Medway Local Plan - Waste Evidence Base

Project: Medway Waste Needs Assessment 2020 – Main Report

Final Issue

Issued: 10th July 2020

BPP Consulting Document Control

Project: Medway Waste Needs Assessment 2020 - Main Report

Version Description: Final Issue

Issued: 10.07.2020

Version No.	Version Description	Author	Date	Reviewed	Date
0.1	Internal Review	Alan Potter (Partner)	01.05.2020	Ian Blake (Partner)	05.05.2020
1.0	Client review	Alan Potter (Partner)	27.05.2020	*Andrew Bull (Client Contact)*	03.06.2020
1.1	Post Client Review	Alan Potter (Partner)	12.06.2020	*Andrew Bull (Client Contact)*	08.07.2020
1.2	Final Issue	Alan Potter (Partner)	10.07.2020		

Table of Contents

Executive summary

This report presents the outcomes arising from the Waste Needs Assessment (WNA) exercise undertaken by BPP Consulting. The WNA was completed to update the evidence base supporting the preparation of the Waste Chapter of the Medway Local Plan. The WNA identifies the need for additional waste management capacity in Medway by quantifying and characterising the principal waste streams arising in the Plan Area and producing forecasts/estimates of the amount of waste that needs to be managed over the plan period, whilst taking into account the potential contribution of the existing available waste management capacity within Medway.

The WNA found that a total of over half a million tonnes of wastes arose within Medway in 2018. This exercise has confirmed that figure as a robust value to plan for. The quantities of principal categories of waste arising are shown in Figure 1 below:

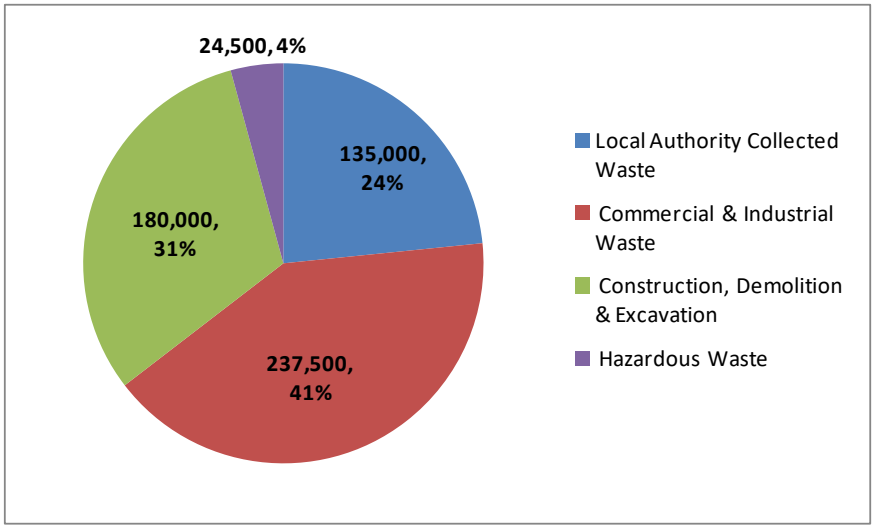

Figure 1: Quantities of Principal Waste Types Arising in Medway 2018 (tonnes)

The WNA found that while there appears to be sufficient existing consented capacity to meet inert waste management requirements, the principal predicted shortfall in capacity for the plan period is capacity to manage non inert waste through recovery and disposal. In particular the need for additional recycling/composting capacity, Other Recovery capacity and non inert landfill capacity

The report goes on to present options available to address these shortfalls. Principally they rely on utilisation of capacity in adjacent or nearby Plan areas available over the Plan period. This approach is consistent with initial findings on the availability of capacity in the wider catchment. It also reflects current arrangements where, for example, LACW is managed through an Energy from Waste plant in South London

It is recommended that the findings be verified through direct engagement with host WPAs as required by the Duty to Cooperate (DtC) - waste being regarded as a strategic issue. Should that DtC exercise not confirm the availability of sufficient capacity, then it is recommended that suitable land that might accommodate additional capacity be identified for allocation in the Local Plan.

Abbreviations & Glossary of Terms

Abbreviations

AD	Anaerobic Digestion
AMR	Authority Monitoring Report
C & I	Commercial & Industrial Waste
C, D & E / CDEW	Construction, Demolition & Excavation Waste
DEFRA	Department for Environment, Food and Rural Affairs
EA	Environment Agency
EfW	Energy from Waste
EWC	European Waste Catalogue
GVA	Gross value added
HWRCs	Household Waste Recycling Centres
LACW	Local Authority Collected Waste
MRF	Material Recycling Facility
nPPG	national Planning Practice Guidance
NPPW	National Planning Policy for Waste
RDF	Refuse Derived Fuel
WDF	WasteDataFlow
WDI	Waste Data Interrogator
WNA	Waste Needs Assessment
WPA	Waste Planning Authority

Glossary of Terms

Advanced Thermal Treatment (ATT)	A range of technologies designed to generate a fuel (syngas) from waste. This may be used to produce heat, electricity or used as a fuel or chemical feedstock. The principle technologies are based on gasification and pyrolysis. ATT tends to be deployed at smaller scale than mass burn incineration.
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.
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.
Biodegradable Waste	Waste that can break down over time due to natural biological action/processes, such as food, garden waste and paper.
Commercial Waste	Waste arising from premises which are used wholly or mainly for trade, business, sport, recreation or entertainment, excluding municipal and industrial waste.
Controlled Waste	Waste subject to controls emanating from the EU Waste Framework Directive.
Construction, Demolition & Excavation Waste	Controlled waste arising from the construction, repair, maintenance and demolition of buildings and structures.
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 advice.
Green waste	Biodegradable plant waste from gardens and parks such as grass or flower cuttings and hedge trimmings, from domestic and commercial sources suitable for subjecting to 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 it 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 its characteristics.
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.

Household Waste Recycling Centres	A facility that is available to the public to deposit waste not collected through kerbside collection (otherwise known as a civic amenity sites).
Incineration	The controlled burning 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.
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 destined to be landfilled and separate disposal of hazardous, and non hazardous and inert wastes.
Local Authority Collected Waste	All waste collected by a local authority. Includes household waste and business waste where collected by a local authority and non municipal fractions such as construction and demolition waste. LACW is the definition used in statistical publications, which previously referred to municipal waste.
Materials Recycling Facility (MRF)	A facility for sorting recyclable materials from the incoming waste stream.
Non-inert 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.
Recovery	Subjecting waste to processes that recover value including recycling, composting or thermal treatment to recover energy.
Recycling	Extracting materials from the waste stream for reprocessing into products (the same e.g. glass bottles) or a different one e.g. aggregate)..
Recovery to land	Activities involving the permanent deposit of inert waste for specific purposes not classed as disposal. Generally subject to permitting. May include backfilling of mineral workings.
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 have been removed.
Waste Local Plan	A statutory development plan prepared (or saved) by the waste planning authority setting out polices in relation to the management of waste arising within the area and provision of development to manage waste arising within that area.
Waste Planning Authority (WPA)	The local authority responsible for waste development planning and control. In this case Medway Council.
Waste Transfer Station	A site to which waste is delivered for bulking prior to transfer to another place for further processing or disposal.

Contents

Table of Tables

Table of Figures

1.0 Introduction

1.1 This report presents the outcomes from a comprehensive Waste Needs Assessment (WNA) exercise undertaken by BPP Consulting. This WNA updates the evidence base supporting the preparation of the Waste Chapter of the Medway Local Plan. The WNA involves establishing future waste management requirements and estimating whether existing capacity will be sufficient to meet these needs or whether additional capacity needs to be planned for. The WNA quantifies and characterises the principal waste streams arising in the Plan Area and produces forecasts/estimates of the amount of waste that needs to be managed over the Plan period, whilst taking into account the contribution of the consented and permitted waste management capacity. This work is undertaken in the context of the National Planning Policy for Waste (NPPW)[1] and the national Planning Practice Guidance[2] (nPPG), which expects that:

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

1.2 To achieve this the following steps have been followed:

1. Scope target waste streams;
2. Generate robust baseline waste arisings values;
3. Generate realistic and meaningful forecasts of future waste arisings;
4. Identify appropriate relevant targets for the management of waste e.g. to ensure that waste is managed in accordance with the waste hierarchy;
5. Assess current capacity;
6. Quantify future capacity needs accounting for cross boundary movements of waste;
7. Establish any associated future gaps in waste management capacity; and
8. Identify facility and site requirements to fill any identified projected gap.

[1] https://www.gov.uk/government/publications/national-planning-policy-for-waste

[2] http://planningguidance.planningportal.gov.uk/blog/guidance/waste/

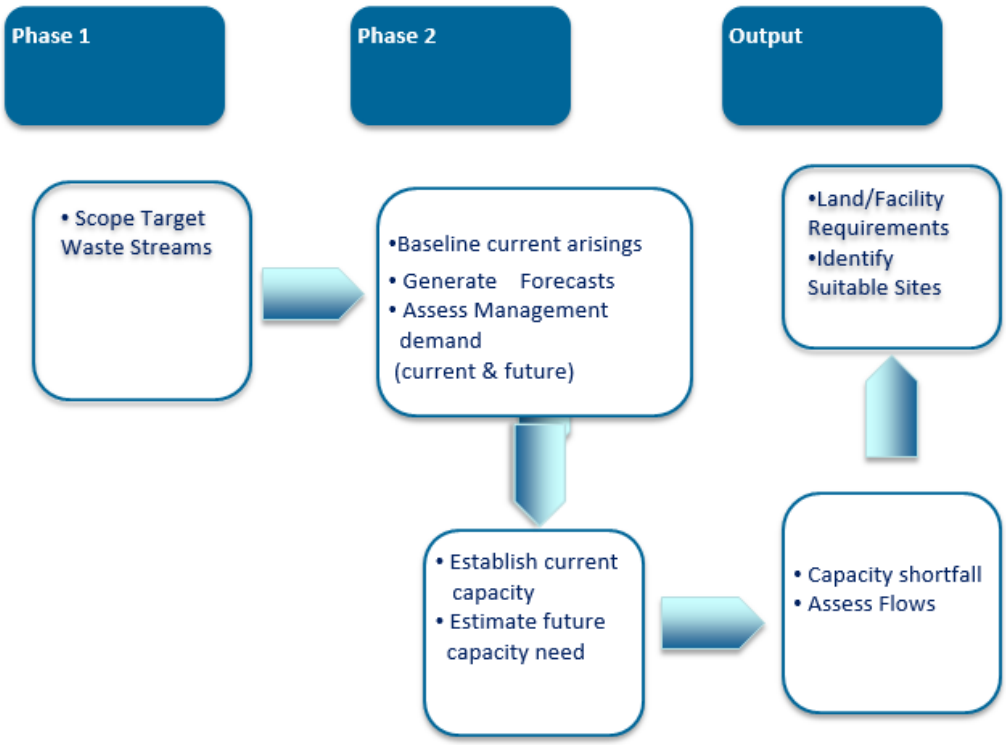

Figure 2: Schematic of Waste Needs Assessment Production Process

1.3 The outcome of waste stream-specific assessments, are presented in a suite of five supporting reports that form part of the evidence base behind this main report. These assess current and forecast arisings and determine appropriate targets that may be included in the Waste Chapter of the Medway Local Plan. The reports are as follows:

1. Local Authority Collected Waste;
2. Commercial & Industrial Waste;
3. Construction, Demolition & Excavation Waste;
4. Hazardous Waste;
5. Other Waste

1.4 Since arrangements for the management of Low Level Radioactive, Agricultural, and Waste Water have been found to be sufficient in the Other Waste Report[3], that considered these waste streams, these streams have not been considered further. The waste streams considered in this report exercise, are therefore as follows:

- Local Authority Collected (Municipal/household);
- Commercial & Industrial;
- Construction, demolition & excavation; and
- Hazardous.

[3] BPP Consulting Waste Needs Assessment 2020 Scoping report for Other Waste Report 5.

2.0 Principal Data Sources

The principal data sources used to generate the underlying evidence for the Waste Needs Assessment are as follows:

Environment Agency Waste Data Interrogator (WDI)

2.1 Operators of all sites permitted to manage waste (other than incinerators/energy from waste plants and specialist hazardous waste treatment plants) submit quarterly 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 and are included in a national database known as the Waste Data Interrogator (WDI). This is released approximately nine months after the end of the calendar year to which the data relates. The 2018 WDI (that includes data for the year 2018) is the current version available.

Environment Agency Waste Incinerator Returns (WIR)

2.2 The WDI does not include inputs to facilities such as incinerators which are reported separately through the Environment Agency's Waste Incinerator Returns.

Environment Agency Hazardous Waste Data Interrogator (HWDI)

2.3 When hazardous waste is moved, forms called consignment notes are completed to track its movement and submitted to the Environment Agency. These are collated by the Environment Agency and are integrated into a national database known as the Hazardous Waste Interrogator (HWI). This is released around nine months from the end of the calendar year that is reported. The 2018 HWDI (that reports 2018 data) is the current version available.

Register of activity exempt from the need for an Environmental Permit

2.4 To reduce the regulatory burden on certain low risk waste management activity, a range of activities are exempt from permitting. Exemption from permitting is gained by simple registration of the activity on the Environment Agency website. The activities range from the bonfires and deposit of certain specified waste to confer agricultural benefit. A register is maintained of all registered exemptions. The Environment Agency provides an updated listing of registered exemptions on request. The dataset provided to inform this project covered the period 1 January 2015 through to 31 December 2018 as exemptions expire after 3 years. The listing of registered U1 exemptions covering the use of C,D&E waste for construction was accessed to inform the C,D & E waste baseline.

Environment Agency Remaining Landfill Void

2.5 The Environment Agency provides an annual listing of remaining void at landfills under the Environmental Permitting Regulations. The dataset used to inform this project covered the period to the end of 2018. It does not account for void that might be used for landfill that had not, at that date, been granted an environmental permit such as void in the process of being created through mineral working.

Quantities of Waste Produced in Medway

2.6 The WNA has found that just over 0.5 million tonnes of wastes arose within Medway in 2018. The principal components are:

- Local Authority Collected Waste c135,000 tonnes
- Commercial & Industrial Waste c237,500 tonnes
- Construction, Demolition & Excavation c180,000 tonnes
- Hazardous Waste c24,500 tonnes

The profile presented is illustrated in Figure 1 of the Executive Summary of this report.

Capacity Assessment Overview

2.7 The capacity of existing waste management facilities in Medway (the Plan area) has been assessed using information about planning consents issued, supplemented by reference to the permitted sites listed in the Environment Agency Register of Permits, the Environment Agency Waste Data Interrogator (WDI) for inputs and outputs of operational sites. The data from these sources together captures both operational and non-operational facilities with planning consent.

2.8 Examination of these datasets indicate the following capacity types exist within the Plan area:

- Inert Landfill;
- Waste Transfer; and
- Waste Recycling.

2.9 Review of the data sources found that there are no consented thermal treatment i.e. Energy from Waste facilities in the Plan area[4] and no live applications in the pipeline.

Sources of Facility Capacity Data

2.10 Facility capacity data has been collated from review of input data compiled by the Environment Agency over 5 years (see Appendix 1) plus a review of the register of Medway planning applications.

2.11 Where the planning permission gives an express limit this is taken to apply as that represents the consented capacity. Where no limit is specified the operational capacity of existing sites was estimated following consideration of the quantity of waste inputs to each site recorded in the WDI over the 5 year period 2014-2018 (See Appendix 1). The peak value recorded over the five

[4] It should be noted that while Pelican Reach benefits from a Lawful Development Certificate that includes the processing of waste using gasification technologies it is highly unlikely to ever be implemented.

year period has been taken, on the basis that the site could manage that quantity of waste on an ongoing basis. In addition, to allow for the possibility that the peak operating value is not an absolute limit, a 15% 'freeboard' has been added. These additions are intended to reflect the maximum realistic throughput of the facility, as opposed to theoretical capacity.

Assumed void space to tonne conversion factors

2.12 Where waste is destined for landfill it is necessary to account for the fact that mass does not necessarily equal volume. That is to say 1 tonne of waste may not occupy 1 m^3 of capacity. Estimates of landfill void requirement therefore need to account for the density of waste material under consideration.

2.13 For the purposes of this WNA 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 void. This latter value is greater than that of 0.85 t/m^3 applied historically, as very little '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 significantly more dense than untreated mixed municipal (and similar wastes).

3.0 Existing Capacity in Medway by Waste Management Method

Landfill

3.1 In order to establish the remaining landfill void capacity in Medway, information sourced from the Environment Agency was primarily used, with supporting information obtained from the Medway register of planning applications. The consented landfill sites with remaining void in Medway in 2018 are shown in Table 1.

Table 1: Consented/Operational Landfills in Medway 2018

Operator/Facility Name	Facility Type Description	Type of waste	Consented Void m3 (end 2018)	Notes
Brett Aggregates/ Alpha Lake Landfill	Inert Landfill	CD&E	1,000,000	No inputs shown for 2018
Brett Aggregates/ Chalk Lake Landfill	Inert Landfill	CD&E	400,000	No inputs shown for 2018
Downland Trading (Kent) Limited/ Manor Farm Barn Landfill & Recovery Operation	Inert Landfill	CD&E	771,681	50,591 tonnes accepted in 2018
	Total		2,170,000	

3.2 The summary in Table 1 shows that there are no landfills with capacity to accept non-inert waste (e.g. C&I and LACW) operational within Medway, but there is inert landfill offering over 2 million m3 of capacity. Data for 2018 indicates that only one site, Manor Farm, was actually operational at that time.

Organic Waste Treatment (Composting, Anaerobic Digestion)

3.4 Various types of facility exist to recycle organic waste including windrow composting, in-vessel composting and anaerobic digestion (AD). Windrow composting is used primarily for the processing of garden and green waste and other vegetation. Kitchen and commercial food waste can only be processed in enclosed systems such as in-vessel composting plant (IVC) and AD facilities to meet the requirements of the Animal By-Products Regulations. Only one such facility was identified as operating or consented in Medway located at Kingsnorth Industrial Estate, Hoo. This is an in vessel composting system that currently manages around 9,000 tonnes of sewage screenings and sludge per annum but has a permitted capacity of up to 75,000tpa.

Material Recycling Facilities (MRF)

3.5 When recyclates such as plastics, metals, paper, cardboard, glass are collected together as mixed streams, or 'comingled', the collected material needs to pass through a materials recycling facility (MRF), to separate the individual material streams for reprocessing. The level of complexity of a MRF operation depends on the level of segregation of the recyclable materials when collected.

The increasing trend towards collection of comingled materials requires MRFs with a greater level of sophistication in separation. This results in the capital cost of such facilities rising and the per tonne processing costs dropping with size - economies of scale mean that fewer larger facilities tend to be developed. These normally serve a sub-regional if not regional market, served by bulking sites or waste transfer stations for the aggregation of recyclate located within the source plan areas. This reflects the current arrangement in place for Medway, with kerbside collected recyclate from LACW requiring separation for recycling being sent to the MRF operated by Veolia in Southwark, South London. This is a c85,000tpa capacity MRF and receives waste from across the wider South East.

Transfer Capacity

3.6 Waste transfer capacity refers to the reception and bulking of collected wastes, both residual and separated recyclates, prior to onward transfer to waste management facilities elsewhere. Increasingly, some separation for recycling may also take place at such transfer 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 source separated Local Authority Collected Waste (LACW) for onwards transfer.

3.7 The principal dedicated waste transfer facilities handling either LACW or C&I or a combination of both (MSW) and their capacity in Medway is provided at the sites shown in Table 2.

Table 2: Medway LACW & C&I Waste Transfer Capacity, (tonnes per annum)

Site Name (and operator)	Principal Waste Type Managed	Permitted capacity	Peak Deposit value +15%	Preferred Value	Notes
Medway MRF & WTS (Veolia)	LACW	150,000 LACW and 100,000 C&I	152,758	250,000	
Knight Rd, Rochester (Countrystyle Recycling Ltd)	MSW	-	56,732	56,732	
Pelican Reach (Plot L) (Viridor)	MSW	670,000	88,112	88,112	*Lawful Development Certificate for storage, treatment and processing of waste using gasification technologies*
	Sub Total	**920,000**	**297,602**	**394,844**	
Berth 6, Chatham Dockyard (Streetfuel)	*RDF*	-	*391,760*	*391,760*	*Site within area likely to be allocated for redevelopment and therefore capacity has not been considered further*
Building 63, Chatham Docks, (Chatham Freight Station Ltd)	***RDF***	**-**	*8,051*	*8,051*	
	Total	***920,000***	***697,413***	***794,655***	

3.8 In addition to the facilities listed in Table 2, there are 3 household waste recycling sites provided by Medway Council operated under contract by Medway Norse Ltd. They also provide capacity that may be counted as transfer capacity as waste delivered by the public to these sites is segregated, bulked and then transported on for onward management. These sites and their assessed capacities are shown in Table 3. Following the convention of taking a permitted capacity where specified, and the highest actual input over the past 5 years plus 15% (as presented in Appendix 1) gives a total capacity of c40,000 tpa. When this capacity is added to the capacity in Table 2 it gives a total Medway transfer capacity of between c435,000 and 834,000 tpa.

Table 3: Medway HWRC Capacity, (tonnes per annum)

Site Name	Permitted capacity	Peak Deposit value + 15% (Appendix 1)	Capacity Value
Capstone	-	11,316	11,316
Cuxton	-	14,028	14,028
Hoath Way	15,000	9,611	15,000
Totals	**15,000**	**34,956**	**40,344**

CDEW Recycling Capacity

3.9 It is estimated that around 180,000 tonnes of C,D & E waste was produced in Medway in 2018. Four facilities in Medway offer a combined management capacity of just under 115,000 tonnes per annum. In 2018 just over 70,000 tonnes of waste was deposited at those sites as shown in Table 4.

Table 4: Medway C,D & E Waste Recycling Capacity, 2018 (tonnes per annum).
Source: Various

Site Name (and operator)	Permitted capacity	Peak Deposit value + 15% (Appendix 1)	Preferred Value
Unit 1 Templemarsh Estate, Strood, (Kent Soils & Composts Ltd)	74,999	38,119	74,999
20, Knight Rd, Rochester (S Lawrence (Crushing Contractors) Ltd)	-	25,527	25,527
Unit 18 Morgans Timber Yard (Walsh Skip Hire Ltd)	-	5,690	5,690
Gillingham Gate, Chatham Docks,(Mobile Compactor Services)	8,000	1,334	8,000
Totals		**70,669**	**114,200**

End of Life Vehicles & Metal Recycling

3.10 Scrap metal principally comes from industrial sources along with demolition and construction. In Medway there is one site that primarily manages scrap metals and two sites that primarily/exclusively manage End of Life vehicles (known as ELVs). As ELVs are classed as hazardous waste until they have been depolluted the capacities of sites managing these has been counted in the hazardous waste capacity assessment. The metal recycling site's capacities and deposits in 2018, as shown in the WDI, are presented in Table 5.

Table 5: Medway Metal Recycling Capacity, 2018 (tonnes per annum).
Source WDI, Appendix 1

Site Name	Permitted capacity	Peak Deposit values + 15%	Preferred Value
Unit B Whitewall Road (EMR)	50,000 (MC/13/2/862)[5]	7,165	50,000

Capacity Summary

3.11 Table 6 shows a summary of operating capacity of the different types of facilities investigated. In total at the end of 2018 there was intermediate capacity for managing waste of over 675,000 tonnes per annum in Medway. It should be noted that any capacity assessment only presents a snapshot at a particular point in time as the permitted estate is in a state of flux with sites closing and new sites coming on stream over time as illustrated in Appendix 1. It should be noted that capacity at sites that have been inactive for two years or more has been discounted on the basis the sites may have been redeveloped and hence are no longer available. If these were counted the values would be significantly higher (additional 142,000tpa of capacity) as shown in Appendix 1.

Table 6: Medway Built Waste Management Capacity, 2018 (tonnes per annum).

Capacity Type	Facility Type	Operational capacity
Recycling/composting	IVC	75,000
	CDEW Recycling	115,000
	Metal Recycling	50,000
	Subtotal	***240,000***
Waste Transfer	MSW Waste Transfer	395,500[6]
	HWRC	40,000
	Subtotal	***435,500***

[5] This permission also consents the operation of a Waste Transfer Station for C&I waste with capacity of up to 75,000 tpa which has yet to be implemented.

[6] Value excludes two sites at Chatham Dock to be allocated for redevelopment

4.0 Assessing the Capacity Gap in Medway

Net Self Sufficiency

4.1 Having established available capacity within the Plan area, this is then compared with the projected capacity requirements determined in the waste stream specific reports in order to ascertain if there is likely to be any waste management capacity gap in future. This assessment takes account of the strategic objective of net self sufficiency as set out in the SEWPAG Statement of Common Ground [7] to which Medway council is a signatory. This reads on the matter as follows:

2.1 ***The Parties agree*** *that they will plan for net self-sufficiency which assumes that within each waste local plan area the planning authority or authorities will plan for the management of an amount of waste which is equivalent to the amount arising in that plan area. For the avoidance of doubt,* ***the Parties agree*** *that they will plan on the basis that no provision has to be made in their waste local plans to meet the needs of any other waste local plan area which are basing their waste policies on achieving the principle of net self-sufficiency.*

2.2 ***The Parties accept*** *that when using this principle to test policy, it may not be possible to meet this requirement for all waste streams, particularly where a specialist facility is required to manage specialist waste streams such as hazardous waste.*

2.3 ***The Parties agree*** *that they will therefore prepare plans which provide for the development of facilities that will manage waste produced within, and beyond, their areas based on net self-sufficiency and in accordance with the waste hierarchy.*

2.4 ***The Parties recognise that*** *there may be cases where, despite assessing reasonable options, some waste will not be planned to be managed within a waste plan area because of difficulty in delivering sufficient recovery5 or disposal capacity (E.g. Due to certain designations e.g. Green Belt, AoNB, National Park (see sections below)).* ***The Parties agree*** *that provision for unmet requirements from other authority areas may be included in a waste local plan but any provision for facilities to accommodate waste from other authorities that cannot or do not intend to achieve net self-sufficiency will be a matter for discussion and agreement between authorities and is outside the terms of this SCG.*

2.5 ***The Parties note*** *that, despite assessing reasonable options, there may be some kinds of waste requiring specialist treatment that cannot be managed within their own plan area, either in the short term or within the relevant plan period. These may include hazardous wastes and radioactive wastes. Where provision for the management of these wastes will be planned for in a different waste planning authority area, this will need to be considered between the relevant authorities.* ***The Parties agree*** *that provision for some kinds of wastes, including hazardous and radioactive waste, from other authority areas may be included in a waste local plan but that any provision for facilities to accommodate this waste from other authorities that cannot or do not intend to achieve net self-sufficiency will be a matter for discussion and agreement between authorities and is outside the terms of this SCG.*

[7] *Statement of Common Ground between Waste Planning Authority members of the South East Waste Planning Advisory Group Concerning Strategic Policies for Waste Management* SEWPAG March 2020

4.2 That is to say, Medway council as a signatory is to set out planning for waste on the basis that overall it is to provide sufficient capacity to manage the tonnage of waste equivalent to that predicted to arise within the Plan area over the Plan period. This does not necessarily mean that every tonne of waste produced in a Plan area ought to be managed within that Plan area, rather that overall there should be a balance of provision. However it is notable that the statement also allows for exceptions from this approach where matters can be agreed between individual authorities.

4.3 It should be noted that while the assessment of need 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.

Waste Management Requirements

4.4 To arrive at management requirements for waste produced in Medway the proposed targets have been applied to the forecasts as presented in the background waste stream specific assessments reported in the suite of supporting reports. The proposed targets are presented in Table 7 below:

Table 7: Medway Waste Management Requirements at Plan Milestone years (tonnes)[8]

		Non Inert Waste Management Requirements (Tonnes at Plan Milestone)			
		2018/19	**2023/24**	**2028/29**	**2035/36**
Recycling & Composting	LACW	*46%*	55%	60%	65%
	C&I	*27%*	44%	55%	60%
	CDEW	*8%*	15%	16%	20%
Residual waste Energy Recovery	LACW	*43%*	37%	35%	33%
	C&I	*13%*	28%	45%	35%
Residual waste Non Inert Landfill	LACW	*11%*	8%	5%	2%
	C&I	*60%*	28%	0%	0%
	CDEW	*10%*	10%	9%	4%
Inert C,D & E	Recycled Aggregate	21%	>75%		
	Recovery to Land	58%			

[8] All the values are generated through the processes described in the waste stream specific reports that form part of the supporting evidence base to this WNA.

4.5 The resulting management requirements for waste forecast to be produced in Medway are summarised in Table 8. The progression to the target milestones is compared with baseline year of 2018.

Table 8: Medway Non Inert Waste Management Requirements at Plan Milestone years (tonnes)[9]

		Non Inert Waste Management Requirements (Tonnes at Plan Milestone)				Peak or Cumulative Capacity Requirement (tonnes) rounded
		2018/19	**2023/24**	**2028/29**	**2035/36**	
Recycling & Composting	LACW	*62,105*	75,521	83,939	93,625	94,000
	C&I	*61,300*	113,500	153,000	185,000	185,000
	CDEW	*36,000*	36,000	36,000	36,000	36,000
	Total	***159,405***	**225,021**	**272,939**	**314,625**	**315,000**
Residual waste Energy Recovery	LACW	*58,066*	50,548	48,440	47,533	58,000
	C&I	*31,300*	74,000	128,000	157,600	158,000
	Total	***89,366***	**124,548**	**176,440**	**205,133**	**216,000**
Residual waste Non Inert Landfill	LACW	*14,465*	11,242	7,520	2,881	160,000
	C&I	*144,800*	72,500	0	0	941,000
	CDEW	*18,458*	18,065	16,920	8,700	296,000
	Total	***177,723***	**101,807**	**24,440**	**11,581**	**1,397,000**
Aggregate Recycling/ Recovery to Land	Inert C,D & E	143,000	135,000			135,000

4.6 How the waste management capacity requirements identified in Table 8 above might be met is discussed below.

Recycling & Composting Capacity Requirement

4.7 Recycling and composting 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. Recycling of waste involves the provision of a waste material of a suitable quality so it can be used to substitute for virgin materials as a feedstock in a production process. For example, the use of newspapers to replace virgin timber pulp for newsprint production or the use of glass cullet in place of silica sand to produce glass bottles. Recycling generally occurs at the production site, which is referred to as the reprocessor. The key contribution that waste management facilities make is providing for materials to be delivered to reprocessors in a form and/or quality that enables their use as a feedstock.

[9] All the values are generated through the processes described in the waste stream specific reports that form part of the supporting evidence base to this WNA.

4.8 The waste management capacity requirements to support the achievement of recycling targets for LACW and C&I waste streams varies depending on the collection method used. In particular whether materials are separated at the point of collection and so are collected using segregated collection vehicles or whether recyclate is co-mingled at the point of collection.

4.9 Where materials are source-separated, it is possible for them to be delivered to and bulked up in separate storage areas within a depot/waste transfer station, from where the bulk recyclates are then transported directly to reprocessors. In contrast to this, where materials are collected 'co-mingled' they will need to be processed through a MRF for separation and it would be from there that the recyclates would be sent on to reprocessors. Even for co-mingled materials they may be bulked at intermediate sites (transfer stations) before being transported on to a MRF for processing.

4.10 Therefore it should not be assumed that a tonne of waste to be recycled requires an equivalent tonne of MRF capacity to be provided. Rather provision of bulking capacity might suffice for source separated recyclate from the LACW and C&I waste streams in particular.

4.11 In contrast to recycling, composting or treatment of organic waste requires specific facilities. The nature of the facilities required is largely determined by the nature of the organic waste requiring treatment.

4.12 Table 9 shows the capacity requirements for non-inert waste recycling and composting identified in Table 8 applying the milestones utilised to calculate management profiles across the Plan period presented in the individual waste stream reports. When compared against the total assessed management capacity (Table 6), the estimated peak requirement of 315,000 tpa is significantly greater than the Plan Area recycling capacity alone. This shows that a maximum shortfall of 75,000tpa is predicted during the Plan period.

Table 9: Medway Waste Recycling & Composting Capacity Requirement at Plan Milestone years (tonnes)

		Recycling & Composting Capacity Requirement Tonnes at Plan Milestone				**Peak Requirement (tonnes) rounded**
		2018/19	**2023/24**	**2028/29**	**2035/36**	
Waste Stream	LACW	62,105	75,521	83,939	93,625	94,000
	C&I	61,300	113,500	153,000	185,000	185,000
	CDEW	36,000	36,000	36,000	36,000	36,000
	Total	**159,405**	**225,021**	**272,939**	**314,625**	**315,000**
	Plan Area Recycling Capacity (Table 6)	***240,000***	***240,000***	***240,000***	***240,000***	
	Shortfall	**0**	**0**	**32,939**	**74,625**	**75,000**

4.13 It should be noted that if the Plan area waste transfer capacity of 435,500 tpa is counted as supplying bulking capacity, no shortfall occurs.

Non Inert Residual Waste Management

4.14 Predicted management capacity requirements for non-inert residual waste at Plan milestone years are shown in Table 10. The peak quantity of residual waste for which management capacity is needed is 267,089t in 2018/19. It has been assumed that, after recycling, diversion to energy from waste will be maximised leaving a residue of between 0 and 4% from each stream requiring landfilling in non hazardous waste landfill (Table 7). This results in a peak energy from waste capacity requirement of 205,000tpa in 2035/36 and a cumulative landfill requirement of c1.4 million tonnes.

Table 10: Medway Residual Waste Management Capacity Requirement at Plan Milestone years (tonnes)

		Residual Waste Management Capacity Requirement (Tonnes at Plan Milestone)				Peak or Cumulative Capacity Requirement (tonnes) rounded
		2018/19	**2023/24**	**2028/29**	**2035/36**	
Energy Recovery	LACW	58,066	50,548	48,440	47,533	58,000
	C&I	31,300	74,000	128,000	157,600	157,600
	CDEW	0	0	0	0	0
	Total	**89,366**	**124,548**	**176,440**	**205,133**	**205,000**
Non Inert Landfill	LACW	14,465	11,242	7,520	2,881	160,000
	C&I	144,800	72,500	0	0	941,000
	CDEW	18,458	18,065	16,920	8,700	296,000
	Total	**177,723**	**101,807**	**24,440**	**11,581**	**1,397,000**
	Grand Total	267,089	226,355	200,880	216,714	1,602,000

Inert Waste Management

4.16 Inert waste can be managed through two principal routes - recycled to aggregate or topsoil or deposited for beneficial purposes on land (recovery to land). The peak quantity of waste requiring conversion to aggregate or use in recovery to land projects applying the recommended Plan targets is shown in Table 8 to be c135,000t. It should be noted that the production of recycled aggregate also contributes towards the Plan area meeting its aggregate supply obligations under the NPPF[10], so ought to be supported in principle given an available supply of suitable feedstock.

4.18 Two sites within Medway reported producing recycled aggregate in 2018 as identified in the C,D & E waste report. These sites had a combined production of 37,500 tonnes in 2018. Table 4 indicates that sites recycling C,D & E waste may offer capacity of just under 115,000 tpa in total. In addition, the following is known about the management of C,D & E waste:

[10] Chapter 17 Facilitating the sustainable supply of minerals (Paragraph 203 to 208) NPPF 2019

- Hard materials are often accumulated and processed on a campaign basis as a result of demolition activity, meaning that the limiting factor for management of this component of this waste stream through recycling is supply of material, rather than availability of consented capacity;
- recycling of hard materials is undertaken on a number of other sites including construction sites themselves through the use of mobile plant which can be deployed with relative ease. A review of the mobile crusher permit register in Medway indicates there are at least 3 extant permits for such plant to operate in Medway. This may be estimated to have a processing capacity of 7,500 tpa each, giving a total capacity of 22,500 tpa

4.19 Therefore, total management capacity is estimated to be c136,00 tpa which is in excess of the requirement of c135,000tpa identified in the C, D & E waste report.

4.20 The capacity to convert inert waste into aggregate can be limited by the characteristics of the waste material itself. Therefore some provision is to be made for the deposit of inert waste to land. This has been calculated to amount to c 105,000tpa in the C, D & E waste report . The value of the use of inert waste in certain applications which involve its deposit on land is recognised in the National Waste Management Strategy 2013 which classifies the backfilling of mineral workings with inert waste for restoration and its use in construction as a 'recovery' rather than a disposal activity, meaning that such development is preferred to disposal to landfill.

4.21 One inert waste recovery to land site has been identified as operating in Medway (in 2018) at Commissioners Road. This activity is permitted as a Recovery to Land operation by the Environment Agency. The void offered by this site has been assessed to be 465,000 m3 providing capacity of 511,500m3 as delivered equating to c715,000 tonnes. This site is expected to be filled over a three year period.[11] This site would provide capacity of just under 4 years at current rates of C, D & E waste production were the entire C, D & E waste stream to be formed of soft materials.

4.22 Given the relatively short lived nature of recovery of inert waste to land operations, the suggested method of making provision for the management of excavation soils is to include permissive policies in the Plan. Such policies would relate to the permanent deposit of waste to land that may take the form of engineering operations such as construction of flood defences, subject to the merits of each proposal (including when judged against relevant development management policies). Deposit of inert waste to land might also be supported by policy relating to avoidance of such waste in the first place through careful design and construction methods e.g. incorporation of excavation material as fill into a development at which it arose. This is particularly relevant given Medway is a unitary authority and may therefore consider proposals for non waste management development of which the creation of structures such as acoustic bunds surrounding a residential development may form part.

[11] Commissioner's Road Recovery Operation Environmental Permit Application Waste Recovery Plan March 2017

4.23 Given that the type of C, D & E waste management facility required depends on the nature of the C, D & E waste produced, it is proposed that rather than make provision of streams by type, a target combining inert recycling i.e. conversion of hard materials to aggregate and recovery to land i.e. the beneficial use of soft materials, be adopted.

4.24 In addition Medway has consented inert landfill capacity amounting to over 2 million m3. The Environment Agency dataset relating to remaining landfill capacity identifies 3 sites within Medway that are permitted as inert waste landfill with remaining capacity as follows:

- Alpha Lake, North Sea Terminal, Cliffe - 1,000,000m3;
- Chalk Lake , North Sea Terminal, Cliffe - 400,000m3
- Manor Farm Barn Landfill Frindsbury. - 771,681 m3

Given the forecast adequacy of provision for inert arisings within this stream, this capacity may primarily be used to manage waste from outside the Plan area. This demonstrates some provision is being made for incoming waste, in reciprocation for outflows of other streams, as would be expected when considering application of the net self sufficiency principle on a broad brush basis.

Hazardous Waste Management

4.25 The background evidence report found that the combined hazardous waste management capacity offered by facilities within Medway equates to at least 42,000 tonnes per annum, and this substantially exceeds the peak projected overall annual arising of hazardous waste over the Plan period of c25,000tonnes.

Capacity Gap Summary

4.23 The findings from the preceding discussion on waste management capacity gaps in Medway are shown in Table 11 below. This highlights the capacity gap shortfall by management type both at Plan milestones and the peak or cumulative capacity requirement.

Table 11: Medway Combined Capacity Assessment & Annual Capacity Gap Analysis (tonnes)
Underlined values relate to cumulative totals; *italicised values* represent actuals

Capacity Type	Waste Management Capacity Gap (Tonnes at Plan Milestones)				Peak/ Cumulative Requirement (tonnes) rounded
	2018/19	2023/24	2028/29	2035/36	
Recycling & Composting (Table 9)	**0**	**0**	**32,939**	**74,625**	**75,000**
Energy Recovery (Table 10)	*89,366*	124,548	176,440	205,133	**205,000**
Non Inert Landfill (Table 10)	*177,723*	101,807	24,440	11,581	**1,397,000**
Aggregate Recycling	*0*	0	0	0	
Deposit to Land	*0*	0	0	0	
Hazardous Waste	*0*	0	0	0	0
Grand Total Shortfall (predicted export)	**-**	**226,355**	**233,819**	**291,339**	

5.0 Availability of Sub-Regional Capacity

5.1 Given a projected shortfall in recovery or disposal capacity within the Plan area, consideration should be given to the relevant national policy expectation in National Planning Policy for Waste which states that:

> *3. In preparing Local Plans, waste planning authorities should: …*
>
> - *consider the need for additional waste management capacity of more than local significance and reflect any requirement for waste management facilities identified nationally;*
> - *take into account any need for waste management, including for disposal of the residues from treated wastes, arising in more than one waste planning authority area but where only a limited number of facilities would be required;*
> - *work collaboratively in groups with other waste planning authorities, and in two-tier areas with district authorities, through the statutory duty to cooperate, to provide a suitable network of facilities to deliver sustainable waste management;*
> - *consider the extent to which the capacity of existing operational facilities would satisfy any identified need.*

5.2 This is intended to ensure that over-provision of capacity does not occur and that an optimal distribution of capacity is established "to provide a suitable network of facilities to deliver sustainable waste management" that may extend beyond a specific plan area. This is particularly the case when facilities provided have substantially greater capacity than required to meet the needs of a plan area in which they are located.

Defining the sub Region to Medway

5.3 While waste produced in Medway may travel considerable distances, for the purposes of this assessment the plan areas that are contiguous to Medway have been considered as forming a sub-region to which Medway waste might be expected to travel in the first instance. These areas are listed below.

1. Kent
2. Thurrock; and
3. Essex & Southend on Sea.

Collaboration with Kent

5.4 Medway has a particular relationship with Kent having previously formed part of the County and also sharing membership of the South East Waste Planning Group (SEWPAG). . A recent capacity assessment undertaken for Kent as part of the Early Partial Review of the Kent Minerals & Waste Local Plan found that it has plentiful recycling and Other Recovery capacity[12] and it is therefore appropriate to establish whether surplus capacity may be available for the management of Medway's waste over the Plan period. Table 12 presents the key findings of the 2018 Waste Needs Assessment produced for Kent.

Table 12: Kent Waste Management Capacity Surplus (tonnes)

Capacity Type	Kent Capacity Surplus (Tonnes at Plan Milestone)		
	2021	2026	2031
Recycling & Composting [13]	1,014,500	875,000	725,000
Energy Recovery[14]	225,000	268,500	315,000

5.5 To see how Kent surplus capacity might meet Medway's future requirements, a comparison between the projected capacity surpluses in Kent (shown in Table 12) with the projected capacity requirements for Medway (shown in Table 11) has been undertaken and the results are shown in Table 13 below.

Table 13: Kent Capacity Surplus vs Medway Capacity Shortfalls (tonnes)

Capacity Type		Required Tonnes at Plan Milestone		
		Yr5	Yr10	Yr15
Recycling & Composting	Kent Surplus	1,014,500	875,000	725,000
	Medway Shortfall	0	32,939	74,625
	Difference	+1,014,500	+842,061	+650,375
Energy Recovery	Kent Surplus	225,000	268,500	315,000
	Medway Shortfall	124,548	176,440	205,133
	Difference	+100,452	+92,060	+109,867

5.6 Table 13 shows that even given provision for Medway's waste at Kent's facilities, there is still a remaining surplus (as shown in the green cells) which provides contingency for Kent. If the proposed approach is established to be feasible through Duty to Cooperate engagement with Kent

[12] See Kent Waste Needs Assessment 2018 September 2018 BPP Consulting

[13] From Table 10 *Capacity Requirement for the Management of Residual Non-Hazardous Waste*, September 2018 BPP Consulting

[14] From Table 10 *Non Hazardous Waste Recycling/Composting Capacity Requirement* September 2018 BPP Consulting

County Council, the identified shortfalls for recovery facilities, that is recycling/composting and Other Recovery, may be said to be met and no specific additional provision for these forms of waste management will need to be made within the Medway Local Plan. This approach would be supported by analysis of the spatial distribution of Kent capacity to demonstrate the prospect of Medway waste travelling to the provided facilities is both realistic and sustainable. Figure 3 displays the operational Energy from Waste plants taking residual non inert waste in closest proximity to the Plan area.

Figure 3: Proximal Operational EfW plants in Medway sub region

Landfill Capacity

5.7 The capacity analysis presented in Table 11 also identified a non-inert waste landfill requirement of just under 1.5mt over the Plan period. This is reproduced below in Table 14.

Table 14: Predicted Landfill Requirement for Medway non inert waste from adoption of Plan (tonnes) (rounded)

Capacity Type	Required Tonnes at Plan Milestone			Cumulative Requirement (tonnes)
	2023/24	2028/29	2035/36	
Non Inert Landfill	101,800	24,500	11,500	1,406,000

5.8 Given the more limited availability of non-inert landfill capacity in the Medway sub-region, consideration has also been given to capacity that may be available within a wider catchment of Plan areas contiguous to the identified sub-region too. This extends the area of interest to include the following Plan areas (See Figure 3):

1. East Sussex & Brighton & Hove
2. Surrey
3. South London
4. South East London
5. East London
6. North London
7. Hertfordshire
8. Cambridgeshire; and
9. Suffolk.

5.9 Landfill capacity data collected by the Environment Agency[15], shows the remaining permitted landfill capacity at the end of 2018 for non-inert landfill in the sub-region to Medway and the wider South East. This is displayed in Table 15.

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

Table 15: Permitted Non Inert Landfill Void, Medway sub-region and wider catchment, 2018
(in million cubic metres).
Source: .gov datastore website

Location	Plan Area	Permitted Void at end of 2018 (Mm3)
Medway sub region	Kent	1.96
	Essex	6.59
	Thurrock	3.77
	Sub Total	**12.32**
Wider catchment	Cambridgeshire	6.98
	East London	1.79
	Hertfordshire	0.41
	South London	0.04
	Suffolk	3.84
	Surrey	4.04
	Sub Total	**17.10**

5.10 The locations of the sites are displayed in Figure 4 below by remaining capacities.

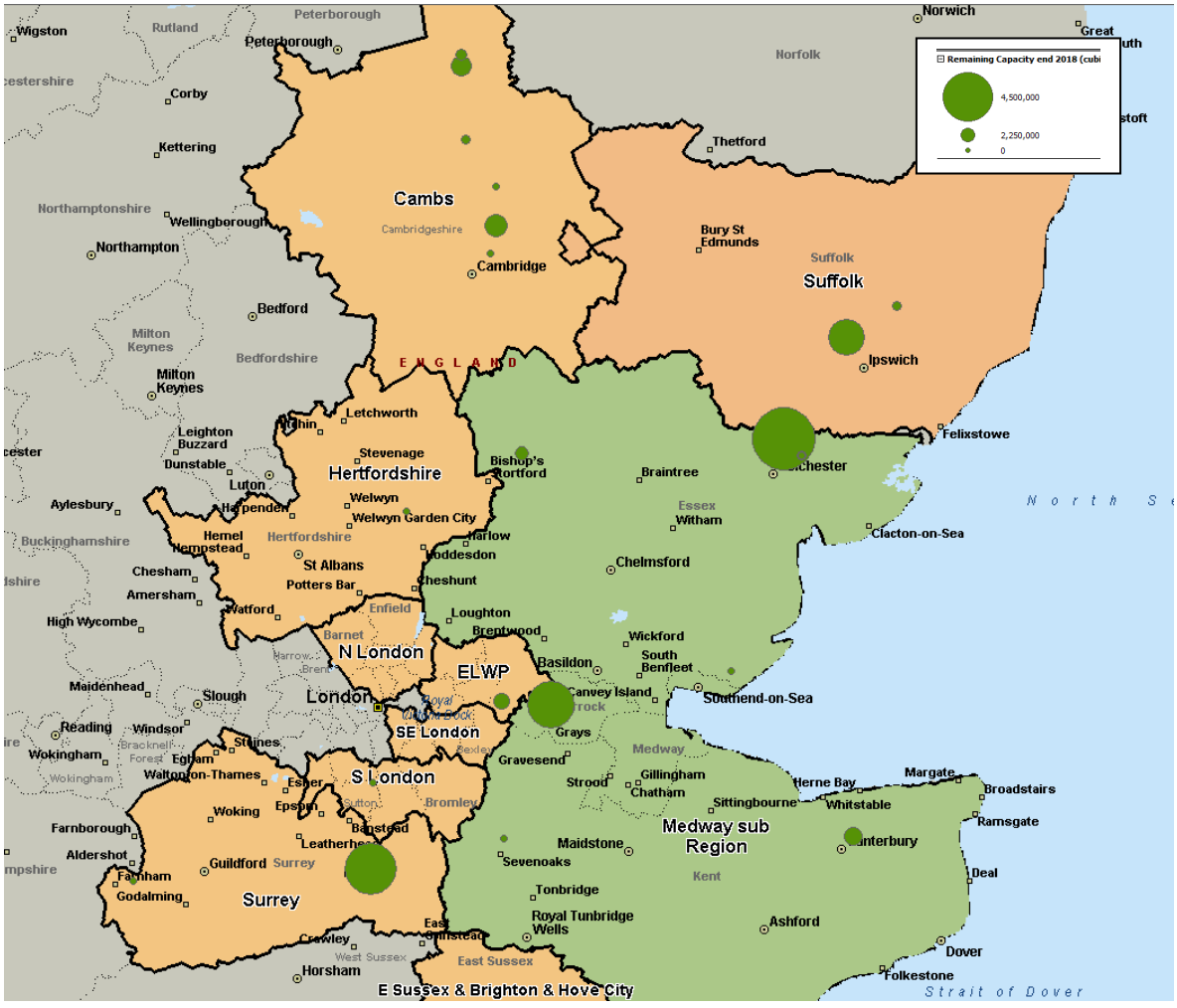

Figure 4: Remaining Landfill void in Medway sub region and Plan Areas within wider catchment

5.11 It should be noted that Environment Agency data on remaining void displayed in Table 15 only accounts for capacity that has received an environmental permit from the Agency, and it may be that void has been consented by planning authorities that has yet to be permitted by the Agency, for example void to be created as a result of mineral extraction. Therefore, the above values may represent an underestimate of non-inert landfill capacity in the sub region.

5.12 Given the expectation that non-inert waste will continue to be diverted from landfill driven by the landfill tax escalator, it may be assumed that the rate of depletion of void in the remaining consented landfills will reduce dramatically. This could serve to conserve remaining void capacity so that Medway's predicted cumulative non-inert landfill capacity requirement of 1,406,132 tonnes (Table 14), to manage the residual waste remaining after diversion to energy recovery, may be accommodated within landfills outside the Plan area. The availability of the landfill void beyond Medway to accommodate its requirements would need to be confirmed with the host WPAs in accordance with the Duty to Cooperate.

6.0 Recommendations

6.1 In light of the above findings the following recommendations are made for next steps in the development of the Medway Local Plan

- Initiate Duty to Cooperate enquiries with WPAs within the identified Medway sub-region i.e. Kent County Council, Thurrock Council and Essex County Council hosting the landfill capacity identified in Table 15 and other capacity. This dialogue would establish the facility capacity available throughout the Plan period and whether there is any planning impediment, such as a planning condition restricting the waste supply catchment, that would prevent waste from Medway being managed there.

6.2 The above engagement should be documented by way of Statements of Common Ground as part of the evidence base supporting production of a sound Medway Local Plan.

Subject to the outcome of the above:

6.3 Consider the identification and allocation of land to accommodate a facility that may receive the equivalent tonnage of non inert residual waste identified as needing management. This equates to a maximum of c205,000 tpa in 2036/7.

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

Site Name	Site Category	2014	2015	2016	2017	2018	Peak Year	Plus 15% freeboard
Active								
Berth 6, Chatham Dockyard (Streetfuel)	C&I Treatment	72,386	113,503	176,323	246,695	340,661	340,661	391,760
Building 63, Chatham Docks, (Chatham Freight Station Ltd)	C&I Treatment	0	0	0	0	7,001	7,001	8,051
Unit 1 Templemarsh Estate, Strood, (Kent Soils & Composts Ltd)	CDE Transfer	27,125	16,727	16,220	33,147	24,269	33,147	38,119
20, Knight Rd, Rochester (S Lawrence (Crushing Contractors) Ltd)	CDE Transfer	0	0	0	18,851	22,197	22,197	25,527
Unit 18 Morgans Timber Yard (Walsh Skip Hire Ltd)	CDE Transfer	3,044	3,661	4,157	4,947	4,385	4,947	5,690
Gillingham Gate, Chatham Docks,(Mobile Compactor Services)	CDE Transfer	0	0	714	1,102	1,160	1,160	1,334
Mollys Car & Commercial Recycling Limited	Haz MRS	0	0	0	232	189	232	267
Knight Road, Strood, Rochester (Mollys Car Breakers)	Haz MRS	571	438	0	253	279	571	657
Unit B Whitewall Road (EMR)	Haz MRS	714	1,647	5,168	4,902	6,230	6,230	7,165
Kingsnorth Oil Treatment Plant (Slicker Recycling Ltd)	Haz Transfer	11,667	0	348	114	2,089	11,667	13,417
Rochester Clinical Waste Treatment Facility (Tradebe)	Haz Transfer	11,320	11,933	11,172	10,683	11,594	11,933	13,723
Hoo Waste Oil Facility (Slicker Recycling Ltd)	Haz Transfer	9,128	3,833	1,254	4,161	0	9,128	10,497
Kingsnorth Oil TP (Slicker Recycling Ltd)	Haz Treatment	0	3,190	4,602	11,504	13,080	13,080	15,043
Capstone HWRC	LACW HWRC	8,816	8,138	9,100	9,350	9,840	9,840	11,316
Cuxton HWRC	LACW HWRC	10,747	10,401	10,924	11,057	12,198	12,198	14,028
Hoath Way HWRC	LACW HWRC	8,023	7,921	8,358	8,129	8,036	8,358	9,611
Medway MRF & WTS (Veolia)	MSW Transfer	111,035	114,459	125,280	127,261	132,833	132,833	152,758
Knight Rd, Rochester (Countrystyle Recycling Ltd)	MSW Transfer	49,332	42,539	40,367	34,177	36,546	49,332	56,732
Pelican Reach (Plot L) (Viridor)	MSW Transfer/Treatment	13,207	51,839	61,901	76,619	75,180	76,619	88,112
Unit 212, Kingsnorth Industrial Estate, Hoo (Composting Facilities Services Ltd)	MSW Treatment	8,928	7,922	8,225	8,517	7,664	8,928	10,267
Inactive								
Berth 1/4 Chatham Dock (London& Kent Metals)	MRS	48,212	59,378	56,386	0	0	59,378	68,285
Cronimet (London) Ltd	MRS	9,882	10,029	9,193	0	0	10,029	11,534
Eco-oil Ltd	Transfer	616	356	0	0	0	616	708
Isle Of Grain Sidings, Kent	Transfer	28,848	23,097	0	0	0	28,848	33,175
McGee Skip Hire	Transfer	757	110	0	0	0	757	871
Morgans Timber Yard	Transfer	2,371	0	0	0	0	2,371	2,727
Unit 20 Knight Road	Transfer	18,847	19,827	21,369	0	0	21,369	24,575