waste Survey 2009 Final Report (December 2010).

Organic Waste Treatment Capacity

Various types of facility exist for the treatment of organic waste in Surrey ranging from open windrow composting to anaerobic digestion (AD). These are summarised in Table 3, along with additional sites reported by Surrey CC that do not report in the WDI but have planning permissions/permits, together with an assessment of operational capacity.

Table 3: Organic Waste Treatment Capacity in Surrey

Site Name & Operator	Principal Waste Type Managed ¹³	Facility Type	Consented capacity (tonnes p.a.)	Peak Input (Appendix 1)	Preferred Value	Notes
Dunsfold Park AD Facility, D B E Energy Ltd ¹⁴	C&I	AD Facility	-	2,436	25,000	25,000 tonnes as per officer report taken as preferred value
Charlton Lane Eco Park, Suez Recycling and Recovery Surrey Ltd	C&I and LACW	AD Facility	40,000	-	40,000	
Trumps Farm, Severn Trent Green Power	C&I and LACW	AD Facility	48,000	-	48,000	
R H S Garden Wisley, The Royal Horticultural Society	C&I	Open Windrow	-	880	880	
Land at Strawberry Farm, C P Backhurst & Co Ltd	C&I	Open Windrow	-	14,800	14,800	
The Compost Centre, Harrington & Jessup Ltd	C&I	Open Windrow	2,000	6,023	6,023	
Trumps Farm, Envar Composting Ltd.	Green Waste	Open Windrow	26,000	29,234	26,000	Temporary consent to 2027
Three Acres Yard, Advanced Tree Services	Green Waste	-	2,000	-	2,000	
Jury Farm, Evergreen Tree Services (Commercial Groundcare)	Green Waste	-	2,880		2,880	
Elm Nursery, Redwood Tree Services	Green Waste	-	1,000		1,000	
Hillbury Farm, David Caroline	Agricultural	-	971		971	
Swires Farm, Ford Farms Ltd	Agricultural	-	10,000		10,000	
Unit 8 Shawlands Court, Wealden Services	Agricultural	-	590		590	
Total capacity					178,144	

Table 3 shows a total operational organic waste treatment capacity in Surrey of c178,000 tpa. Of this:

- c46,500 tpa dedicated to C&I waste; and
- c166,500 tpa can receive C&I and/or LACW, of which c47,700 tpa may be green waste
- c11,500 tpa can receive agricultural waste

Therefore, there is at least **c166,500 tpa** of capacity that could receive and process biodegradable waste from C&I and LACW sources. When combined with the running recycling capacity of c954,500 tpa this gives a **total combined recycling/composting capacity of c1,121,000 tpa**.

¹³ 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.

¹⁴ SCC advised that operation of the plant had been disrupted by the pandemic and it was undergoing commissioning in May 2022 operating at just below 50% of its target capacity

Household Waste Recycling Centres

In addition, there are 15 household waste recycling centres (HWRCs) (AKA Community Recycling Centres) provided by SCC operated under contract by Suez Recycling And Recovery Surrey Ltd. Three of the CRC sites also host WTS whilst the remaining 12 are solely CRCs.

Their assessed recycling capacities are shown in Table 4.

Table 4: LACW WTS & CRC Capacity in Surrey (tonnes)¹⁵

Site Name	Operational Capacity (tonnes p.a.)	Peak Input +20% (Appendix 1)	Preferred Value	Notes
CRC and WTS	CRC and WTS	CRC and WTS	CRC and WTS	CRC and WTS
Epsom CRC and WTS	75,997	78,774	32,679	43% of operational capacity value taken as recycling at the CRC. 57% taken as WTS in Table 7
Leatherhead CRC and WTS	60,000	73,436	25,702	35% of operational capacity value taken as recycling at the CRC. 62% taken as WTS in Table 7
Guildford CRC & WTS	150,000	159,373	78,000	52% of the operational capacity value taken as recycling at the CRC. 48% taken as WTS in Table 7
Total			136,381	
CRC only	CRC only	CRC only	CRC only	
Warlingham CRC	3,500	2,276	3,500	
Bourne Mill CRC	-	4,846	4,846	
Caterham CRC	7,000	4,409	7,000	
Lyne CRC	12,000	8,085	12,000	
Martyrs Lane CRC	17,000	12,977	17,000	
Nanhurst Civic Amenity Site	-	3,257	1,885	
Dorking CRC	7,499	3,635	7,499	
Bagshot CRC	6,000	2,803	6,000	
Witley CRC	17,000	8,839	17,000	
Camberley CRC	13,000	9,610	13,000	
Charlton Lane Eco Park	22,000	-		
Earlswood CRC	16,000	15,879 ¹⁶	22,000	
Total Capacity			111,730	

As the majority of the inputs (c90%) segregated on site go on for recycling or composting at the CRCs, 90% of the capacity of these sites has been counted at the sites that have only CRC on site as contributing towards the overall recycling capacity, with 10% toward transfer (of residual LACW).

¹⁵ Given the CRC's are under the control of SCC, where the consented capacity is greater, this value has been taken as the preferred value.

¹⁶ 12% applied to the peak input +20% based on the site operating a MRF and CRC. Split calculated by consented capacity.

Applying the assessed recycling (90%) and transfer (10%) capacity to the total capacity for the CRCs in Table 4 gives c100,500 tpa recycling and c11,000 tpa transfer capacity (for residual waste). This gives a total for LACW recycling at the CRCs of c237,000 tonnes (100,557 tonnes + 136,381 tonnes).

When combined with the running recycling capacity of c1,121,000 tpa this gives a **total combined recycling/composting capacity of just over 1.358 million tonnes pa** as shown in Table 5.

Table 5: Combined Recycling/Composting Capacity in Surrey

Capacity Type	Assessed capacity (tpa)
Recycling (All waste types)	926,998
Metal Recycling (C&I + CDEW)	27,502
Organic Waste Treatment (LACW + C&I)	166,583
HWRC (LACW Recycling)	236,938
Total	1,358,021

Recycled Aggregate Facilities

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 provided by SCC, declared capacity in the LAA and peak input +20%.

Table 6: Recycled Aggregate Facilities in Surrey cross checked with declared capacity in LAA

Site Name & Operator	Consented capacity (tonnes p.a.)	LAA 2021	Peak Input +20% (Appendix 1)	Preferred value	Term
Stanwell Quarry, Cappagh Public Works Ltd	80,800	164,500	260,034	260,034	2027
Homefield Sandpit, Chambers Runfold Plc	-	217,500	217,591	70,071 ¹⁷	2030
Queen Mary Quarry, Brett Aggregates Ltd	50,000	200,000	6,743	6,743	2033
Mercers South Quarry, J & J Franks Ltd	75,000	-	-	75,000	2035
Little Orchard Farm, Britaniacrest Recycling Ltd	130,000	300,000	299,976	195,448 ¹⁸	Permanent
Clasford Bridge, John Gunner And Company Ltd	62,500	-	26,865	26,865	Permanent
Kill Copse, Willinghurst Estate, Guildford Tipper Hire Ltd	16,500	16,500	11,040	16,500	Permanent
Reigate Road Quarry, J & J Franks Ltd	35,000	-	36,643	2,653 ¹⁹	Permanent
Westfield Road, Chambers Waste Management Plc	274,560 ²⁰	-	137,368	75,552 ²¹	Permanent
Haysbridge Farm, EGAP Recycling Ltd	50,000	-	41,503	41,503	Permanent
Ellerton Yard, DJ Grab Services Ltd	-	-	90,908	90,908	Permanent
Molesey Road, Weylands Treatment Works Ltd	-	-	48,025	48,025	Permanent
Unit 2 Plough Industrial Estate, D & E Roberts Ltd	138,138	46,000	45,919	45,919	Permanent
Normans Corner, R S Etherington Ltd	33,000	33,000	11,966	11,966	Permanent
Total Capacity				967,189	
Sites with Expired Consents for which permission is being sought					
<i>Hithermoor Quarry, Brett Aggregates Ltd</i>	<i>250,000</i>	<i>250,000</i>	<i>367,393</i>	<i>250,000</i>	<i>RAF required to cease by 2021. However, proposal to retain RAF for some 16-years has been submitted to SCC.</i>
<i>Addlestone Quarry, Cappagh Public Works Ltd</i>	<i>200,200²²</i>	<i>100,000</i>	<i>261,937</i>	<i>200,200</i>	<i>Consent expired in 2020. However, there is a proposal to retain RAF until 2027 or 2029.</i>

Table 6 shows a total assessed operational recycled aggregate production capacity in Surrey of **c967,000 tpa in 2021, which reduces to c555,500 tpa at the end of the Plan period due to closure of sites with temporary permissions.** This assessment does not account for the two sites subject to live applications at the time of writing.

¹⁷ Mass balance value taken as 50% inputs in 2021 were found to be C&I waste accounted for in Table 1.

¹⁸ 35% inputs in 2021 C&I waste and the remaining 65% CDE waste for the RAF. 65% applied to the peak input.

¹⁹ Mass balance value taken as the site operates as a MRF which receives skip waste accounted for in Table 1.

²⁰ Based on 275 HGV movements to and from the site per day.

²¹ 45% inputs in 2021 C&I waste and the remaining 55% CDE waste for the RAF. 55% applied to the peak input.

²² Based on 200 HGV movements to and from the site per day.

Waste Transfer Capacity

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 disposal.

The one true transfer station offering **c19,500 tpa of capacity** is the Works Depot operated by Amey L G Ltd along with the WTSs capacity provided for LACW management (shared with CRC). These are listed in Table 7 below.

Table 7: Transfer Capacity in Surrey (tonnes)

Site Name + Operator	Operational Capacity (tonnes p.a.)	Peak Input +20% (Appendix 1)	Preferred Value	Notes
Epsom CRC and WTS, Suez Recycling and Recovery Surrey Ltd	75,997	78,774	43,318	57% applied to the operational capacity as WTS
Leatherhead CRC and WTS, Suez Recycling and Recovery Surrey Ltd	60,000	73,436	37,200	62% applied to the operational capacity as WTS
Guildford CRC & WTS, Suez Recycling and Recovery Surrey Ltd	150,000	159,373	72,000	48% applied to the operational capacity as WTS
Works Depot, Amey L G Ltd	-	19,259	19,259	
Total Capacity			171,777	

Table 7 shows that there is c172,000 tonnes of transfer capacity in Surrey.

Final Fate Capacity

The types of facilities explored thus far provide ‘intermediate’ capacity where waste is processed/ sorted before being transported on for management at its final destination, or ‘final fate’ management. 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 recycle). This includes landfill and recovery to land sites.

Landfill Capacity

There are 2 types of landfills operating in Surrey:

- Non-hazardous Waste Landfill with a Stable Non-Reactive Hazardous Waste (SNRHW) Cell
- Inert Waste Landfill

Non-hazardous Waste Landfill: void space vs tonnage

Each landfill's remaining capacity has been determined by reference to the Environment Agency annual remaining landfill void dataset which is expressed as m³ available at the end of 2021. However, the mass of waste does not necessarily directly correspond to its volume i.e. 1 tonne of waste does not necessarily occupy 1 cubic metre of airspace/void. The assessed landfill void requirement therefore needs to account for the density of different wastes under consideration.

For the purposes of this exercise, it has been assumed that 1.5 tonnes of inert waste can be accommodated within one cubic metre of void, while a single tonne of non-inert residual waste may be accommodated within one cubic metre of void²³. It is also assumed that at least 15% of the input to a non-inert landfill will be inert waste used for operational and restoration purposes as all such sites will have such a requirement and so this is counted towards inert waste management capacity. The tonnage of inert waste used for restoration purposes is taken to be recovery as it involves the use of the waste for beneficial purposes.

²³ This latter value is greater than that of 0.85t/m³ applied in the past, as very little untreated 'black bag' waste is now sent direct to landfill, most if not all will have undergone some pre-treatment (as required by the Landfill Directive), making it denser than untreated mixed non-inert waste.

Non-Hazardous Waste Landfill Capacity

The separate hazardous waste report²⁴ included an assessment of the amount of management capacity offered by both the landfill and soil treatment facility located at Patteson Court. The capacity offered at the sole operational non-hazardous waste landfill site in Surrey is shown in Table 8.

Table 8: Remaining landfill void space at Non- Hazardous Waste Landfill in Surrey

Site Name	Expiry Date	Facility Type Description	Type of waste (WDI 2020)	EA data end of 2021 permitted Void space (m^3)	End of 2021 capacity (tonnes)	Notes
Patteson Court Landfill., Biffa Waste Services Ltd	2030	Non-Haz + SNRHW Cell	CDE + C&I + Haz	2,211,470	1,747,061 for non-inert 298,548 for inert 265,376 for haz	Inert: $199,032m^3 \times 1.5 = 298,548t$ inert waste input for restoration.
Total					2,310,985	

Table 8 shows that there is 2,311,000 m^3 of consented void at non-hazardous waste landfill in Surrey offering the following final fate capacity:

- Non-inert waste: c1,747,000 tonnes
- Inert waste: c298,500 tonnes
- Hazardous waste: c265,500 tonnes (in SNRHW cell)

²⁴ BPP Consulting Surrey WCNA 2022 Hazardous Waste Management Requirements

Inert Waste Landfill Capacity

Details of the 8 operational inert waste landfill sites²⁵ in Surrey are set out in Table 9.

Table 9: Consented/ Operational Inert Waste Landfill in Surrey

Site Name	Expiry Date	Permitted void space end of 2021 EA data (m ³)	End of 2021 capacity (m ³ x 1.5)
Stanwell III Landfill, Cappagh Public Works Ltd	2027	101,154	151,731
Oxted Quarry Landfill, Southern Gravel Ltd	2042	1,896,543	2,844,815
Homefield Landfill, Chambers Runfold Plc	2042	974,652	1,461,978
Alton Road Sand Pit, Earthline Ltd	2029	2,080,000	3,120,000
Watersplash Farm, CEMEX UK Materials Ltd	2026	680,000	1,020,000
	Total	5,732,349	8,598,524
Capacity not counted			
Reigate Road Quarry, J & J Franks Ltd	2023	25,000	Permission expired
Laleham Landfill, Brett Aggregates Ltd	2042	900,000	SCC advised that void should not be counted
Horne Grange Polo Fields, T J S Services Ltd		210,000	SCC advised that void should not be counted as it has a permission granted by the District (Ref. TA/2017/1576) and operates as a Cl:aire DoW CoP scheme which does not involve 'waste
Addlestone Quarry	2022	189,460 tonnes	Proposal for time extension

Table 9 shows that there is c5,732,500m³ of consented inert landfill void in Surrey offering c8,598,500 tonnes of inert waste final fate management capacity.

²⁵ Generally, such schemes are considered as 'recovery' from a planning perspective as they provide for restoration of the landfill and a beneficial after use of the land. However, the Environment Agency may class such sites as landfills for permitting purposes.

Recovery to Land Capacity

The WDI 2021 reports that 4 sites in Surrey, permitted as a Recovery to Land operation by the Environment Agency received waste in 2021. Furthermore, SCC advised three further recovery to land operations have recently been granted planning permission, these along with the WDI sites are listed in Table 10. The capacity is only known for one site which provides c118,000 tpa until 2024, the remaining sites total capacity is unknown.

Table 10: Recovery to Land Sites and known void space and expiry dates

Site Name	Operator	Void space (m ³)	Capacity (tonnes)	Expiry
South Godstone Quarry	Blockade Services Ltd	-	354,000 ²⁶	2024
Runfold Central Area	Suez Recycling and Recovery UK Ltd	166,000	249,000	2025
Mercers Quarry	J&J Franks Ltd	150,000	225,000	2035
Auclaye Brickworks	Norman Marshall Ltd	440,000	660,000	2042
Cranleigh Brick and Tile	Rural Arisings Ltd	496,000	744,000	_27
Total		1,252,000	2,232,000	

At the time of writing there is a proposal at Clockhouse Quarry operated by Hanson Building Products for the backfilling of the quarry void of 740,000m³ over 10 years which has yet to be determined. Table 9 shows that there is over 1,252,000m³ of consented recovery to land void in Surrey offering c2,232,000 tonnes of inert waste management final fate capacity.

Combining the totals of the c298,500 tonnes of capacity for inert waste required for restoration of the Patteson Court Landfill c8,598,000 tonnes at the inert waste landfills and the c2,232,000 tonnes offered by the recovery to land sites gives a **total final fate management capacity for the permanent deposit to land of inert waste in Surrey of at least c11,128,500 tonnes.**

‘Other Recovery’ Capacity

There is one operational EfW facility in Surrey, the gasification plant located at Charlton Lane. Whilst up to c55,500 tonnes can be received at the facility, this reduces down to c44,500 tonnes following pre-treatment to extract recyclables²⁸. Given this is provided and operated under contract to SCC, it is taken that this capacity will be utilised to process LACW only.

²⁶ Based on 118,000 tpa for three years to closure.

²⁷ No expiry date specified.

²⁸ The c11,000 tonnes of recyclables extracted has been included as recycling capacity in Table 1.

Capacity Summary

Intermediate Site Capacity

Table 11 shows a summary of operating capacity of the different type of facilities investigated.

In 2021, capacity for managing waste at intermediate sites in Surrey totalled **c2.54 Mtpa**.

Table 11: Intermediate Waste Management Capacity in Surrey

Capacity Type	Assessed capacity		
	Non-inert waste		Inert waste
	Recycling	Transfer (without recycling)	Recycling
Other Recycling (Table 1)	927,000	-	-
Metal Recycling (Table 2)	27,500	-	-
Organic Waste Treatment (Table 3)	166,500	-	-
CRC Recycling (Table 4)	237,000	-	-
CRC Transfer (Table 4)	-	38,000	-
Recycled Aggregate (Table 6)	-	-	967,000
Waste Transfer (Table 7)	-	172,000	-
Total	1,359,000	210,000	967,000

Final Fate Capacity

Table 12 sets out a summary of final fate capacity in Surrey.

Table 12: Remaining Final Fate Waste Management Capacity in Surrey (tonnes)

Capacity Type	Assessed capacity			
	Non-inert waste		Inert waste	Hazardous Waste
	Disposal	Other Recovery	Recovery (restoration)	Disposal
Non-hazardous Waste Landfill with SNRHW cell	1,747,000		298,500	265,500
Inert Waste Landfill			8,598,500	
Recovery to Land			2,232,000	
Other Recovery		44,500		
Total	1,747,000	44,500	11,129,000	265,500

4. Assessing the Capacity Gap in Surrey

Waste Management Requirements

The proposed targets generated in the background waste stream specific assessments, are presented together in Table 13 below.

Table 13: Proposed Targets

		Actuals	Targets at Plan milestone years			
		2021	2026	2031	2036	2042
Recycling/Organic Waste Treatment	LACW	55%	≥65%	≥70%	≥75%	≥75%
	C&I	77%	≥80%	≥80%	≥80%	≥80%
	CDEW	19%	16%	18%	19%	20%
Residual waste Other Recovery	LACW	37%	34%	28%	24%	24%
	C&I	13%	12%	14%	16%	18%
Residual waste Non-Inert Landfill	LACW	8%	≤5%	≤2%	≤1%	≤1%
	C&I	10%	≤8%	≤6%	≤4%	≤2%
	CDEW	6%	4%	2%	1%	0%
Aggregate recycling/ Recovery to Land and Recovery in Landfill	Inert CDE	75%	80%			

The management requirements for waste forecast to be produced in Surrey are set out in Table 14. The progression to the target milestones is compared with the baseline value for 2021.

Table 14: Forecast Waste Management Requirements in Surrey at Plan Milestone years

↓ indicates dropping over Plan period; ↑ indicates rising over Plan period

		Measured Baseline (Actuals)	Forecast Waste Management Requirements (Tonnes at Plan Milestone)					Peak or Cumulative Capacity (landfill - underlined) Requirement (tonnes)
		2021	2026	2031	2036	2042		
Recycling/Organic Waste Treatment	LACW	294,143	343,419	361,193	377,732	366,620	377,732	↑
	C&I	374,723	417,145	446,569	475,993	511,302	511,302	↑
	CDEW	417,351	354,928	399,294	421,477	443,660	443,660	↑
	Total	1,086,217	1,115,492	1,207,056	1,275,202	1,321,582		
Residual waste Other Recovery	LACW	196,094	179,635	144,477	120,874	117,318	179,635	↓
	C&I	61,183	62,572	78,150	95,199	115,043	115,043	↑
	Total	257,277	242,207	222,627	216,073	232,361		
Residual waste Non-Inert Landfill	LACW	45,519	26,417	10,320	5,036	4,888	<u>277,832</u>	
	C&I	48,746	41,715	33,493	23,800	12,783	<u>601,825</u>	
	CDEW	134,950	88,732	44,366	22,183	0	<u>931,690</u>	
	Total	229,215	156,864	88,179	51,019	17,671	<u>1,811,347</u>	
Aggregate recycling/ Recovery to Land and Recovery in Landfill	Inert CDE	1,666,001	≥1,774,642					-

How the waste management capacity requirements identified in Table 14 above might be met is discussed below.

Recycling & Composting Waste Management

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.

When the total assessed management capacity for recycling and composting of c1,359,000 tpa shown in Table 11 (reduces to c1,351,500 tonnes in 2026 due to the expiry of the T9 exemptions and reduces further to c1,325,500 by 2031 due to the expiry of the Trumps Farm composting site permission in 2027) is compared with the estimated combined recycling and composting requirement as shown in Table 14, it can be concluded that sufficient capacity exists to meet the recycling requirement through the whole Plan period as shown in Table 15.

It should however 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 waste²⁹, dry mixed recyclables and glass - from all homes and business premises. If materials are not separated at source, then they may require processing through a MRF before going on for recycling.

Table 15: Surrey Waste Recycling/Composting Capacity Requirement at Plan Milestone years
Source: Table 11 & 14

	Tonnes at Plan Milestone				Peak Requirement (tonnes)
	2026	2031	2036	2042	
Recycling /Composting Requirement	1,115,492	1,207,056	1,275,202	1,321,582	1,321,500
Plan Area Capacity	1,351,283	1,325,283	1,325,283	1,325,283	
Shortfall	+235,791	+118,227	+50,081	+3,701	

²⁹ The Government has since deferred the scheme for separate food waste collections from October 2024 - 2025.

Residual Waste Management

Surrey Residual Waste Landfill Capacity

While there is no obligation in national planning policy for Surrey to achieve net self-sufficiency for non-inert waste management alone throughout the Plan period, the management of mixed municipal waste by disposal or recovery is subject to the proximity principle and hence consideration has been given to the sufficiency of the remaining consented non-inert landfill capacity within the county. 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 basis³⁰. Table 16 below shows the predicted depletion profile of non-inert landfill void in Surrey as the projected combined residual non-inert waste landfill requirement is met. The depletion profile takes account of the expiry of the Patteson Court Landfill permission in 2030, after which no further non-inert landfill capacity is anticipated to be available for the rest of the Plan period.

Table 16: Predicted Depletion of Patteson Court void for Surrey Non-Inert Waste (tonnes)

Source: Tables 14 and 15

NB: Orange cell indicates expiry date of current permission

Year	Annual Non-inert Landfill Requirement ³¹	Remaining Capacity for Non-inert	Cumulative Shortfall
		1,747,000	
2023	200,291	1,546,709	0
2024	185,830	1,360,879	0
2025	171,369	1,189,510	0
2026	156,908	1,032,602	0
2027	143,166	889,436	0
2028	129,425	760,011	0
2029	115,683	644,328	0
2030	101,942	542,386	0
2031	88,201	-	-88,201
2032	80,766	-	-168,967
2033	73,332	-	-242,299
2034	65,898	-	-308,198
2035	58,464	-	-366,662
2036	51,030	-	-417,692
2037	45,470	-	-463,162
2038	39,910	-	-503,073
2039	34,350	-	-537,423
2040	28,791	-	-566,214
2041	23,231	-	-589,445
2042	17,671	-	-607,115

Table 16 shows that Patteson Court Landfill is predicted to close under its current consent before reaching capacity in 2030. This results in a predicted cumulative deficit of c607,000 tonnes of non-inert waste to landfill capacity at the end of the Plan period. Were the site life to be extended, it could accommodate a further 542,386 tonnes lasting to 2039/40 at the forecast depletion rate.

³⁰ Waste Management Plan for England (DEFRA, January 2021)

³¹ Includes C&I, C, D & E and LACW residual waste (Table 14)

Surrey Residual Waste ‘Other Recovery’ Capacity

Given the limited capacity provided by the Charlton Lane gasification plant, a deficit of capacity is predicted through the Plan period. The estimated peak deficit is c197,500 tonnes shown in Table 14 in 2026 reducing to c188,000 tonnes at the end of the Plan period as shown in Table 17 below.

Table 17: Surrey Waste ‘Other Recovery’ Capacity at Plan Milestone years

Source: Table 14

	Tonnes at Plan Milestone				Peak Requirement (tonnes)
	2026	2031	2036	2042	
Other Recovery	242,000	222,500	216,000	232,500	242,000
Plan Area Capacity	44,500	44,500	44,500	44,500	
Shortfall	-197,500	-178,000	-171,500	-188,000	

It should be noted that the actual scale of the shortfall in capacity will be profoundly affected by the introduction of legally binding target to halve residual waste by 2042 set out in The Environmental Targets (Residual Waste) (England) Regulations 2023, that came into force on 30 January 2023. As recognised in the most recent National Infrastructure Assessment released by the National Infrastructure Commission³², this is expected to put a brake on the need for further EfW capacity development in England in the medium to long term.

³² The Second National Infrastructure Assessment National Infrastructure Commission (October 2023).

Inert Waste Management

The adopted Surrey Waste Local Plan (2020) 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.

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 c1,774,500t as shown in Table 14.

Table 6 identifies 17 sites within Surrey reported as producing recycled aggregate. These sites have combined capacity of c1,417,500 tpa. This is less than the combined requirement of c1,774,500 tpa. However, this does not take account of capacity at facilities that manage inert waste through permanent deposit to land.

Surrey has several consented inert waste landfills identified in Table 10 with various expiry dates throughout the Plan period. At the time of writing the assessed remaining capacity equated to c8,598,500 tonnes of inert waste. Furthermore, c298,500 tonnes of capacity for inert waste to complete the restoration of the Patteson Court Landfill has been identified until 2030 as shown in Table 8 and at least c2,232,000 tonnes capacity at the recovery to land sites. Therefore, total management capacity is estimated to be c12,546,500 tonnes (c1,417,500 tpa recycled aggregate plus c298,500 tonnes non-inert landfill with SNRHW cell plus c8,598,500 tonnes inert landfill plus c2,232,000 tonnes recovery to land site) for Surrey's inert waste arisings at 2021. However, this does not take into account expiry dates for some of the temporary recycled aggregate sites and inert landfills plus depletion of capacity at permanent deposit to land facilities. Table 19 below displays the predicted depletion of landfill void offering inert capacity in Surrey with deduction of the projected inert waste requiring management. The depletion profile accounts for the expiry of Patteson Court landfill's permission and the recycled aggregate sites as well as the capacity offered by the recovery to land site.

Note that it has been assumed that a greater fill rate would occur for sites with a shorted consented life to ensure they are completed before the planning permission expires.

Table 18: Predicted Inert Waste Management Capacity in Surrey (tonnes)
Blue cells indicate expiry dates

Year	Annual Inert Waste Management Requirement	Capacity Recycled Aggregate Facility Capacity	Capacity Recovery to Land	Capacity Patteson Court Landfill	Capacity Stanwell Quarry	Capacity Alton Road	Capacity Oxted Quarry	Capacity Homefield Landfill	Capacity Laleham Landfill	Shortfall
Starting capacity				298,500	151,731	3,120,000	2,844,815	1,461,978	1,350,000	
2023	1,774,500	967,189	1,073,813	255,857	113,798	2,600,000	2,695,088	1,385,032	0	322,125
2024	1,774,500	967,189	889,626	213,214	75,866	2,080,000	2,545,361	1,308,086		204,125
2025	1,774,500	967,189	829,939	170,571	37,933	1,560,000	2,395,634	1,231,139		73,425
2026	1,774,500	967,189	770,253	127,929	0	1,040,000	2,245,907	1,154,193		73,425
2027	1,774,500	707,155	710,566	85,286		520,000	2,096,179	1,077,247		-224,542
2028	1,774,500	707,155	650,879	42,643		0	1,946,452	1,000,301		-224,542
2029	1,774,500	707,155	591,192	0			1,796,725	923,355		-744,542
2030	1,774,500	637,084	531,505				1,646,998	846,408		-857,256
2031	1,774,500	637,084	471,818				1,497,271	769,462		-857,256
2032	1,774,500	637,084	412,132				1,347,544	692,516		-857,256
2033	1,774,500	630,341	352,445				1,197,817	615,570		-857,799
2034	1,774,500	630,341	292,758				1,048,090	538,623		-863,999
2035	1,774,500	555,341	251,821				898,363	461,677		-957,749
2036	1,774,500	555,341	210,884				748,636	384,731		-957,749
2037	1,774,500	555,341	169,947				598,908	307,785		-957,749
2038	1,774,500	555,341	129,011				449,181	230,839		-957,749
2039	1,774,500	555,341	88,074				299,454	153,892		-957,749
2040	1,774,500	555,341	47,137				149,727	76,946		-957,749
2041	1,774,500	555,341	6,200				0	0		-957,749
2042	1,774,500	555,341	0							-1,219,159

Table 18 shows that there is a predicted annual shortfall in inert waste management capacity of between c224,500 and c1,219,000 tonnes from 2027 to the end of the Plan period.

Hazardous Waste Management

The separate hazardous waste report, prepared as part of this WCNA, found that combined capacity offered by facilities within Surrey dedicated to managing hazardous waste equates to at least c11,000 tonnes per annum, which is a less than the c33,500 tonnes hazardous waste that arose in Surrey in 2021. However, Surrey also has c265,500 tonnes of disposal capacity for hazardous wastes at Patteson Court to 2030 which could provide capacity until 2043 (if the permission was to be extended.)

The separate hazardous waste report concluded that the continued availability of capacity over the Plan period at those facilities outside Surrey identified as managing significant quantities of hazardous waste should be confirmed through contact with the host Waste Planning Authorities identified in that report. This exercise is necessary to ensure that the future management of hazardous waste arising in Surrey has been planned for through the current Duty to Cooperate plan making requirements.

5. Capacity Gap Summary

The findings from the preceding discussion on potential future waste management capacity gaps in Surrey are summarised in Table 19 below.

Table 19: Surrey combined Capacity Assessment & Annual Capacity Gap Analysis

Capacity Type	Waste Management Capacity Gap (Tonnes at Plan Milestones)			
	2026	2031	2036	2042
Recycling & Composting (Table 15)	0	0	0	0
Non-inert Landfill (Table 16)	0	-88,201	-51,030	-17,671
Other Recovery (Table 14)	-197,500	-178,000	-171,500	-188,000
Aggregate recycling/ Recovery to Land (Table 19)	0	-857,256	-957,749	-1,219,159

Table 19 shows that:

- there is a sufficient capacity to meet the recycling/composting requirement through to the end of the Plan period; and
- from 2031 there is a predicted shortfall in non-inert landfill. This results in a cumulative shortfall in residual waste management capacity of c607,000 tonnes to the end of the Plan period. It should also be noted that if the planning permission expiry date related to the Patteson Court Landfill permission was to be extended beyond 2030, then sufficient non-inert waste management capacity would be provided until 2039/40 leaving c50,000 tonnes of waste requiring alternative management to the end of the Plan period.
- Even when considering capacity at the gasification facility at Charlton Lane Eco Park there is a predicted shortfall in 'other recovery' capacity throughout the Plan period. This reduces when considering the Environment Act Target of 50% reduction in residual waste by 2042.
- a shortfall in inert waste recovery capacity of c224,542 tonnes is predicted to arise in 2027 increasing to c 857,256 tonnes in 2031 and c1,219,000 tonnes in 2042.

6. Capacity Assessment Conclusion

This Waste Management Needs and Infrastructure Capacity Assessment (WCNA) consists of the following documents:

1. Local Authority Collected Waste Assessment of Management Requirements to 2042;
2. Commercial & Industrial Waste Assessment of Management Requirements to 2042;
3. Construction, Demolition & Excavation Waste Assessment of Management Requirements to 2042;
4. Hazardous Waste Assessment of Management Requirements to 2042;
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 WCNA; and,
6. Review of waste flows.

The combined consideration of the reports above has found that the existing consented capacity within Surrey is insufficient to meet the predicted requirements on the following basis:

- **a shortfall for non-inert landfill forecast from 2031 to the end of the Plan period,**
- **a shortfall in Other Recovery capacity for non-inert waste for the whole Plan period,**
and
- **a shortfall for inert waste management capacity forecast to arise from 2031.**

To ensure that these objectives are met it will be necessary to:

- Safeguard capacity at existing facilities in Surrey; and,
- Establish if capacity at facilities outside Surrey that manage waste arising in Surrey will remain available for the Plan period; and
- Depending on the outcome of the above, allocate land to provide for Other Recovery capacity for non-inert waste, recovery capacity for inert waste either in the form of recycling facilities or permanent deposit to land and the possible provision of further non-inert landfill capacity.

It should be noted that the existence of consented capacity does not necessarily mean that it would actually manage LACW arisings or is located in an optimal place to do so. Therefore, there may be an identified need for additional facilities to serve the LACW contract over and above that identified. Such a need would be expected to be identified in any update to the Municipal Waste Management Strategy.

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

Site Name	Operator	Site Category	Inputs 2017	Inputs 2018	Inputs 2019	Inputs 2020	Inputs 2021	Plus 20% 'freeboard'
Ash Vale WTS	Suez Recycling and Recovery U K Ltd	Recycling	42,096	42,278	38,487	38,807	39,766	50,734
Willow Tyres	Raymond Bates	Recycling	-	1,547	758	314	1,435	1,856
The Chalk Pit	One Waste Clearance Ltd	Recycling	9,558	7,348	2,660	3,440	21,920	26,304
1st Place Skips, Epsom Chalk Pit	Brian William Place	Recycling	17,732	24,842	2,660	3,440	21,920	29,810
Unit 10	P M Skip Hire Limited	Recycling	13,932	11,504	8,674	9,080	7,809	16,719
Former Mushroom Farm	Fisher Recycling Ltd	Recycling	-	757	-	3,372	4,340	5,208
2 Perrylands Lane	P J Brown Civil Engineering Ltd	Recycling	35,380	32,274	16,415	-	7,755	42,456
Oakleaf Farm	K L T Construction Ltd	Recycling	-	-	30,371	-	5,632	36,446
Mid-Surrey Farm	Surrey Green Waste Ltd	Recycling	1,152	1,115	1,124	924	1,374	1,649
Weylands Treatment Works	Colin Mc Loughlin	Recycling	-	6,885	-	-	4,995	8,262
Yew Tree Nursery	Stonescapes Ltd	Recycling	-	-	250	100	522	626
Unit 1, Willetts Cottage	Paul Apps	Recycling	-	-	1,839	4,011	13,161	15,793
Bluebell Copse	Duncans Groundworks Ltd	Recycling	5,850	3,120	90	160	-	7,020
20-24 Westfield Road	Chambers Waste Management MRF	MRF	107,761	106,752	104,172	108,332	114,473	137,368
Little Orchard Farm	Britaniacrest Recycling Ltd	MRF	249,980	159,126	152,560	132,486	174,971	299,976
Unit 35	Countyclean Waste Recycling Ltd	Treatment	4,098	7,966	9,732	4,528	4,025	11,678

Surrey WCNA 2023

Site Name	Operator	Site Category	Inputs 2017	Inputs 2018	Inputs 2019	Inputs 2020	Inputs 2021	Plus 20% 'freeboard'
Randalls Road MRF	Grundon Waste Management Ltd	MRF	34,161	33,853	35,622	34,859	35,069	42,747
Homefield Sandpit	Chambers Runfold Plc	MRF	181,326	148,315	155,630	96,921	123,725	217,591
Ash Vale WTS	Suez Recycling and Recovery U K Ltd	MRF	42,096	42,278	38,487	38,807	39,766	50,734
Dunsfold Park A D Facility	D B E Energy Ltd	Organic Waste Treatment	-	-	-	645	2,436	Not applicable
Trumps Farm	Envar Composting (Surrey) Ltd	Organic Waste Treatment	26,018	26,792	28,135	18,924	29,234	Not applicable
R H S Garden Wisley	The Royal Horticultural Society	Organic Waste Treatment	-	-	788	753	880	Not applicable
Strawberry Farm, Normandy, Gu3	C P Backhurst & Co Ltd	Organic Waste Treatment	14,800	11,000	11,000	6,000	10,000	Not applicable
The compost Centre	Harrington & Jessup Ltd	Organic Waste Treatment	6,023	5,671	5,840	5,919	3,652	Not applicable
Fordwater Trading Estate	Simvic Limited	MRS	348	973	4,502	3,060	2,515	5,402
Warlingham CRC	Suez Recycling and Recovery Surrey Ltd	HWRC	1,897	-	612	167	662	2,276
Bourne Mill Community Recycling Centre	Suez Recycling and Recovery Surrey Ltd	HWRC	3,928	-	2,305	2,571	4,038	4,846
Caterham CRC	Suez Recycling and Recovery Surrey Ltd	HWRC	3,674	3,296	3,149	1,603	2,707	4,409
Epsom Community Recycling Centre	Suez Recycling and Recovery Surrey Ltd	HWRC	65,645	60,783	63,331	57,337	53,862	78,774

Surrey WCNA 2023

Site Name	Operator	Site Category	Inputs 2017	Inputs 2018	Inputs 2019	Inputs 2020	Inputs 2021	Plus 20% 'freeboard'
Leatherhead CRC and WTS	Suez Recycling and Recovery Surrey Ltd	HWRC	50,617	51,245	61,196	58,051	50,973	73,436
Lyne CRC	Suez Recycling and Recovery Surrey Ltd	HWRC	6,738	5,092	4,771	3,793	5,048	8,085
Martyrs Lane CRC	Suez Recycling and Recovery Surrey Ltd	HWRC	10,727	10,564	9,016	6,905	10,814	12,977
Nanhurst Civic Amenity Site	Suez Recycling and Recovery Surrey Ltd	HWRC	2,714	1,881	1,126	550	1,571	3,257
Dorking CRC	Suez Recycling and Recovery Surrey Ltd	HWRC	3,029	1,995	1,063	297	1,445	3,635
Guildford CRC & WTS	Suez Recycling and Recovery Surrey Ltd	HWRC	132,811	127,996	125,423	124,781	130,141	159,373
Bagshot CRC	Suez Recycling and Recovery Surrey Ltd	HWRC	-	2,336	1,190	420	1,610	2,803
Witley CRC	Suez Recycling and Recovery Surrey Ltd	HWRC	6,430	6,474	6,033	5,399	7,366	8,839
Camberley CRC	Suez Recycling and Recovery Surrey Ltd	HWRC	-	7,261	6,662	5,174	8,008	9,610
Charlton Lane Eco Park	Suez Recycling and Recovery Surrey Ltd	HWRC	-	-	-	-	-	-
Earlswood CRC	Suez Recycling and Recovery Surrey Ltd	HWRC	92,343	88,920	94,668	106,662	110,272	132,326
Hithermoor Quarry	Brett Aggregates Ltd	Recycled Aggregate Site	303,499	306,161	0	261,035	297,604	367,393
Addlestone Quarry	Cappagh Public Works Ltd	Recycled Aggregate Site	54,036	105,714	203,472	210,174	218,281	261,937
Stanwell Quarry	Cappagh Public Works Ltd	Recycled Aggregate Site	137,042	129,440	116,784	177,935	216,695	260,034
Queen Mary Quarry	Brett Aggregates Ltd	Recycled Aggregate Site	5,619	0	0	4,162	4,602	6,743

Surrey WCNA 2023

Site Name	Operator	Site Category	Inputs 2017	Inputs 2018	Inputs 2019	Inputs 2020	Inputs 2021	Plus 20% 'freeboard'
Little Orchard Farm	Britaniacrest Recycling Ltd	Recycled Aggregate Site	249,980	159,126	152,560	132,486	174,971	299,976

Surrey WCNA 2023

Site Name	Operator	Site Category	Inputs 2017	Inputs 2018	Inputs 2019	Inputs 2020	Inputs 2021	Plus 20% 'freeboard'
Homefield Sandpit	Chambers Runfold Plc	Recycled Aggregate Site	181,326	148,315	155,630	96,921	123,725	217,591
Clasford Bridge	John Gunner And Company Ltd	Recycled Aggregate Site	16,670	16,680	17,438	18,234	22,388	26,865
Kill Copse, Willinghurst Estate	Guildford Tipper Hire Ltd	Recycled Aggregate Site	9,200	8,579	0	8,272	7,285	11,040
Reigate Road MRF	J & J Franks Limited	Recycled Aggregate Site	22,610	28,316	29,875	27,643	30,536	36,643
20-24 Westfield Road	Chambers Waste Management MRF	Recycled Aggregate Site	107,761	106,752	104,172	108,332	114,473	137,368
Haysbridge Farm	EGAP Recycling Ltd	Recycled Aggregate Site	-	-	34,586	33,278	33,666	41,503
Ellerton Yard	DJ Grab Services Ltd	Recycled Aggregate Site	-	75,757	29,705	34,870	26,093	90,908
Molesley Road	Weylands Treatment Works Ltd	Recycled Aggregate Site	30,678	35,054	39,053	40,021	0	48,025
Unit 2 Plough Industrial Estate	D & E Roberts Ltd	Recycled Aggregate Site	38,266	36,427	33,178	27,779	27,393	45,919
Normans Corner	R S Etherington Ltd	Recycled Aggregate Site	-	-	9,971	0	8,037	11,966