Wheelabrator Technologies Inc

Hearing Statement to Early Partial Review of the Kent Minerals and Waste Local Plan 2013-2030

Matter 2: Early Partial Review

Wheelabrator Technologies Inc ('WTI') has submitted several written representations to the Early Partial Review of the Kent Minerals and Waste Local Plan 2013-2030 and held one meeting with Kent County Council on 16 May 2018. These are:

- Response to Kent Minerals and Waste Local Plan 2013-30 and Sites Plans Consultation with Waste Management Industry on Waste Capacity Needs Assessment, August 2017;
- Letter to Barbara Cooper, Corporate Director for Growth, Environment and Transport, Kent County Council, 24 November 2017; and
- Response to Partial Review of the Kent Minerals and Waste Local Plan, March 2018 ('WTI March 2018'), including;
  - Annex A, WTI LACW Review ('WTI LACW Review');
  - Annex B, WTI C&I Review and WTI RDF Review ('WTI C&I Review' and 'WTI RDF Review'); and
  - Notes of Meeting. KCC PARTIAL REVIEW OF MINERALS AND WASTE LOCAL PLAN, 16 MAY 2018

Having regard to paragraph 19 of the 'Guidance Note from the Inspector' the contents of WTI's written submissions are not repeated in this statement; WTI assumes that the Inspector has seen all of these representations and given them due regard.

Within this Statement the following abbreviations are used (alphabetical order):

- adopted KMWLP: Kent Minerals and Waste Local Plan 2013-2020, adopted 2016
- EA: Environment Agency
- EPR: Early Partial Review of the Kent Minerals and Waste Local Plan 2013-2030;
- LACW: Local Authority Collected Waste
- RWS 2018: Our Waste, Our Resources: A Strategy for England, Defra, December 2018

Issue: Whether the amended policies are justified and sound in all other respects.

WTI considers that there is no effective strategy for the recovery of residual waste presented within the EPR, resulting in the consequent risk of failure in the provision of the infrastructure necessary to deliver sustainable communities in Kent.

The removal of a commitment to prepare a Waste Site Plan is based upon an unreliable evidence base. The reality of the unsubstantiated low growth and high recycling assumptions presented, without suitable alternatives, in the KCC Waste Need Assessments is a lack of waste management infrastructure in Kent. Simply forecasting less waste doesn't make this outcome occur. Relying on those calculations to conclude that no new capacity is required simply means that the resultant strategy is not able to drive where that required infrastructure should be provided; a core objective of any local plan.

The WTI March 2018 submission identifies:

- 88,000 to 193,000 additional tonnes of LACW arising and up to an additional 130,000 tonnes of residual LACW that should be diverted from landfill;
- 0 to 270,000 additional tonnes of C&I wastes that are 'Not Codable' but expected to be generated in Kent;
- 28,000 to 141,000 additional tonnes of residual C&I wastes that are likely to be require diversion from landfill; and
- 198,532 tonnes of RDF manufactured in Kent, of which 100,000 to 188,000 tonnes was from waste generated in Kent or the South East, and exported outside the UK.

Recognising the inherent uncertainties in waste data, and in forecasting generally, WTI has identified a range of tonnages; an approach generally considered as best practice in waste forecasting. The WTI Reviews are not submitted as in-depth need assessments for waste management in Kent; this is a task for KCC in preparing its development plan policy. However, they demonstrate the problems inherent within the Waste Needs Assessment undertaken by KCC and demonstrate both:

- the extent of flexibility that should be built into a local plan, but which is not present in the Partial Review; and
- the lack of robustness in the KCC Waste Need Assessments, the conclusions of which are consistently at the lower end of the WTI ranges.

Appropriate waste management is widely recognised in national policy to deliver economic, environmental and societal gain. The approach set out in the EPR will restrict Kent's access to all these benefits.

Questions

For ease of reference, this Statement has been set out in a tabular format, providing both the MIQ question reference and text, alongside WTI's response.

WTI has not responded to questions:

- 24; 25;
- 33; 37; 39;
- 42; 44.

Ref	Question and WTI Response
Policy CSW4: Strategy for Waste Management Capacity	
26	**Is there any data available on the recycling rate for Commercial and Industrial (C&I) waste and, if so, does this meet the relevant target?**
	There is no readily available data on the recycling rate for C&I waste. Defra does not provide C&I recycling rates, and in its most recent UK Statistics on Waste (February 2019) states '*C&I waste generation remains extremely difficult to estimate owing to data limitations and data gaps. As a result, C&I estimates for England have a much higher level of uncertainty than Waste from Households (or other Local Authority Collected Waste) and users should exercise caution in application of the figures and interpreting trends over time*'. Further, in February 2019 Defra undertook Consultation on Consistency in Household and Business Recycling Collections in England (https://consult.defra.gov.uk/environmental-quality/consultation-on-consistency-in-household-and-busin/). In this consultation, Defra advises with regards to business waste (which does not include all C&I wastes) that '*There is currently no robust reporting for waste collection and recycling in the non-household municipal sector. Neither has this sector had many direct policy measures to drive recycling performance.* *WRAP and Defra analysis of the sector assumes the recycling rate for the sector around 30%-40%[57] at the moment. However, the level of recycling has been found to vary significantly over different sectors and sizes of firms and organisations so it is difficult to be certain of exact levels without robust monitoring. The impact assessment assumes a central estimate of 35%, or 7.1Mt of waste, is currently recycled.'* [page 51] Footnote 57 states: *WRAP estimate for the NHM* [non household municipal] *sector's recycling rate is based on an actual sub-sector profiling of waste generation per material and type of business. Defra's estimate for commercial and industrial recycling rate is around 40%. See the impact assessment, Annex B.'* The Impact Assessment at Annex B states *'Since NHM and Commercial & Industrial (C&I) waste compositions are fairly comparable (i.e. commercial waste makes up two-thirds of C&I), our central estimate is therefore in line with Defra's latest (2016) working estimates for C&I waste in England which indicate a current C&I recycling rate of around 40%. NHM recycling rate is expected to be lower than that of C&I given that C&I waste streams tend to be purer compared to NHM waste streams. The C&I figure is based on dividing the C&I data into broad treatment categories, according to the source of the data, and defining 'recycling' as dry recyclates plus composting. It should be noted that, while Defra have worked closely with industry experts to review and improve the C&I methodology for England, significant uncertainties and limitations remain in the available underlying data. ...'* [page 29] The only reference currently available from Defra therefore is a working estimation that approximately 40% of C&I waste is currently recycled, although the industry believes this figure to be higher. It is possible to calculate an indication of C&I waste recycling within Kent, through analysis of information held within the Waste Data Interrogator, a database managed by the EA, albeit this is reliant on the information provided by waste handlers and consequently input to the database. However, the Waste Needs Assessment undertaken by Kent for the EPR has simply applied target C&I waste recycling levels and assumed these are achieved without recourse

	to any further analysis. It is this approach that WTI believes leads the EPR to underestimate future waste management need and remove the commitment to preparing a Waste Sites Plan.
27	**Would the amended targets for recycling encourage the treatment of waste in accordance with the waste hierarchy?**
	As WTI has previously commented (most recently at paragraph 3.3.4 of WTI March 2018) simply stating targets for recycling in isolation is unlikely to encourage the treatment of waste in accordance with the waste hierarchy. Aspirational recycling targets with no policy/regulatory/financial measures to enforce their implementation generally result in limited change in behaviour; not least this is highlighted by the plateauing of local authority recycling rates. Changes in behaviour, and consequently recycling rates, requires concerted effort and resources to be deployed, practical measure to actually deliver increased recycling. The RWS 2018 is likely to introduce measures on both local authorities and businesses to attempt to achieve the targets. However, it is likely that these measures will not cover all C&I waste, only those business wastes that are covered by the municipal waste definition.
28	**Would the scaling back of recycling targets affect any initiatives by waste collection authorities to achieve higher recycling rates?**
	The scaling back of the targets in the EPR is unlikely to influence the behaviours of the waste collection authorities. Waste collection authority initiatives are rarely driven by planning policy, but rather by nationally set requirements and local budgets. This is evidenced by the LACW recycling performance over the last few which would appear not to have been influenced by the recycling/composting targets set in the adopted KMWLP.
29	**Would the amended targets for C&I waste affect incentives to industry to achieve higher rates or recycling?**
	The proposed amendments to the C&I waste targets within the EPR are unlikely to affect incentives to industry to achieve higher rates of recycling. This is for three principal reasons: • The vast majority of waste producing businesses will be unaware of the targets within local planning policy documents; changes in the proposed targets are unlikely to influence businesses' decision-making criteria about whether to recycle their wastes. • Targets within the KMWLP have no statutory requirements for waste producing businesses. Consequently, they would not appear of any compliance registers associated with their Environmental Health and Safety policy (if they have one). • Business decision-making is generally drive by cost/compliance in the absence of specific regulatory recycling obligations.
30	**Has development of the Kemsley recovery facility affected the achievement of the existing planned recycling rates?**
	The Kemsley recovery facility is not yet fully operational and therefore cannot have had any effect on achieving the existing planned recycling rates. In addition: • Kemsley is not directly targeting LACW, and would not influence the LACW recycling performance; and • The current quality of data on C&I recycling is not good enough to identify any impacts on C&I recycling.

31	**What effect will the closure of the Rainham landfill facility be likely to have on the necessary provision for London's waste to be disposed of or treated in Kent?**
	In 2017, Rainham accepted 940kt of waste of which: • 513kt was LoW Chapter 17: Construction and Demolition Wastes (including Excavated Soil from Contaminated Sites); • 255kt was LoW Chapter 19: Wastes from Waste Management Facilities, Off-Site Waste Water Treatment Plants and the Preparation of Water Intended for Human Consumption and Water for Industrial Use; and • 120kt was Chapter 20: Municipal Wastes (Household Waste and Similar Commercial, Industrial and Institutional Wastes) including Separately Collected Fractions. Of the input 678kt was from London, 41.5kt was from Kent and 132kt was from Medway. Once the Rainham landfill facility closes the following wastes will require alternative management: • 350kt of waste from the eastern side of London (Barking & Dagenham, Bexley, Bromley, Greenwich, Havering, Newham and Redbridge), of which 150kt was non-hazardous; • 132kt from Medway, of which 78t was non-hazardous; and • 24kt of non-hazardous waste from Kent The approach within the EPR only allows for an additional 20ktpa; which is considered to be too limited based on the quantities of waste that will be displaced and require alternative management.
32	**What effect will this have in terms of Kent's waste that is currently sent to Rainham?**
	Approximately 24,000 tonnes of non-hazardous waste was deposited at Rainham from Kent in 2017.
34	**Does the treatment of waste from London affect the ability to achieve the recycling targets in the KJMWMS?**
	The treatment of waste from London is unlikely to affect LACW recycling performance due the small provision made and the fact that LACW management will be contracted discretely by Kent County Council and its constituent Waste Collection Authorities. The current quality of data on C&I recycling is not good enough to identify any impacts on C&I recycling. However, it would be reasonable to assume that C&I waste coming into Kent from London would add to the economies of scale of building and operating waste treatment facilities, such that this practice would encourage greater recycling within Kent.
Policy CSW5: Strategic Site for Waste	
35	**Please provide additional information regarding the possible change in government policy allowing for landfill of flue dust ash residues that is referred to.**
	The government policy referred to within the EPR is believed to be the '3x WAC' derogation (WAC: Waste Acceptance Criteria). Under Regulation 35 and Schedule 10 the Environmental Permitting Regulations 2010 (previous provision under Landfill (England and Wales) Regulations 2002 (as amended), where a waste does not meet the hazardous waste WAC for inorganic components, the EA can issue a derogation from WAC. The EA can issue a Permit with limit values of up to 3 times the relevant limit in the WAC for a specified waste stream, taking into account the characteristics of the landfill. This derogation is commonly referred to as the '3x WAC' derogation.

	In 2010, Defra issued 'A Strategy for Hazardous Waste Management in England'[1]. Within this strategy, there was a declaration that no additional '3x WAC' derogations should be issued, and those that were in place would be phased out over time. The timescale for phasing out the derogations was not detailed in the strategy, partly to allow for the development of alternative treatment or recovery plants to be designed and constructed to provide non-landfill disposal options. It was initially thought that the '3x WAC' derogations relating to APC residues would be removed from October 2015. However, in 2017 it was reported in the CIWM Journal that '*Defra Ministers had taken the decision not to remove the derogation that allows APCrs to be disposed in landfill at three times the standard waste acceptance criteria (3x WAC) threshold for hazardous landfill*. The reasons cited was a '*lack of alternative disposal solutions.'* Operators of eight landfill sites for hazardous waste in England hold Environmental Permits that allow them to accept certain toxic wastes that cannot comply with WAC specified in the EU Landfill Directive. WTI believes that any possible change in government policy is more likely to be about preventing the landfilling of APC residues.
36	**Should the last sentence of the first paragraph (regarding demonstration of equivalent capacity for treatment) still be included on the basis that it prioritises treatment at a higher level of the waste hierarchy?**
	WTI believes it would be sensible to retain this sentence, but further that this principle should be applied to all waste management capacity operating within Kent.
38	**Is the destination of the flue dust ash from Kemsley known?**
	This will be handled under a contract with Augean Ltd. The residue will be transported out of Kent to one of the Augean hazardous waste facilities for stabilisation.
40	**The second sentence of paragraph 6.4.1 states that increasing numbers of facilities for recycling, composting and anaerobic digestion as well as additional facilities for Energy from Waste (EfW) will be required. While a significant EfW facility has been provided, why is the rest of this sentence deleted in the Review document? Would the type of facilities referred to still be needed to drive a change in the way waste is managed?**
	As set out in WTI March 2018 and the accompanying annexes, WTI believes that the Waste Need Assessments undertaken to prepare the EPR have underestimated the amount of wastes, particularly residual wastes, within Kent that require treatment. A positive policy framework (including through the allocation of sites) is required to drive the development of new treatment capacity that will take waste out of landfill and enable management higher up the waste hierarchy, enabling a change in the way waste is managed. As set out at paragraph 2.3.9 of WTI March 2018, waste is a market-led commodity and new facilities will not be constructed unless there is demand for them, whether that be for the recovery of materials or energy. The risk of over-supply of waste treatment capacity is very low, and research consistently demonstrates that incineration works well alongside high rates of recycling.

[1] Department for Environment, Food and Rural Affairs, March 2010, *A Strategy for Hazardous Waste Management in England*

Policy CSW6: Location of Built Waste Management Facilities	
41	**Please set out the reasons for no longer progressing a Waste Sites Plan.**
	WTI has consistently objected to Kent's proposal to abandon progressing a Waste Sites Plan. As set out in WTI March 2018 and its Annexes (and WTI's previous submissions), the Waste Need Assessments undertaken for the EPR rely on a series of assumptions that result in the most conservative outcomes; the consequence of which is that policy proposed in the EPR contains little flexibility to positively bring forward required waste management capacity.
Policy CSW7: Waste Management for Non-hazardous waste	
43	**While the capacity requirements in Policy CSW7 have been deleted, should the envisaged processes, including recycling, in-vessel composting and anaerobic digestion still be included in order to encourage the movement of waste treatment up the waste hierarchy?**
	Clarity can be brought to policy by setting out the various types of waste treatment envisaged, which should include energy from waste in addition to the recycling and biological processes identified. Energy from waste should also be included so as to avoid residual wastes being disposed to landfill or exported as refuse derived fuel (RDF). However, it is also important for policy to remain technology neutral, and so it should not stipulate preference for one technology type over another, except with the aim of achieving the waste hierarchy. In addition, there should be some quantification of the level of new capacity to be provided, (albeit this would be appropriate simply within the supporting text rather than policy) as this will be required for monitoring purposes.

Comment

Agent	[redacted]
Email Address	[redacted]@hendeca.co.uk
Address	4 Witan Way Witney OX28 6FF
Consultee	[redacted]
Email Address	[redacted]@wtienergy.com
Company / Organisation	Wheelabrator Technologies Inc
Address	Portland House London SW1E 5BH
Event Name	Early Partial Review of the Kent Minerals and Waste Local Plan - Proposed Modifications
Comment by	Wheelabrator Technologies Inc (Mr Chris Ratcliffe - 1149589)
Comment ID	3
Response Date	07/01/20 17:26
Consultation Point	Early Partial Review Proposed Modifications (View)
Status	Submitted
Submission Type	Web
Version	0.1

Your contact details will be taken from the "My Details" section on your account. Please ensure this is up to date. Anonymous responses will not be accepted.

Are you responding as? . Local Business

To which parts of the proposed modifications does this representation relate? (modification ref no. or Sustainability Appraisal)

EPR/MM6

Do you consider the proposed modification to be?

Sound? . No

Legally Compliant? . Yes

Do you consider the proposed modification to be unsound because it is not?

. Positively Prepared
. Effective

If you consider the proposed modification to be unsound/not legally compliant, please explain why in detail in the box below. Please be as precise as possible:

This is the only modification proposed in regard to waste policy - an outcome that is both disappointing from a plan making perspective, but also demonstrates that the County Council has failed properly (so as to present positive policy that will be effective and flexible) to fully incorporate the waste hierarchy within the EPR. Critically, the EPR fails to recognise the benefits to be gained from the incineration of residual wastes. Energy recovery from residual wastes is a sustainable form of waste management and renewable/low carbon energy supply that should be encouraged at appropriate locations. It is recognised in national policy as a societal benefit.

Please set out what modification(s) you consider necessary to make the Plan legally compliant or sound.

As we have sought to make clear in all our responses (written and oral) WTI supports delivery of the waste hierarchy and increased recycling. However, the evidence base used to underpin the EPR is flawed and fails to recognise the full extent of wastes that we believe are likely to require sustainable waste management within Kent. Our proposed modifications have previously been set out to you.

Do you wish to be notified about future stages in Plan preparation? Yes

hendeca

WHEELABRATOR TECHNOLOGIES INC

RESPONSE TO PARTIAL REVIEW OF THE KENT MINERALS AND WASTE LOCAL PLAN

hendeca ltd
28 March 2018

1. Introduction

1.1 This Response

1.1.1 This consultation response is submitted by hendeca ltd on behalf of Wheelabrator Technologies Inc (WTI). It is made in response to the consultation undertaken by Kent County Council (KCC) on the proposed Partial Review of the Kent Minerals and Waste Local Plan 2013-30 (the Partial Review, or Partial Review Consultation).

1.1.2 WTI has chosen to make this response in report form rather than on-line. This approach enables WTI to make both overarching comments and to respond to specific changes to the Minerals and Waste Local Plan proposed in the Partial Review. It also allows WTI to submit its specific critical review of the waste need assessments undertaken for KCC. These reviews identify significant tonnages of residual waste that are potentially not recognised in the evidence base of the Partial Review.

1.2 Waste capacity assessment reports

1.2.1 Over the summer of 2017, KCC undertook consultation on six waste capacity assessment reports, all prepared by BPP Consulting and dated June 2017. WTI formally responded to those documents (please refer to WTI's response dated August 2017 for the full details). That response and the comments made to the Environment and Transport Cabinet Committee (letter dated 24 November 2017) remain a part of WTI's submission.

1.2.2 Although it is not made entirely clear on the KCC website, these reports have been updated to accompany the Partial Review Consultation. For clarity, it is these latter documents that have been referred to in preparing this response from WTI, with the two key documents being:

- Kent Waste Needs Assessment 2017, Updated Management Requirement for Local Authority Collected Waste Generated in Kent, version 1.3, issued 18 December 2017 (KCC LACW Need Assessment); and
- Kent Waste Needs Assessment 2017, Commercial and Industrial Waste Generated in Kent Management Requirement, version 1.2, issued 17 November 2017 (KCC C&I Need Assessment).

1.2.3 Together these are referred to as the KCC Need Assessments within this Response.

1.3 Contact details

1.3.1 WTI would be pleased to discuss this Response with KCC as the authority further develops its planning policy.

1.3.2 Please contact either Chris Ratcliffe or Kirsten Berry on the details provided:

- Chris Ratcliffe, WTI. cratclif@wtienergy.com
- Kirsten Berry, hendeca ltd. kirsten@hendeca.co.uk

2. Overarching Consultation Response

2.1 Introduction

2.1.1 In its response dated August 2017, WTI observed that KCC was moving rapidly away from a waste management policy approach that was recognised to be positive and proactive, to one that seems intent on thwarting the development and delivery of appropriate and necessary new infrastructure. Material concerns were made in regard to the credibility of the evidence used to justify this change in approach.

2.1.2 It had been hoped that there would be an opportunity to discuss these concerns with KCC prior to the formal Partial Review Consultation. Unfortunately that has not been able to happen.

2.1.3 WTI's substantial concern regarding the evidence base, principally the KCC Waste Need Assessments, remain. The Assessments have been little modified since the June editions, they continue to be difficult to read, and they continue to contain some material areas of concern.

2.1.4 Consequently, WTI considers that the analysis of future waste management demands undertaken to date is not robust and that the Partial Review is at risk of being unsound.

2.1.5 The significant weaknesses in the evidence base leads the Partial Review into an approach that is considered will fail to provide the infrastructure necessary in Kent to sustainably manage its waste arisings and to benefit from a supply of renewable/low carbon energy.

2.2 The Evidence Base

2.2.1 Further to WTI's previous comments, the Company continues to raise concerns with regard to the evidence base used to underpin the Partial Review.

2.2.2 This Response is supported by three Reviews that have been undertaken of the KCC Waste Need Assessments:

- the WTI LACW Review, which reviews the KCC LACW Need Assessment in some detail, identifying a shortfall in the LACW arisings forecast and future residual waste management demand(Annex A);
- the WTI C&I Review, which identifies substantial elements of C&I waste potentially not accounted for in the KCC C&I Need Assessment (Annex B); and
- the WTI RDF Review, which identifies a substantial amount of refuse derived fuel generated in Kent that is subsequently exported out of the UK (Annex B). This material could be used within Kent, bringing economic, environmental and social benefits.

2.2.3 The WTI Reviews identify wastes that are believed to be generated within Kent, but not currently recognised within the KCC Waste Need Assessments. These additional wastes are expressed in ranges of tonnes, this is a preferred approach as it recognises the inherent uncertainty that exists with waste data. The size of the those ranges, extending over 100,000 tonnes, readily demonstrates the range of flexibility that should be built into any resultant local plan.

2.2.4 That the KCC Waste Need Assessments are generally at the bottom of those ranges, also demonstrates that a highly conservative approach has been taken that is not credible.

Consequently, the Partial Review fails to provide a robust, positive or flexible strategy for waste management going forward and is at risk of underproviding necessary infrastructure.

Local Authority Collected Waste

2.2.5 Local Authority Collected Waste (LACW) is the only waste stream supported by reliable and comprehensive data. Forecasting of this waste stream should be fairly straightforward and readily accomplished. Unfortunately, the KCC LACW Need Assessment is poorly prepared and underestimates the amount of residual LACW remaining to be diverted from landfill.

2.2.6 As demonstrated in the WTI LACW Review, the KCC LACW Need Assessment:

- does not use the latest available data;
- is inconsistent with national guidance;
- fails to develop reasonable and justified forecast assumptions for future waste arisings; and
- fails to consider local authority collection systems and performance.

2.2.7 The WTI LACW Review comprehensively assesses future LACW arisings and consequent management need, using a method that is consistent with national guidance. Key conclusions from this work are that:

- Without changes to collection services, the overall level of LACW recycling and composting in Kent over the next 2 to 5 years is unlikely to exceed 50%. This may explain why the LACW recycling rates are proposed to be reduced in the Partial Review (from 60% to 55%).
- The KCC LACW Need Assessment uses a growth rate equivalent to the change in household waste per household, but fails to go on to factor in housing growth. The forecast in the KCC LACW Need Assessment is equivalent to a 1% per annum reduction on household waste per household up to 2030/31. This lack of growth is not substantiated by the current data.

2.2.8 The WTI LACW Review concludes that the estimate of residual LACW presented in the KCC LACW Need Assessment (317,968 tonnes) is at the bottom of a reasonable range of forecasts. Such an outcome would require both low growth in LACW and high levels of recycling and composting, neither of which are substantiated by the current evidence.

2.2.9 In short, the **WTI LACW Review identifies 88,000 to 193,000 additional tonnes of LACW arising and up to an additional 130,000 tonnes of residual LACW that should be diverted from landfill**.

2.2.10 Failing to recognise this tonnage means that the Partial Review is at risk of leaving Kent short on important infrastructure provision.

Commercial and Industrial Waste

2.2.11 Commercial and industrial (C&I) waste data is recognised to be quite poor and there are limits to the level of credibility that can be placed on elements of it. This situation makes it even more important for this waste stream to be considered comprehensively, and to make best use of all the available data, such that a robust understanding of arisings can be achieved.

2.2.12 Unfortunately, the KCC C&I Need Assessment does not use the latest available data and is not considered to be either comprehensive or robust. The resulting conclusions potentially

significantly underestimate the amount of waste arising and remaining to be diverted from landfill.

2.2.13 The additional tonnages identified in the C&I and RDF Reviews are not additive; they are not added together to make one grand total. Such an approach would be inappropriate. However, they are additive to the LACW identified and they do demonstrate the extent of wastes/RDF that should be planned for.

'Not Codeable' Waste

2.2.14 As demonstrated in the WTI C&I Review (Annex B), the KCC C&I Need Assessment appears not to consider 'Not Codeable' wastes; those wastes that are recorded in the Environment Agency database (Waste Data Interrogator or WDI) but not referenced to a single waste planning authority.

2.2.15 The WTI C&I Review **identifies an additional 0 to 270,000 tonnes of C&I wastes** that are 'Not Codable' but expected to be generated in Kent; these wastes do not appear to be addressed in the KCC C&I Need Assessment.

Management Route Assumptions

2.2.16 As demonstrated in the WTI C&I Review, the KCC C&I Need Assessment makes unsubstantiated assumptions in relation to the management route for C&I waste. WTI is not aware of any evidence that suggests the C&I waste stream reaches 70% recycling, and requests that the evidence relied upon is made clear.

2.2.17 The WTI C&I Review **identifies an additional 28,000 to 141,000 tonnes of residual C&I wastes** that are likely to be require diversion from landfill as a result of the highly aspirational level of recycling assumed within the KCC C&I Need Assessment.

Export of refuse derived fuel

2.2.18 The WTI RDF Review identifies that between 2015 and 2017, just under 9 million tonnes of refuse derived fuel (RDF) was exported from the UK to mainland Europe for incineration in energy recovery facilities. This practice is recognised to be in accordance with the European Waste Framework Directive, albeit means that the UK is missing out on the use of a renewable/low carbon energy resource.

2.2.19 However, this practice is important in plan making terms, particularly for Kent. The UK's decision to leave the EU may well restrict its access to this capacity, either as a result of legislative change, logistical challenges, financial costs or a combination of each. Around 50% of all UK export of RDF and solid recovered fuel originated in the south east[1]; this is a matter of local distinctiveness that KCC should be positively addressing in its development plan.

2.2.20 The WTI RDF Review estimates that **198,532 tonnes of RDF was manufactured in Kent,** with between **100,000 to 188,000 tonnes from waste generated in Kent or the South East, and exported outside the UK**. If access to facilities on the European mainland is constrained, this places an additional demand on recovery capacity within Kent. This demand should be recognised in the Partial Review.

[1] Mind the gap 2017 – 2030, UK residual waste infrastructure capacity requirements, Suez, 2017. http://www.sita.co.uk/wp-content/uploads/2017/09/MindTheGap20172030-1709-web.pdf

Conclusions

2.2.21 WTI has made previous representations on its concerns with the KCC Waste Need Assessments. These concerns have not been addressed to date.

2.2.22 During the Environment and Transport Cabinet Committee meeting (30 November 2017) a response made by the Planning Officer to the Committee stated that whilst these concerns had been raised, they did not present an alternative future level of need in tonnes. The WTI Reviews provided at Annex A and B are not submitted as in-depth need assessments for waste management in Kent; this is a task for KCC in preparing its development plan policy. However, they are submitted to respond to the comment that specific tonnages have not been identified to date.

2.2.23 The WTI Reviews identify substantial tonnages of waste that do not appear to be recognised in the KCC Waste Need Assessments, demonstrating the potential for error in the work undertaken to date in preparation of the Partial Review.

2.3 Test of Soundness

2.3.1 Paragraph 182 of the National Planning Policy Framework (2012) sets out the following tests of soundness, these are substantially repeated in the March 2018 draft:

- Positively prepared – the plan should be prepared based on a strategy which seeks to meet objectively assessed development and infrastructure requirements, including unmet requirements from neighbouring authorities where it is reasonable to do so and consistent with achieving sustainable development;
- Justified – the plan should be the most appropriate strategy, when considered against the reasonable alternatives, based on proportionate evidence;
- Effective – the plan should be deliverable over its period and based on effective joint working on cross-boundary strategic priorities; and
- Consistent with national policy – the plan should enable the delivery of sustainable development in accordance with the policies in the Framework.

2.3.2 It is considered that the Partial Review fails each of these tests.

2.3.3 **Positively prepared.** The Partial Review would fail to provide a policy framework for new residual waste management development in Kent. This is not a positive approach and means there is no strategy for the delivery of infrastructure that forms a key element of sustainable development.

2.3.4 **Justified.** As WTI has previously commented, this approach is based on a poor evidence base that fails to consider reasonable alternatives or to provide a correct and comprehensive assessment of future needs. The Partial Review is not the most appropriate strategy based on a proportionate evidence base.

2.3.5 **Effective.** The Partial Review presents the planning policy intended to apply to waste management in Kent for at least the next 10 years. Elements of the Partial Review are not believed to be deliverable over the plan period (for example high recycling rates) and would fail to deliver a reasonable expectation of future waste management demand (i.e. residual

waste treatment). The strategy provides no flexibility over the plan period and is likely to fail to be effective in delivering the required infrastructure.

2.3.6 **Consistent with national policy.** Neither the evidence base nor the resultant Partial Review are consistent with national policy, for example through the application of unsubstantiated recycling rates and through the failure to provide a positive policy framework to enable appropriate development that should include residual waste management infrastructure.

2.3.7 These concerns interlink across a number of WTI's objections to the Partial Review.

2.3.8 The Kent Minerals and Waste Local Plan was only adopted in July 2016, less than two years ago. This is very little time to have undertaken any reasonable monitoring of the Plan or to understand waste arisings over time. It would not be significant to policy that the Kemsley Sustainable Energy Plant has been approved if waste arisings across Kent have also increased and recycling rates remain constant; there would remain a need for new residual waste management infrastructure and the adopted policy would remain relevant.

2.3.9 The Partial Review seems to be a response to a fear of over-supply in waste management provision in Kent. Not only does this fear risk failing to deliver infrastructure recognised as a key component of sustainable communities, it is unsubstantiated. Waste is a market led commodity. Residual waste facilities require substantial finance to build; this represents a real investment into an area, but also a funding challenge for the developer. To gain the required finance it is necessary to demonstrate to lending institutions that there is waste available, ideally for more than the nominal throughput of any proposed plant. In short, no waste management company is going to build a plant it is not going to be able to operate; the risk of oversupply is subsequently minimal, and self-regulated by this commercial reality.

2.3.10 Paragraph 157 of the National Planning Policy Framework expects local plans to '*be drawn up over an appropriate time scale, preferably a 15-year time horizon, take account of longer term requirements, and be kept up to date*'. The Partial Review is not properly informed by up to date evidence and presents a significant reaction to just one factor; the approval and construction of just one facility. It fails to take account of longer term infrastructure needs within Kent.

2.3.11 Apart from potentially continuing to send waste to landfill, this approach means that Kent will not benefit from all the other benefits, including: private inward investment; job creation; supply of renewable/low carbon energy (as power and heat) that residual waste management facilities bring to underpin sustainable communities.

2.3.12 The Kent Minerals and Waste Local Plan, and the Partial Review, already appropriately recognise that the movement of waste should not be restricted through catchment areas. Waste from Kent is demonstrated to be exported to outside the UK for beneficial recovery and the same principle can be applied to wastes moving into Kent. Not only would Kent directly benefit from new plant efficiently recovering energy from those wastes generated within, but currently exported out of county, so these benefits can also be gained from other waste coming into Kent for energy recovery.

2.3.13 In 2015, London exported 11.4 million tonnes of waste, representing 60% of its total waste arisings. The Mayor has an aspirational target to be 100% self-sufficient by 2026 but it remains to be seen if this will be achieved. Historically, Medway has prepared planning policy jointly with Kent, but its emerging new Local Plan will address waste management needs exclusively to the unitary authority. Whilst the Medway Council website indicates that the new

Local Plan would be adopted by 2019, the most recent document available to view is the Development Options report, published in 2016. This document recognises that the projected growth in the area will bring added pressures to waste management facilities in Medway, and makes a commitment to assess the need for replacement and additional capacity, but there is no strategy for its delivery currently available. It remains to be seen when that planning strategy will be delivered and how effective it will be.

2.3.14 National Planning Policy for Waste[2] makes clear (in its opening paragraph) that waste management makes a positive contribution to sustainable communities, sustainable development and resource efficiency.

2.3.15 Reference to NPS EN-1[3] makes clear how the delivery of energy infrastructure is a key element of well-functioning places.

'*The Government's wider objectives for energy infrastructure include contributing to sustainable development and ensuring that our energy infrastructure is safe. Sustainable development is relevant not just in terms of addressing climate change, but because the way energy infrastructure is deployed affects the well-being of society and the economy. For example, the availability of appropriate infrastructure supports the efficient working of the market so as to ensure competitive prices for consumers. The regulatory framework also encourages the energy industry to protect the more vulnerable*.'

2.3.16 Efficient energy recovery facilities, using waste as a fuel, are well established as a key component of sustainable communities; beyond diverting waste from landfill and meeting climate change challenges, such plant bring energy infrastructure and societal benefit.

2.3.17 The Kemsley Sustainable Energy Plant is under construction, and there is sufficient space on site to develop another recovery facility. Such development would optimise use of the site; an excellent location unconstrained by ecological designations with both good road access and potential for steam offtake.

2.3.18 Kent is ideally placed to make a sustainable contribution to waste management in the South East of England, delivering the development required to meet cross-boundary priority issues and enabling Kent to gain from the sustainable development benefits.

[2] National Planning Policy for Waste, Department for Communities and Local Government, October 2014

[3] Overarching National Policy Statement for Energy EN-1, July 2011

3. Response to specific sections of the Partial Review

3.1 Introduction

3.1.1 This section of WTI's Response addresses particular paragraphs and policy of the Partial Review.

3.1.2 For ease of reference, it is subdivided into the separate sections of the Partial Review and cross references are provided throughout

3.1.3 This Response does not identify minor editorial matters, lack of paragraph numbers etc. It focusses on the content of the changes proposed to be achieved through the Partial Review.

3.2 Section 2: Background

3.2.1 **Paragraph 2.3.** There is a footnote reference to the 'BPP Consulting Kent Waste Needs Assessment 2017'. There were two versions of waste needs assessments, both prepared by BPP Consulting and both dated 2017. This reference should be more explicit to the evidence base documents being relied upon. Similar footnotes and text references appear through the Partial Review and would benefit from clarification.

3.2.2 **Paragraph 2.17.** Reference is made to the local plans of East Sussex and Brighton & Hove and Oxfordshire; their only credibility being that have been '*adopted in recent times*'. There is no discussion of whether waste arisings or management in these authorities are comparable to Kent, nor recognition that BPP Consulting was also involved in the preparation of these local plans.

3.3 Section 3: Proposed Changes to Waste Management Policies

Waste Hierarchy

3.3.1 **Paragraph 6.2.3** simply refers to '*the most recent assessment*.' This is insufficient for clarity of the Partial Review; the evidence base relied upon should be more clearly set out.

3.3.2 **Paragraph 6.2.4, first bullet.** WTI believes that the first bullet should not be deleted, and that a Waste Sites Plan should be prepared. WTI has demonstrated that there remains a need for new residual waste management infrastructure within Kent and consequently a need for the Waste Sites Plan.

3.3.3 **Paragraph 6.2.4, second bullet.** This bullet neither makes sense nor is sound policy. The bullet enables extensions to existing facilities but without an increase in overall throughput. Firstly, whilst operational efficiency may be a desired aim, a facility is only likely to be extended to enable a greater throughput to be achieved. If the site is appropriate in principle for waste management use, which is must be to have gained planning permission in the first place, then it is inappropriate in policy terms to simply limit its throughput. This should be a matter determined on a case-by-case basis. Benefits may readily be achieved through an increased throughput, for example increased recycling, and result in no unacceptable adverse impacts.

3.3.4 **Paragraph 6.2.5.** The proposed edits are not justified and risk Kent facing a lack of treatment capacity, resulting in continued reliance on landfill, or export to Europe, of residual mixed

non-hazardous waste. Simply referring to increased recycling targets within planning policy does not achieve higher recycling; this outcome also needs concerted effort and resources, from both the public and private sectors. Whilst the intent, to drive waste up the hierarchy is laudable, the consequent, rigid application of poorly considered targets will result in Kent failing to deliver a sustainable waste management infrastructure.

Net Self-sufficiency and Waste Movements

3.3.5 **Deleted Paragraph 6.3.2** should not be deleted; it remains relevant to unpack the meaning of net self-sufficiency. The principles of self-sufficiency and proximity are often bound up together, not least at Article 16 of the Waste Framework Directive 2008 (the WFD). The WFD seeks to deliver a network of waste management facilities to ensure that the European Community, as a whole, is self-sufficient in waste disposal and the recovery of mixed municipal wastes. This is an important principle and avoids wastes being disposed of outside of the European Union where appropriate facilities may not operate sufficient to ensure waste management occurs without endangering human health and harming the environment.

3.3.6 To this end, Article 16(3) requires that:

'*The network shall enable waste to be disposed of or waste referred to in paragraph 1 to be recovered in* ***one of the nearest appropriate*** *installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health*.' (my emphasis)

3.3.7 The wording '*recovered in one of the nearest appropriate installations*' is important. The concept involves elements other than just distance: the installation chosen for any tonne of waste may be *one of several*; and it cannot be any installation, it needs to be *an appropriate one*.

3.3.8 **Deleted Paragraph 6.33.** The text remaining within this unnumbered paragraph is agreed with, not least as it recognises the practical delivery of self-sufficiency and the proximity principle. This text recognises that wastes may continue to move into and out of Kent for management; so long as the installation is appropriate this is a satisfactory outcome.

3.3.9 **Revised Paragraph 6.33 and revised policy CSW 4.** Paragraph 6.33 describes the targets presented in the revised policy CSW 4 as '*ambitious (but realistic) goals*'. As is explained in the WTI LACW and C&I Reviews, these targets are not demonstrated to be achievable, and consequently are considered to be unsound. There is little credible data to properly understand the level of recycling/composting achieved in the C&I waste stream. Applying a recycling/composting target as high as 70% and consequently restricting the development of residual waste management facilities is unlikely to deliver the waste hierarchy.

3.3.10 Further, revised policy CSW 4 now proposes a reduced recycling rate for LACW (55%) than was previously set out in policy CSW 7 (60% by 2025). This is an interesting diminution of the recycling/composting rate expected to be achieved within the waste stream that KCC has most control over.

Strategy site for waste

3.3.11 **Revised Paragraph 6.4.1.** '*Enabling the change in perception of waste from being something that has to be disposed to something that can be used as a resource will be helped by the development of such additional capacity*.' This sentence is made in reference to

composting and anaerobic digestion facilities; however it is equally relevant to other waste management facilities including incineration facilities that recover heat and power.

Location of built waste management facilities

3.3.12 **Deleted Paragraph 6.5.4 should be retained.** As is demonstrated by the WTI LACW and C&I Reviews, when the need analysis is reviewed there is readily identified to be a significant future need for new waste management capacity in Kent, not all of which can be delivered by recycling/composting processes. The deleted paragraph recognises that sites should be protected from other development to allow that essential waste management infrastructure to come forward. Sites should be identified to enable residual waste to be diverted from landfill.

3.3.13 **Deleted Paragraph 6.5.8 should be retained** for similar reasons. Kent should seek to enhance the network of waste management infrastructure available across the county and to seek the benefits that can be gained from such an approach. For example, incineration with energy recovery facilities provide substantial inward investment, jobs and a supply of renewable/low carbon power and/or heat.

Waste management for non-hazardous waste

3.3.14 **Revised Paragraph 6.7.3.** As previously stated, and demonstrated in the WTI LACW and C&I Reviews, the waste need assessments undertaken in 2017 for KCC are not considered to be robust. This paragraph should continue to refer to a need for new residual waste management capacity, which would reasonably include incineration with energy recovery.

3.3.15 **Revised Paragraph 6.7.5.** The edits to this paragraph has meant that the commitment to a target tonnage has been lost. This should be reinstated for clarity and for monitoring purposes.

3.3.16 **Policy CSW 7** should be reinstated. The policy recognises that the Waste Sites Plan would be prepared to '*meet identified needs as a minimum…*'. This wording appropriately incorporates an element of flexibility into the plan; which is lost with its deletion. Losing this element of the policy also means that the plan makers are failing to deliver their own policy, they are making no provision for a reasonable understanding of future waste management requirements.

3.3.17 **Deleted bullet point 3** '*energy recovery is maximised (using both heat and power)*' should be retained), not least policy CSW 6 still refers to energy recovery facilities and deleted paragraph 6.8.2 requires the energy gained from additional recovery capacity to be harnessed. It is recognised that the Partial Review does not promote incineration with energy recovery, but it does promote anaerobic digestion; a technology that recovers gas usable for both heat and power, as well as digestate. This energy recovery should be maximised as it is a key method for anaerobic digestion to contribute to meeting climate change commitments.

Other recovery facilities for non-hazardous waste

3.3.18 **Deleted Paragraph 6.8.1** should be retained. A fundamental aim of the Partial Review should continue to be to reduce the amount of waste sent to landfill. As is demonstrated by the WTI LACW and C&I Reviews, this will require additional residual waste management capacity. Even if KCC does not agree with the conclusions presented in the WTI LACW and C&I Reviews, the Partial Review should retain flexibility and provide a policy framework for

such facilities, enabling the waste management sector to respond appropriately when the demand is recognised.

3.3.19 **Policy CSW 8** should be reinstated and based upon a credible and comprehensive assessment of future waste management needs in Kent.

4. Conclusions

4.1 Introduction

4.1.1 WTI has engaged with KCC throughout its preparation of the Partial Review and consistently expressed substantial concern with the evidence base. To date these concerns have not been addressed.

4.2 Evidence Base

4.2.1 In this Response, WTI has presented a more detailed review of the KCC Waste Need Assessments (as published in November and December 2017). The WTI LACW, C&I and RDF Reviews identify:

- 88,000 to 193,000 additional tonnes of LACW arising and up to an additional 130,000 tonnes of residual LACW that should be diverted from landfill;
- 0 to 270,000 additional tonnes of C&I wastes that are 'Not Codable' but expected to be generated in Kent;
- 28,000 to 141,000 additional tonnes of residual C&I wastes that are likely to be require diversion from landfill; and
- 198,532 tonnes of RDF manufactured in Kent, of which 100,000 to 188,000 tonnes was from waste generated in Kent or the South East, and exported outside the UK.

4.2.2 Recognising the inherent uncertainties in waste data, and in forecasting generally, WTI has identified a range of tonnages; an approach generally considered as best practice in waste forecasting.

4.2.3 The WTI Reviews provided at Annex A and B are not submitted as in-depth need assessments for waste management in Kent; this is a task for KCC in preparing its development plan policy. They are submitted to respond to the comment that specific tonnages have not been identified by the waste industry to date.

4.2.4 The extent of the quantified ranges indicates both:

- the extent of flexibility that should be built into a local plan, but which is not present in the Partial Review; and
- the lack of robustness in the KCC Waste Need Assessments, the conclusions of which are consistently at the lower end of the WTI ranges.

4.3 Policy Reality

4.3.1 The result of the approach pursued in the KCC Waste Need Assessments is that the Partial Review fails the tests of soundness. There is no strategy for the recovery of residual waste, no flexibility or robustness within the plan, and a consequent risk of failure in the provision of the infrastructure necessary to deliver sustainable communities in Kent.

4.3.2 The reality of the unsubstantiated low growth and high recycling assumptions relied upon in the KCC Waste Need Assessments is a lack of waste management infrastructure in Kent. Simply forecasting less waste doesn't make it happen. Relying on those calculations to

conclude that no new capacity is required simply means that the resultant strategy is not able to drive where that required infrastructure should be provided; a core objective of any local plan.

4.3.3 Appropriate waste management is widely recognised in national policy to deliver economic, environmental and societal gain. The approach set out in the Partial Review will restrict Kent's access to all these benefits.

4.4 Next Steps

4.4.1 WTI believes that the waste policy of the adopted Minerals and Waste Local Plan remains relevant and should not be changed. There is demonstrated to be a continued need for residual waste management and consequently a Waste Sites Plan should be prepared so that KCC can direct where that development should be located.

4.4.2 WTI is concerned that the approach set out in the Partial Review is built upon an evidence base that is not considered to be credible. The Partial Review should be abandoned, or in the very least deferred until a more credible assessment of future waste management need is undertaken.

4.4.3 WTI remains open to discuss these concerns further with KCC.

hendeca

hendeca ltd
9601610 **company number**
4 Witan Way, Witney, Oxfordshire, OX28 6FF **registered address**

hendeca

WHEELABRATOR TECHNOLOGIES INC

RESPONSE TO PARTIAL REVIEW OF THE KENT MINERALS AND WASTE LOCAL PLAN

Annex A - WTI LACW Review

hendeca ltd
March 2018

1. Introduction

1.1 The WTI LACW Review

1.1.1 Dated 18 December 2017, KCC issued document titled 'Kent Waste Needs Assessment 2017, Updated Management Requirement for Local Authority Collected Waste Generated in Kent', version 1.3 (KCC LACW Need Assessment).

1.1.2 The KCC LACW Need Assessment is a key area of concern in the evidence base prepared to underpin the Partial Review. This report presents the WTI LACW Review, a comprehensive need assessment for LACW generated in Kent, which conforms to national guidance.

1.1.3 The following tasks have been undertaken:

- discussion of forecasting methodologies, making clear the correct way to undertake such an assessment and where the KCC LACW Need Assessment is inconsistent with national guidance (Section 2);
- data gathering/collation, including housing forecasts (Section 3);
- review of local authority systems and performance, to provide information on what is currently being achieved and enabling a comparison to be made against the treatment route forecasts within the KCC LACW Need Assessment (Section 4);
- scenarios of waste growth analysis based on the analysis of Kent's LACW data and subsequent forecasts of LACW arisings (Section 5); and
- conclusions of the resultant LACW management need (Section 6).

2. LACW Forecasting Methodologies

2.1 Introduction

2.1.1 Forecasting local authority waste arisings can be complex, with future waste arisings primarily linked to two main factors:

- the state of the economy; and
- changes in household numbers.

2.1.2 However, there are several policy and regulatory initiatives designed to impact on future waste generation, including:

- producer responsibility initiatives for packaging, recently extended to other products, e.g. batteries, electrical goods and electronic equipment and vehicles;
- waste prevention initiatives (e.g. light-weighting of packaging within industry and commerce) and national and local campaigns to encourage the public to use food and resources more efficiently and to reduce the waste they generate;
- possible effects of end-markets for recycled materials; and
- increased collections and services for recycling and composting.

2.1.3 To enable a reasonable approach to work through these variables, guidance documents have been prepared by national government and resource management organisations. Those referenced in this Review are:

- Defra's A Practice Guide for the Development of Municipal Waste Management Strategies, 2005
- National Planning Practice Guidance: Waste, 2014
- WRAP's Recycling Managers Training Programme, 2004-2014

Defra's A Practice Guide for the Development of Municipal Waste Management Strategies (Defra's MWMS Practice Guide)

2.1.4 Defra's MWMS Practice Guide incorporates a series of Information Sheets; Information Sheet 8 addresses waste forecasting.

2.1.5 Information Sheet 8 highlights the need to analyse previous trends, where possible considering different parts of the waste stream e.g. collected household, trade waste etc. It next describes the process of developing the *Baseline Forecasts,* which can then be adjusted to take account of waste prevention and reuse initiatives.

2.1.6 Box 1 reproduces the process for preparing a baseline forecast, as set out in Information Sheet 8.

Box 1 Defra, MWMS Practice Guide, Information Sheet 8

Baseline Forecasts
Authorities should prepare a range of different forecasts for each waste stream and for each authority and select a central, best estimate forecast for use in strategy preparation.

These growth profiles should take account of:

- projected changes in waste per household (based upon analysis of previous trends, as discussed above);
- projected changes in population and household numbers (the local development framework, or input from planners regarding the currency of forecasts, should inform forward projections). This is particularly important for those areas where major new housing developments are expected;
- rate of development and economic growth.

Authorities should incorporate sensitivity analysis (high or low growth) around the best estimate and should keep this in mind when considering waste management capacity needs.

National Planning Practice Guidance: Waste

2.1.7 National Planning Practice Guidance on waste (NPPG: Waste) provides information in support of the implementation of waste planning policy. It includes guidance on how waste planning authorities should forecast municipal waste arisings when preparing growth profiles; this is reproduced in Box 2.[1]

Box 2 National Planning Practice Guidance: Waste

How should waste planning authorities forecast waste arisings?
Waste planning authorities should anticipate and forecast the amount of waste that should be managed at the end of the plan period. They should also forecast waste arising at specific points within the plan period, so as to enable proper consideration of when certain facilities might be needed. However, the right balance needs to be made between obtaining the best evidence to inform what will be necessary to meet waste needs, while avoiding unnecessary and spurious precision.

Paragraph: 028 Reference ID: 28-028-20141016

How should waste planning authorities forecast future municipal waste arisings?
Forecasts of future municipal waste arisings are normally central to the development of Municipal Waste Management Strategies.

It will be helpful to examine municipal waste arisings according to source (i.e. household collections, civic amenity site wastes, trade waste etc). This may allow growth to be attributed to particular factors and to inform future forecasts.

[1] https://www.gov.uk/guidance/waste accessed 3rd February 2018

A 'growth profile', setting out the assumed rate of change in waste arisings may be a useful starting point for forecasting municipal waste arisings. The growth profile should be based on 2 factors:

- household or population growth; and
- waste arisings per household or per capita.

Paragraph: 029 Reference ID: 28-029-20141016

How is a growth profile prepared?
A growth profile is prepared through a staged process:

- calculate arisings per head by dividing annual arisings by population or household data to establish short- and long-term average annual growth rates per household and
- factor in a range of different scenarios, e.g. constant rate of growth, progressively lowering growth rates due to waste minimisation initiatives.

The final forecast can then be modelled with scenarios based on the long- and short-term rate of growth per household, together with household forecasts.

Paragraph: 030 Reference ID: 28-030-20141016

WRAP Recycling Manager's Training Programme

2.1.8 The Training Manual supporting the Recycling Manager's Training highlights two main methods for estimating future arisings, these are summarised in Box 3.

Box 3 WRAP, Recycling Manager's Training

Method 1: Trends in past arisings
Comparison of the annual change in waste arisings over a number of years allows an estimate of the annual growth to be determined. This growth rate can then be applied to the current arisings to determine the likely future levels.

This method is calculated by:

1. **Collecting** historical waste arisings data (eg for the last five years);
2. **Obtaining** a breakdown if possible (household, non-household);
3. **Identifying** any anomalies;
4. **Selecting** an appropriate period over which the growth rate will be based; and
5. **Calculating** the growth rate.

For most authorities, historical waste arisings figures show that growth has not been linear (eg 1000 tonnes per annum every year) but compound, i.e. increasing by a larger tonnage each year (eg 1000 tonnes in the first year, 1100 tonnes in the second year and so on).

The calculation for this is:

Year 1 = Year 1 total
Year 2 = Year 1 total + (x% of Year 1 total)
Year 3 = Year 2 total + (x% of Year 2 total)

One drawback of this method is not understanding the reasons for past growth rates and hence basing future projections solely on past trends or events that may not be significant in the future (see Section 3.2.1 below).

Method 2: Trends in waste generated per household combined with growth in households
Comparison of the annual change in average waste generated per household allows the trend in waste generation to be estimated. An appropriate coefficient can then be determined and used to predict future arisings based on the total number of households. The estimated output per household (in kg per household per annum) is multiplied by future housing estimates in each year to predict the total future arisings.

This method requires both historic housing data and future estimates of household numbers. It enables waste arisings to be forecast on the basis of changes in the number of households and other factors.

Issues to consider in trend analyses

Waste output can be expected to increase, if households (and population) are projected to grow. However, economic growth and changing consumption habits will also influence waste production. Therefore the two key influences on waste arisings are:

- household (and population) growth which results in an increase in total household waste arisings; and
- changing consumption patterns which may lead to an increase in per capita or per household waste output.

In addition, there are several European and other initiatives designed to impact on future waste streams (see also Policy and Legislation Module), including:

- producer responsibility initiatives for packaging, recently extended to other products, eg batteries, electrical goods and electronic equipment, vehicles;
- waste minimisation initiatives (eg light-weighting of packaging) within industry and commerce;
- possible effects of end-markets for recycled materials; and
- local initiatives to promote waste recovery and recycling (eg introducing free bulky waste collections will increase the tonnage of waste collected at the kerbside by a local authority, but may reduce the quantity of these items deposited at HWRC).

Therefore, when selecting long-term growth (or reduction) rates:

- make allowance for potential reduction in waste growth, as a result of the factors described above;
- consider factors that have, or will, distort trend analysis such as a change of collection systems, legislation (eg Landfill Tax), seasonal factors (eg exceptionally dry years result in lower levels of garden waste) and changes resulting from local government reorganisation; and
- consider the elements of the waste stream to be included or excluded in the trend analysis to ensure consistency (eg exclusion of trade waste/sweepings).

2.2 Discussion

2.2.1 All three methods are based on the same principles i.e:

- analyse the **trends in waste generation** per capita or per household;
- the analysis should **consider different elements** of the waste stream;
- develop **a range of growth** profiles[2] considering projected changes in household / population and economic growth;

2.2.2 The KCC LACW Need Assessment has a number of areas of inconsistency and weakness when compared to the above national guidance on preparing waste forecasts:

1. It does not provide a clear analysis of the trends in waste generation per household and does not provide the actual tonnages (other than graphically) between years 2008/09 and 2015/16, so the quoted percentage changes cannot be calculated from the information provided. This is a general issue as the base data is not provided to allow it to be validated and subsequent calculations to be checked.
2. Significantly, it does not take account of a key factor that could distort trend analysis between 2008 and 2013; that the reduction in waste arisings between 2008 and 2013 are in part due to the national recession. It does mention the potential impact of recession on the baseline (Table 8) and states the impact on the baseline would be '*one-off and bounce back'.* However this appears to have been ignored in the subsequent analysis.
3. NPPG: Waste is quoted in relation to forecasting future arisings, at section 3.1.2 of the KCC LACW Need Assessment. However the analysis does not appear to have followed the guidance. The analysis has considered long and short-term growth rates for the change in waste per household but does not appear to consider the impact of housing growth, which is suggested in NPPG: Waste
'*The final forecast can then be modelled with scenarios based on the long- and short-term rate of growth per household, together with household forecasts*'. (Paragraph 030)
4. It appears to completely disregard growth in population, households or economic recovery and applies a generic growth rate based on outdated information that is not directly related to LACW generation in Kent. The KCC LACW Need Assessment presents a Defra waste forecast from the 2014 report 'Forecasting 2020 Waste Arisings and Treatment Capacity', which was produced to discuss Hertfordshire County Council's residual waste treatment project (the 2014 Hertfordshire Report). However, the use of this reference document in the KCC LACW Need Assessment highlights a significant misunderstanding of the information presented in the 2014 Hertfordshire Report. Figure 5 of the KCC LACW Need Assessment, which reproduces Figure 3 of the 2014 Hertfordshire Report, relates to the municipal waste element of the commercial and industrial (C&I) waste stream i.e. wastes from the C&I sector that are similar in nature to household waste. This graph does not include household waste, it is only the C&I fraction of municipal waste, and hence why the figure starts at around 16 million tonnes in 2010. In 2010/11, approximately 23.5 million tonnes of household waste was produced with the total LACW being 26.2 million tonnes. An explanation for use of the

[2] 'growth' should be taken to refer equally to increase, decline, or stasis in waste arisings

selected graph is provided (at footnote 11 of the KCC LACW Need Assessment) however, as explained, it is not a valid comparator for LACW.

5. The KCC LACW Need Assessment presents a scenario of 0.2% per annum growth based on the '*national DEFRA central forecast'.* However, the source of this annual growth rate is not quoted and it must be assumed that it was drawn from the 2014 Hertfordshire Report, because that is the only document referenced. A brief review of the 2014 Hertfordshire Report could not find any reference to a 0.2% per annum growth for the '*national DEFRA central forecast*'.

6. The justification of the preferred forecast of 0.2% growth per annum is not based on the recent available evidence. Defra published LACW Annual Results Tables on 5th December 2017 and this data set has not been considered in the latest version of the KCC LACW Need Assessment (dated 18th December 2017). Therefore the analysis is not based on '*the best evidence*'[3].

7. The forecast are presented to the nearest tonne which is also inconsistent with the NPPG: Waste, which states the evidence should avoid *'unnecessary and spurious precision*'.

[3] NPPG, Paragraph: 028 Reference ID: 28-028-20141016

3. Collation of baseline data

3.1 Housing data and forecasts

3.1.1 To analyse the trends in waste generation per household, household numbers between 2007/08 and 2016/17 are required, along with household forecasts up to 2031 to consider future trends.

3.1.2 Table 3.1 presents the DCLG household projection data for the period 2007 to 2031 taken from Table 406 of the Household_Projections_Published_Tables spreadsheet[4] published in July 2016.

[4] https://www.gov.uk/government/statistical-data-sets/live-tables-on-household-projections

Table 3.1 DCLG household projection data for 2007 to 2031 (thousands of households)

Local Authority	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Kent	**581**	**588**	**594**	**601**	**607**	**614**	**620**	**629**	**637**	**644**	**653**	**660**	**669**	**676**	**684**	**692**	**699**	**707**	**715**	**722**	**730**	**738**	**745**	**753**	**761**
Ashford	46	46	47	47	48	49	50	50	51	52	53	54	54	55	56	57	57	58	59	60	60	61	62	62	63
Canterbury	59	59	60	60	61	61	62	63	64	65	66	67	67	68	69	70	70	71	72	73	74	74	75	76	77
Dartford	38	38	39	40	40	41	41	42	43	43	44	45	45	46	47	47	48	48	49	49	50	51	51	52	52
Dover	47	47	48	48	48	49	49	49	50	50	51	51	52	52	53	53	54	54	55	55	56	56	57	57	57
Gravesham	39	40	40	40	40	41	41	42	43	43	44	44	45	45	46	46	47	47	48	48	49	49	50	50	51
Maidstone	60	61	62	63	64	64	65	66	67	68	69	70	71	72	73	74	75	76	76	77	78	79	80	81	81
Sevenoaks	46	46	46	47	47	48	48	48	49	49	50	50	51	51	52	52	53	53	54	54	55	55	56	56	57
Shepway	45	46	46	47	48	48	48	49	49	50	50	51	52	52	53	53	54	54	55	55	56	57	57	58	58
Swale	53	54	54	55	56	57	57	58	59	60	61	61	62	63	64	65	66	66	67	68	69	69	70	71	72
Thanet	58	58	59	59	60	60	61	62	62	63	64	65	65	66	67	68	69	69	70	71	72	73	73	74	75
Tonbridge and Malling	46	47	47	48	48	49	49	50	50	51	52	52	53	54	54	55	55	56	57	57	58	58	59	60	60
Tunbridge Wells	45	45	46	47	47	48	48	48	49	49	50	50	51	51	52	52	53	53	54	54	55	55	56	56	57
Medway UA	**103**	**104**	**105**	**106**	**107**	**108**	**110**	**111**	**113**	**114**	**116**	**117**	**118**	**120**	**121**	**122**	**124**	**125**	**126**	**128**	**129**	**130**	**131**	**133**	**134**

3.2 LACW data

3.2.1 The term 'local authority collected waste', abbreviated to 'LACW' is used to refer to all waste collected by a local authority and consists of a number of elements:

- household waste - waste collected or received from households within the local authority;
- trade waste - the commercial and industrial waste collected by the local authority (e.g. from local businesses);
- other municipal wastes - for example waste from parks and gardens, or fly tipping; and
- non-municipal fractions - principally construction and demolition waste.

3.2.2 LACW is the only waste stream in the UK where the total waste generation is accurately known. This is as a result of the detailed data set collected through WasteDataFlow (WDF). WasteDataFlow is a web-based system for quarterly reporting on LACW data by local authorities to central government.

3.2.3 Defra collates the data by local authority within WDF on an annual basis and publishes a series of data tables presenting a range of information on LACW and associated performance indicators. The most recent LACW data set was published on 5th December 2017[5] in an Excel spreadsheet (LA_and_Regional_Spreadsheet_201617) which includes:

- Table 1: Local Authority collected and household waste statistics 2014/15 to 2016/17 by local authority;
- Table 1a: Regional breakdown - LACW generation from 2000/01 to 2016/17;
- Table 2: Management of LACW, 2014/15 to 2016/17 by local authority;
- Table 2a: Regional breakdown: Management of LACW, 2016/17;
- Table 3: Selected waste indicators 2010/11 to 2016/17 by local authority;
- Table 3a: Regional - Selected waste indicators 2000/01 to 2016/17;
- Table 3b: Overall recycling Rates 2000/01 to 2016/17, England.

3.2.4 Data has been extracted from 'Table 1' of the most recent data release, along with comparable data from earlier statistical releases, to provide a breakdown of the LACW produced in Kent between 2007/08 and 2016/17. These are shown in Table 3.2 of this report and Figure 3.1.

3.2.5 Table 3.3 presents the tonnages of the headline categories of LACW for the South East Region and England, with Figure 3.2 providing a comparison of the total LACW in the South East Region and England with Kent's LACW arisings.

[5] https://www.gov.uk/government/statistical-data-sets/env18-local-authority-collected-waste-annual-results-tables

Table 3.2 LACW produced in Kent 2007/08 to 2016/17 (tonnes)

Elements of LACW	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Household dry recycling/reuse				173,819	169,825	162,190	169,005	173,656	172,373	182,045
Household green recycling/reuse				95,665	105,342	105,482	119,661	132,056	125,617	137,446
Household, waste sent for recycling/composting/reuse	**267,308**	**273,496**	**261,944**	**269,484**	**275,167**	**267,672**	**288,665**	**305,712**	**297,991**	**319,490**
Household, regular collection (not recycled)	357,430	330,173	318,554	319,304	299,939	291,815	279,739	267,239	277,428	274,545
Household, civic amenity sites (not recycled)	79,808	66,009	58,613	57,535	53,065	46,012	45,323	50,131	54,579	54,594
Household, other sources (not recycled)	40,956	37,321	37,848	42,535	38,698	39,125	40,895	39,790	36,751	33,171
Household, estimated rejects			6,096	6,954	5,681	5,804	6,783	7,395	9,181	7,563
Household, waste not sent for recycling	***478,194***	***433,503***	**421,110**	**419,374**	**391,702**	**382,756**	**372,724**	**364,551**	**377,939**	**369,873**
Household, total waste	**745,502**	**706,999**	**683,054**	**688,857**	**666,869**	**650,428**	**661,390**	**670,263**	**675,930**	**689,363**
Non-household, waste sent for recycling/composting/reuse	46,348	41,812	45,415	38,267	40,234	31,217	32,371	33,577	33,442	36,212
Non-household, waste not sent for recycling	11,644	11,205	8,752	12,003	10,011	7,475	7,547	7,513	6,824	5,568
Non-household, total waste	***57,992***	***53,017***	**54,167**	**50,270**	**50,245**	**38,692**	**39,918**	**41,091**	**40,266**	**41,779**
LACW, sent for recycling/composting/reuse			307,359	307,751	315,401	298,889	321,036	339,289	331,433	355,702
LACW, not sent for recycling			429,862	431,377	401,713	390,231	380,271	372,065	384,763	375,441
LACW, estimated rejects			6,102	6,964	5,684	5,808	6,794	7,412	9,181	7,563
Total LACW	**803,494**	**760,016**	**743,323**	**739,127**	**717,114**	**689,120**	**701,308**	**711,354**	**716,196**	**731,143**
Number of households, DCLG (Section 3.1)	581,373	588,212	593,762	600,851	606,910	613,976	620,472	628,927	636,511	644,489
Tonnes of household waste per household	1.282	1.202	1.150	1.146	1.099	1.059	1.066	1.066	1.062	1.070
Tonnes of LACW per household	1.382	1.292	1.252	1.230	1.182	1.122	1.130	1.131	1.125	1.134
Tonnes of non-household LACW per household	0.100	0.090	0.102	0.084	0.083	0.063	0.064	0.065	0.063	0.065

Notes: Source: Department for Environment, Food & Rural Affairs

There have be some minor changes to the data set reported with increase granularity since 2010/11 and the presentation of the estimated rejects

Not reported	
Not reported but calculated for reported figures	*Value*
Not additive as included in not sent for recycling	

Figure 3.1 LACW produced in Kent 2007/08 to 2016/17 and household waste per household

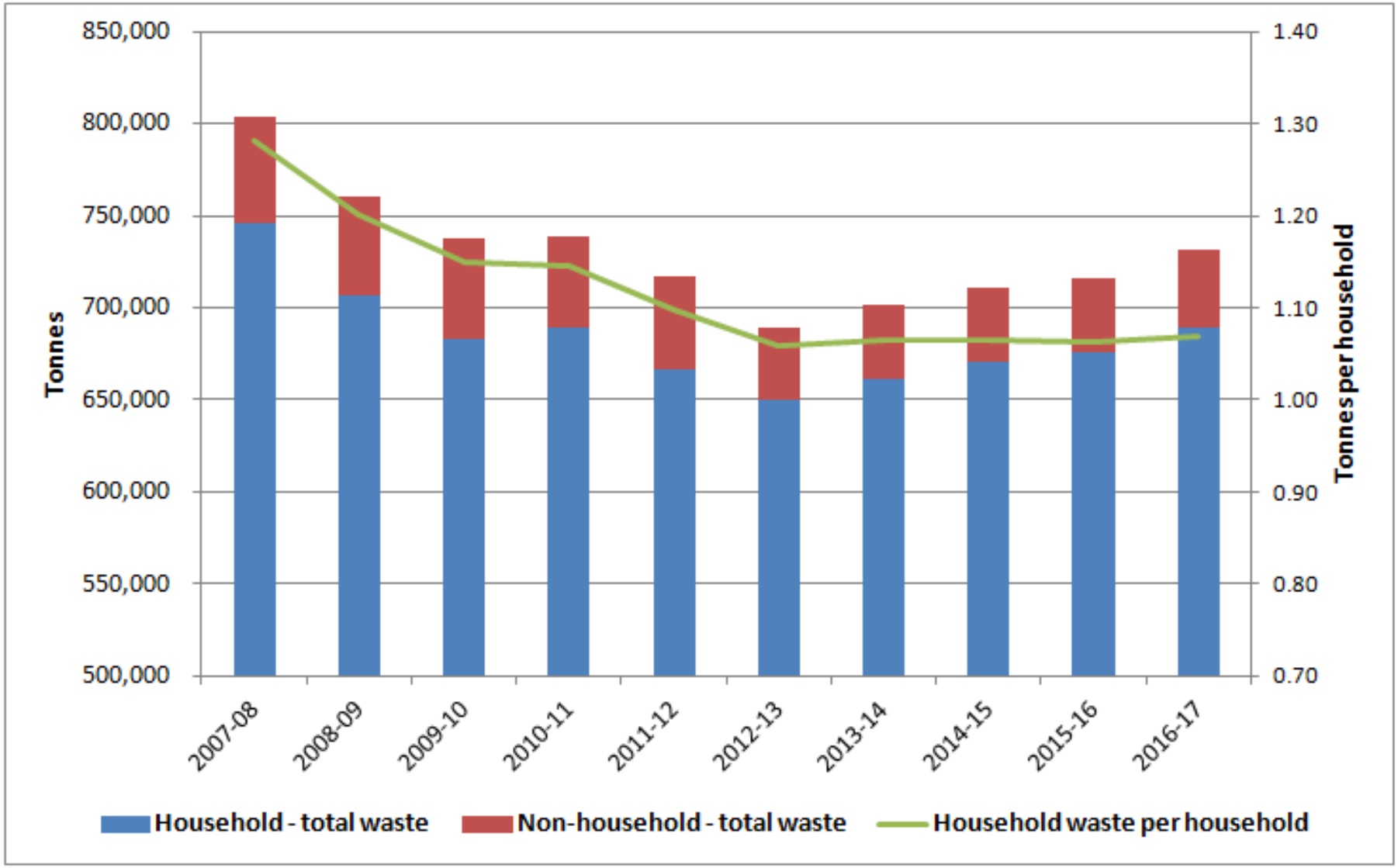
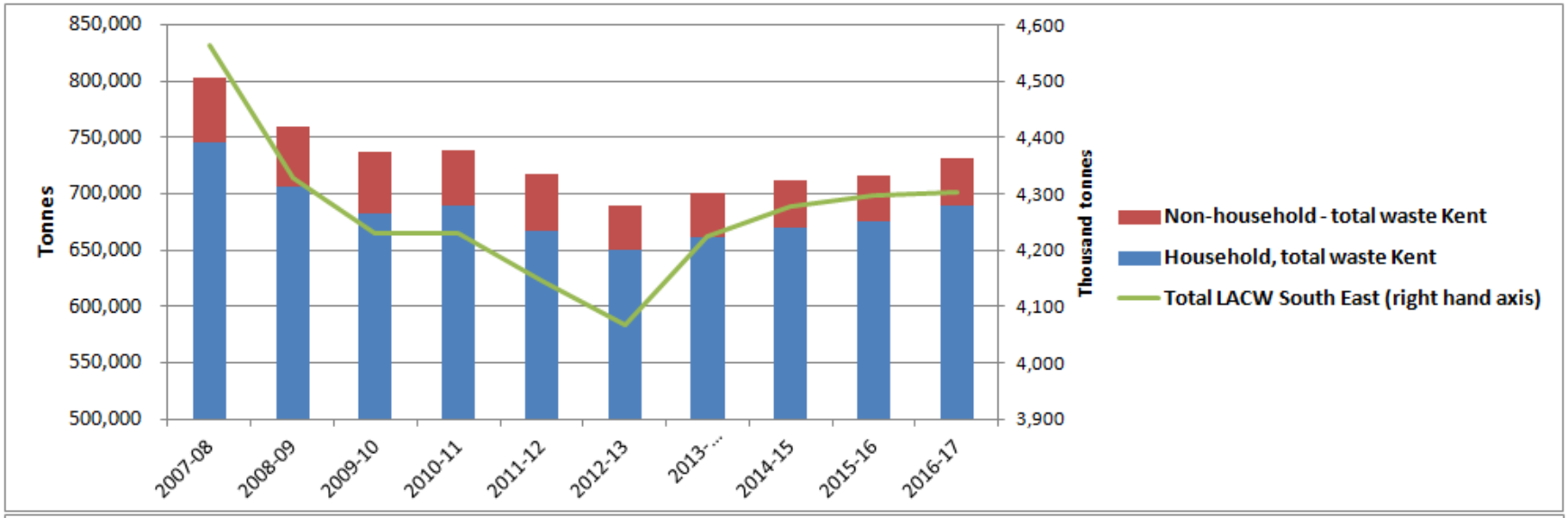
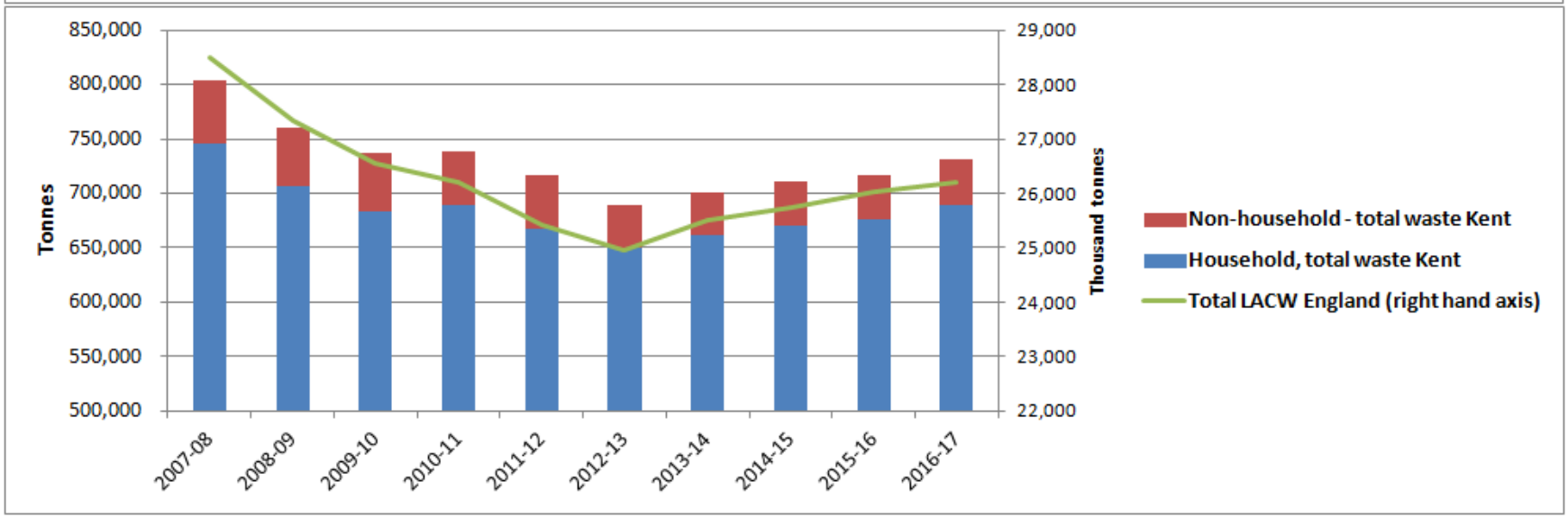


Table 3.3 LACW produced in the South East Region and England 2007/08 to 2016/17 (thousand tonnes)

South East Region										
Household waste from:	**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**
Regular household collection	1,992	1,871	1,800	1,742	1,673	1,630	1,641	1,628	1,638	1,616
Other household sources	167	172	182	186	184	193	200	174	183	177
Civic amenity sites	555	444	379	373	326	326	365	376	400	372
Household recycling	1,528	1,551	1,576	1,619	1,669	1,649	1,712	1,787	1,782	1,858
Total household	**4,242**	**4,038**	**3,937**	**3,920**	**3,852**	**3,797**	**3,920**	**3,966**	**4,002**	**4,024**
Non household sources (excl. recycling)	171	149	152	158	129	117	123	122	114	117
Non household recycling	149	142	141	152	165	151	181	189	182	164
Total LACW	**4,563**	**4,328**	**4,230**	**4,230**	**4,146**	**4,066**	**4,224**	**4,278**	**4,298**	**4,304**
England										
Household waste from:	**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**
Regular household collection	13,046	12,076	11,432	11,048	10,586	10,317	10,308	10,392	10,532	10,497
Other household sources	1,073	1,026	1,070	1,047	997	1,027	1,099	1,058	1,142	1,099
Civic amenity sites	2,434	2,086	1,765	1,635	1,470	1,477	1,568	1,597	1,700	1,728
Household recycling	8,735	9,146	9,398	9,724	9,846	9,759	9,980	10,117	10,075	10,329
Total household	**25,287**	**24,334**	**23,666**	**23,454**	**22,899**	**22,580**	**22,967**	**23,169**	**23,449**	**23,653**
Non household sources (excl. recycling)	2,250	2,063	1,999	1,882	1,654	1,558	1,600	1,617	1,585	1,634
Non household recycling	969	936	877	864	866	817	950	950	998	923
Total LACW	**28,506**	**27,334**	**26,541**	**26,200**	**25,419**	**24,955**	**25,518**	**25,737**	**26,032**	**26,210**

Figure 3.2 Comparison of South East Region and England LACW arisings with Kent's LACW arisings 2007/08 to 2016/17





3.2.6 Table 3.4 provides a summary of the management method used to handle the LACW generated in Kent.

Table 3.4: Management Methods for LACW generated in Kent (tonnes) 2007/08 to 2016/17

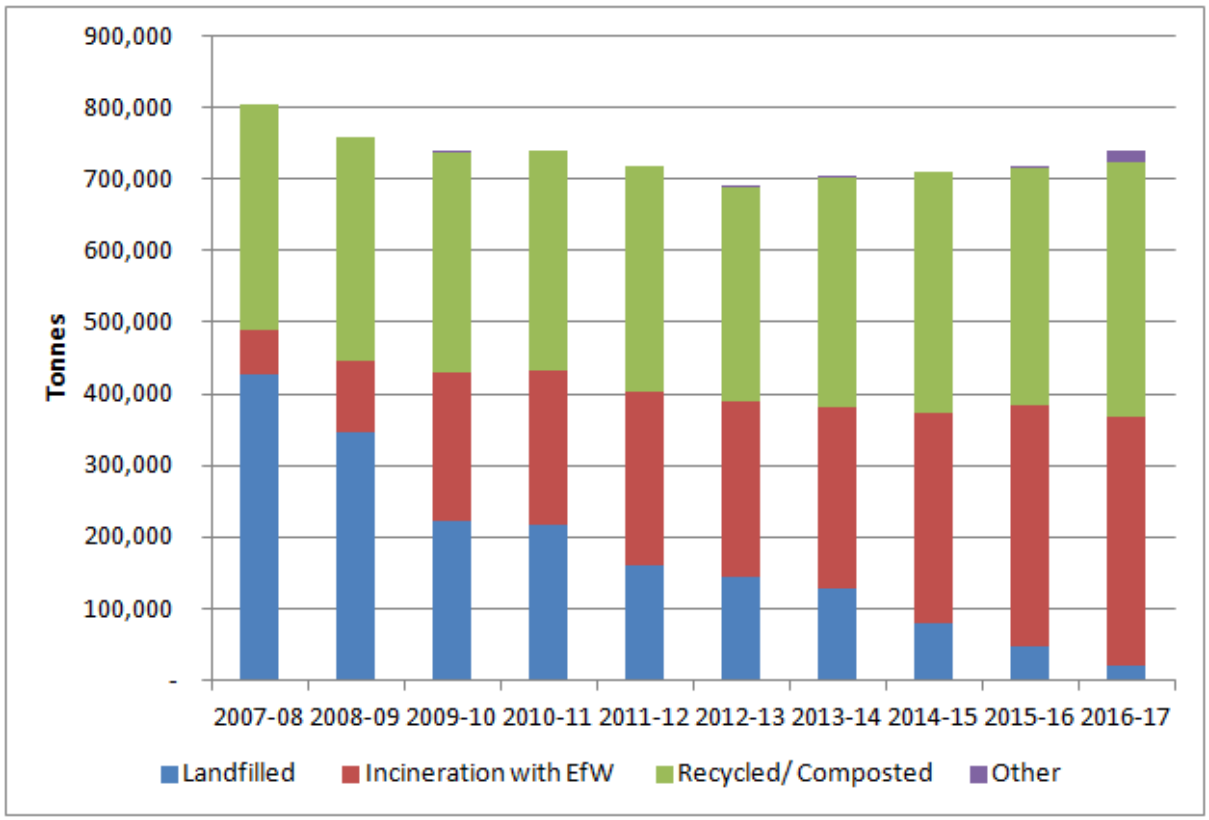
Management Method	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Landfilled	427,584	346,057	222,021	215,437	161,249	145,072	127,426	78,738	46,197	20,770
Incineration with EfW	62,253	98,651	207,842	215,940	240,464	245,157	252,853	293,331	338,068	348,179
Recycled/Composted	313,656	315,308	307,359	307,751	315,401	298,889	321,036	339,289	331,433	355,702
Other[1]	-	-	0	-	-	3	8	-	1,665	16,083
Total[2]	**803,494**	**760,016**	**737,221**	**739,127**	**717,114**	**689,120**	**701,324**	**711,358**	**717,363**	**740,733**
Input to intermediate plants[3]							-	-	2,191	32,338

Notes: Source: Department for Environment, Food & Rural Affairs
There have be some minor changes to the data set reported with increase granularity since 2014/15

1. Other includes waste treated/disposed through other unspecified treatment processes as well as process and moisture loss.
2. Total Local Authority collected waste managed may not match total Local Authority collected waste collected due to stockpiling of waste between reporting periods.
3. Refers to input to MBT, Residual MRF, RDF and other plants prior to treatment and disposal.

3.2.7 Figure 3.3 present the LACW management method graphically and highlights the decrease in the proportion of LACW landfilled over the last 10 years mirrored by the increase in the proportion of LACW incinerated.

Figure 3.3 Management Methods for LACW generated in Kent (tonnes) 2007/08 to 2016/17



3.2.8 Table 3.5 shows the key national performance indicators for Kent between 2010/11 and 2016/17 (as reported in Defra's LA_and_Regional_Spreadsheet_201617, Table 3) with the data presented graphically in Figures 3.4 to 3.7.

Table 3.5 Key national performance indicators for Kent 2010/11 to 2016/17

Year	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Residual household waste per household (kg/household) (Ex NI191)	665	616	599	580	567	585	567
Percentage of household waste sent for reuse, recycling or composting (Ex NI192)	39.0%	41.1%	41.0%	43.6%	45.6%	44.1%	46.3%
Percentage of municipal (LACW) waste sent to landfill (Ex NI193)	29.1%	22.5%	21.0%	18.2%	11.1%	6.5%	2.8%
Collected household waste per person (kg) (Ex BVPI 84a)	490	465	441	446	450	443	447

Figure 3.4 Kent Residual household waste per household (kg/household) (Ex NI191) 2010/11 to 2016/17

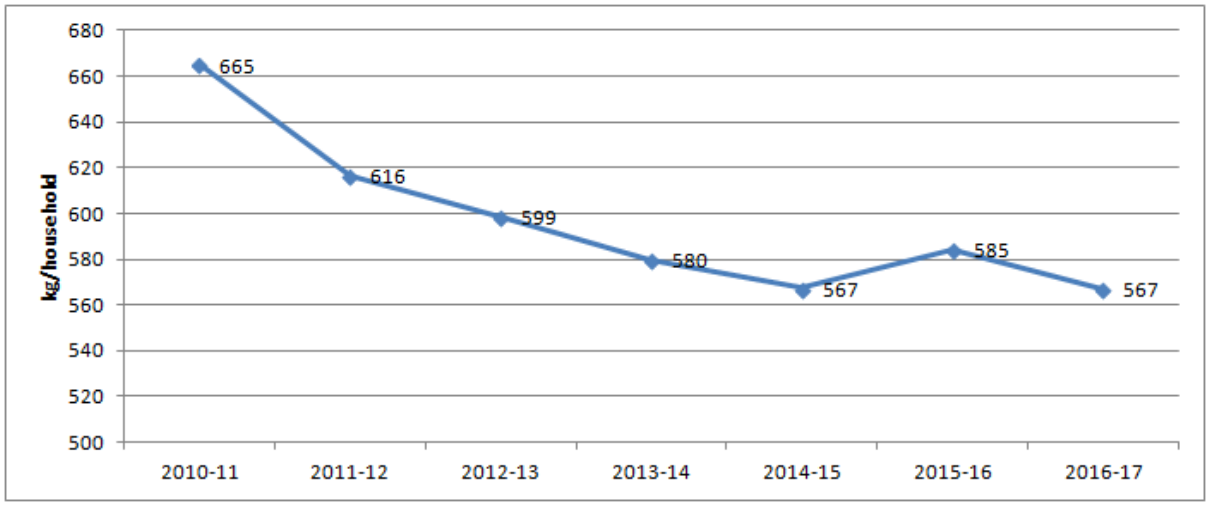


Figure 3.5 Kent Percentage of household waste sent for reuse, recycling or composting (Ex NI192) 2010/11 to 2016/17

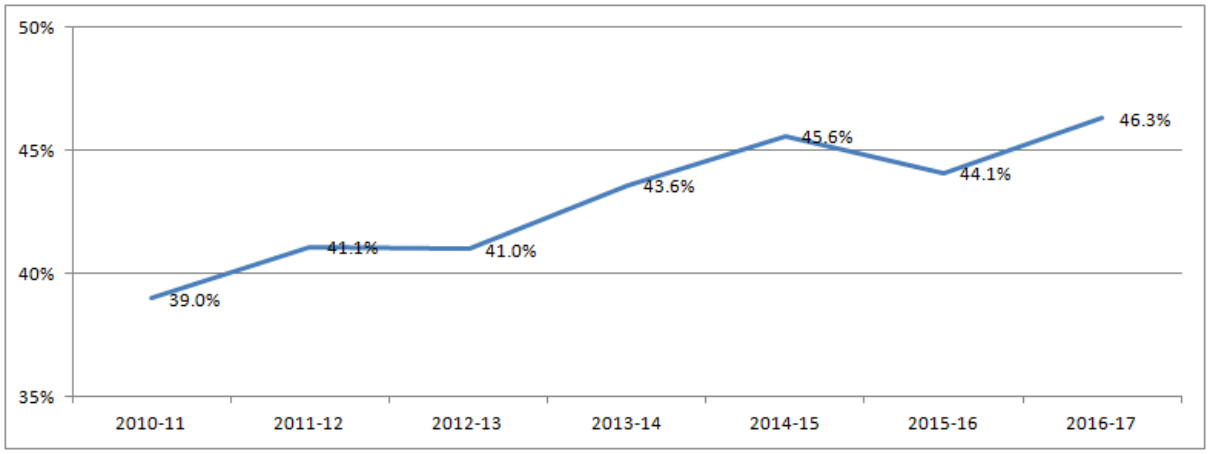


Figure 3.6 Kent Percentage of LACW sent to landfill (Ex NI193) 2010/11 to 2016/17

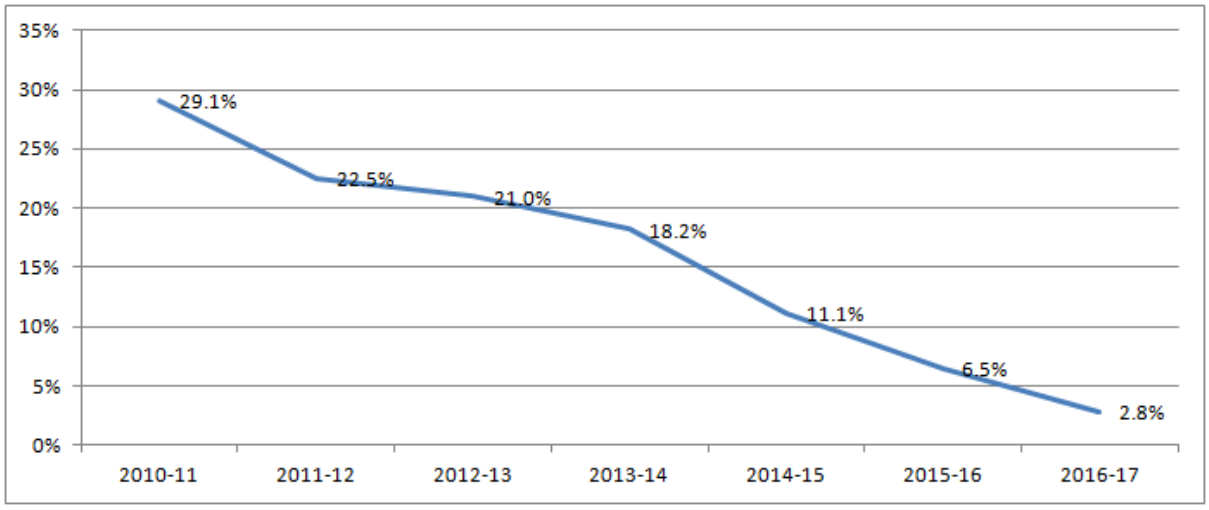
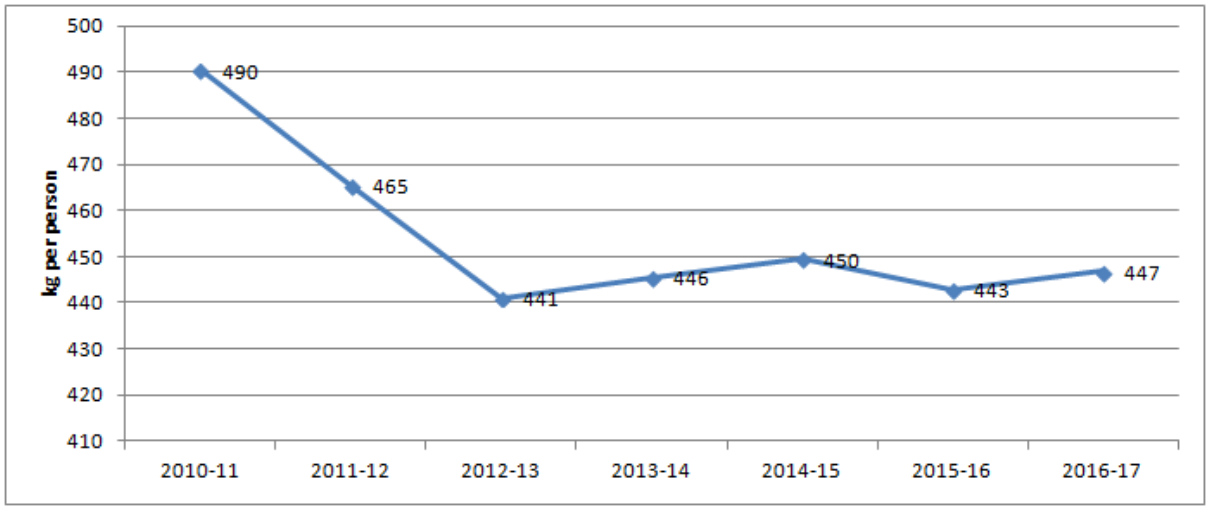


Figure 3.7 Kent Collected household waste kg per person (Ex BVPI 84a) 2010/11 to 2016/17



3.3 Economic growth and waste generation

3.3.1 Historical trends in most industrial economies show that resource use and the resulting waste generation is linked to economic activity. Decoupling economic growth from waste generation is the main objective of recent waste policies (e.g. waste prevention, resource efficiency, circular economy) across Europe. Consequently, there have been a number of studies over the last few years that look at the relationship between waste growth and economic growth.

3.3.2 At the end of 2012, WRAP published a report[6] highlighting that household waste arisings peaked between 2003 and 2007 and started to fall before the start of the recession, showing strong evidence of decoupling. For England, there was strong evidence of decoupling of household waste arisings from Gross Disposable Household Income[7] and a short period of decoupling with Gross Value Added[8]. However, from 2005/06 waste rose and fell in line with Household Expenditure[9], suggesting a strong link, or coupling, between Household Expenditure and household waste arisings, as would be expected.

3.3.3 It also highlighted that the perception of the 2007 credit crunch precipitated a loss of consumer confidence, with Household Expenditure falling while income was yet unaffected, and that household waste arisings are not coupled to Gross Disposable Household Income at a time of low consumer confidence (although they may well be at other more positive times).

3.3.4 More recent modelling[10] undertaken but the National Infrastructure Commission (NIC) to inform the National Infrastructure Assessment, highlighted that historical data shows that

[6] WRAP, Decoupling of Waste and Economic Indicators, October 2012

[7] Gross Disposable Household Income (GDHI) – an alternative measure of income; it measures what is available for households to spend or save once taxes, social contributions, pension contributions and property ownership have been taken into account.

[8] Gross Value Added (GVA) measures the contribution to the economy of each individual producer, industry or sector in the United Kingdom and is a headline measure used to monitor economic performance.

[9] Household Expenditure (HE) encompasses all domestic outlays (by residents and non-residents) for individual needs, including expenditure on goods and services.

[10] Infrastructure Commission (NIC) Modelling Results Roundtable, London, June 2017

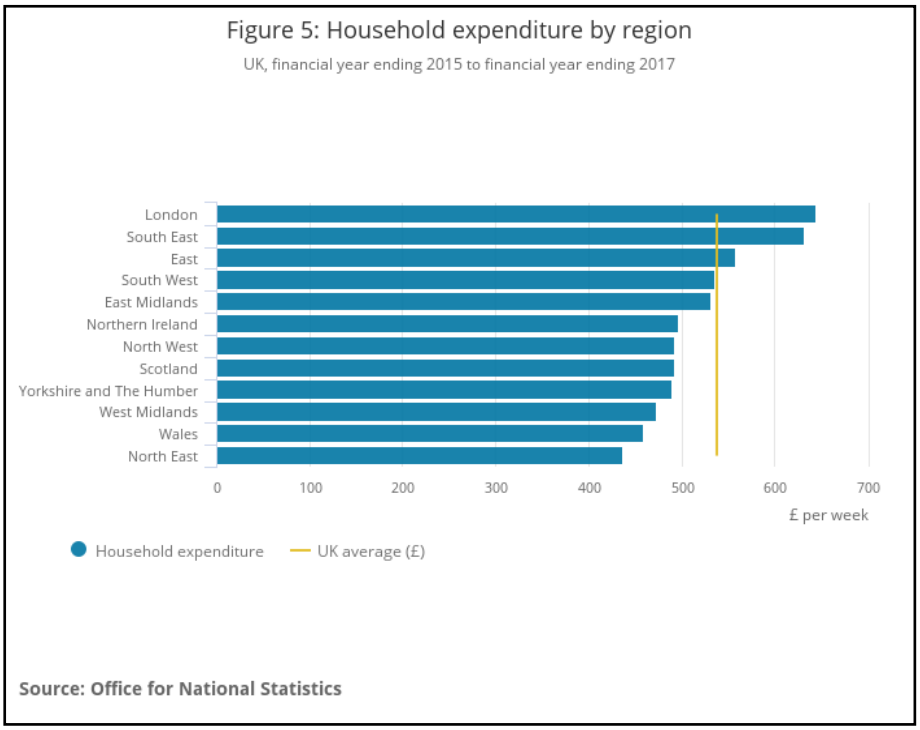
waste generation is correlated with economic activity. However, recent trends indicate that economic growth and LACW arisings may be decoupling (i.e. using less resources and generating less waste per unit of economic activity). Due to the uncertainty around the rate at which waste arisings may decouple from economic growth in the future, a sensitivity analysis of the degree of decupling was factored into this modelling of future LACW arisings.

3.3.5 The NIC modelling of future LACW arisings suggested LACW arisings of between 31 million tonnes and 59 million tonnes by 2050; with the exception of the model which assumed a high decoupling rate, which indicated a reduction to 23 million tonnes compared with a 2015 arising of 26 million tonnes.

3.3.6 Therefore, when forecasting future LACW arisings, there is a need to recognise a degree of decoupling of waste growth from economic growth (GVA) but there is still correlation of house expenditure with LACW growth.

3.3.7 The ONS Statistical Bulletin 'Family spending in the UK: financial year ending 2017'[11] highlights that the average weekly household spending rose to £554.20 in the financial year ending 2017; in real terms this was a return to pre-economic downturn levels. In addition, the Bulletin highlights that London and the South East have the highest average weekly household spending, as shown in Figure 3.8, which reproduces Figure 5 from the Bulletin.

Figure 3.8 Household expenditure by region from ONS Statistical Bulletin 'Family spending in the UK: financial year ending 2017'



[11] https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/expenditure/bulletins/familyspendingintheuk/financialyearending2017

3.3.8 Figure 3.9 provides a comparison of Kent's LACW arisings with UK Total average household expenditure per week.

Figure 3.9 Comparison of UK Total average household expenditure per week with Kent's LACW arisings 2007/08 to 2016/17

Economic Growth in Kent

3.3.9 Kent Economic Indicators 2017[12], provides GVA figures for Kent between 2012 and 2017; these are the headline measure used to monitor economic performance.

3.3.10 The GVA figures are reproduced in Table 3.6, along with the year-on-year percentage change in GVA. The data shows a year-on-year increase in GVA, indicating the growth in the local economy.

Table 3.6 GVA per Head, Kent 2012 to 2017

	2012	2013	2014	2015	2016	2017
GVA per Head (£)	19,293	19,494	19,869	20,355	21,056	21,636
% change in GVA		1.0%	1.9%	2.4%	3.4%	2.8%
Source: Kent Economic Indicators 2017, Strategic Business Development & Intelligence, Kent County Council www.kent.gov.uk/research						

[12] Strategic Business Development & Intelligence, Kent County Council www.kent.gov.uk/research

3.3.11 GVA forecasts are not generally publically available and have to be purchased on a commercial basis. However, the Kent County Council, Growth and Infrastructure Framework highlights some GVA growth estimates up to 2031 for:

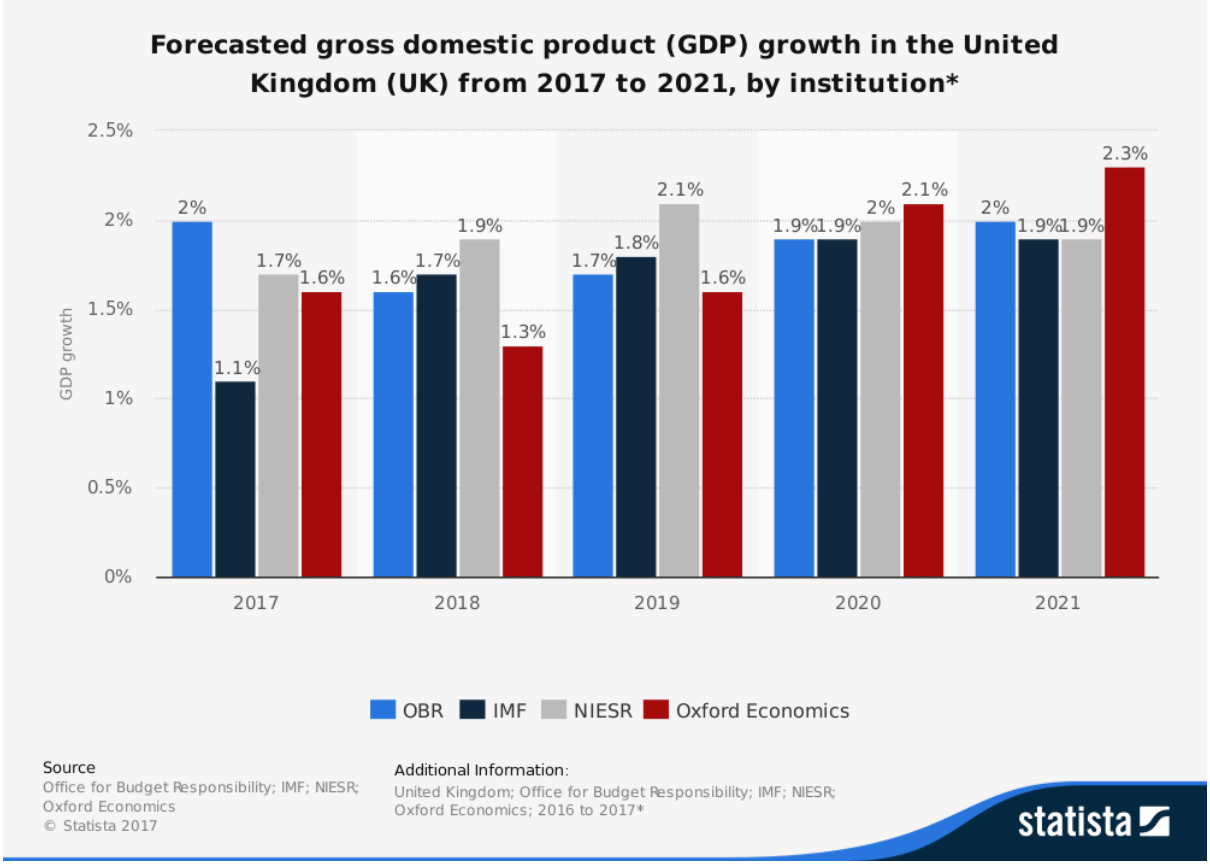
- Ashford BC: 91% by 2031
- Dartford BC: 99% by 2031
- Dover DC: 34% by 2031
- Thanet DC: 51% by 2031

3.3.12 This level of growth is equivalent to average annual growth in GVA of between 1.5% and 4%, which would suggest continuing growth in LACW arisings even with a level of decoupling between economic growth and waste growth.

3.3.13 In addition, short term growth in gross domestic product (GDP)[13] suggests continuing growth in the UK economy.

3.3.14 Figure 3.10, compiled by Statista, show a comparison of GDP growth forecasts in the UK from 2017 to 2021, all of which show GDP growth.

Figure 3.10 UK GDP forecasts 2017 to 2021



Source: https://www.statista.com/statistics/375195/gdp-growth-forecast-comparison-uk/

[13] GDP is a key indicator of the state of the whole economy.
GVA + taxes on products - subsidies on products = GDP

4. Review of local authority systems and performance

4.1 Waste collection services

4.1.1 To understand future waste treatment requirements, in particular the phasing for different waste treatment capacity, it is important to understand the current waste collection schemes and the materials collected.

Dry Recycling Schemes

4.1.2 All the Waste Collection Authorities (WCA) offer kerbside collection services for dry recyclables to the majority of households in their area, with some properties offered communal recycling collections. The predominant collection scheme in each WCA area is summarised in Table 4.1.

Table 4.1 Predominant collection schemes offered by Kent WCA, 2016/17

WCA	Scheme type	Dry Recycling Collection Frequency	Residual Collection Frequency	Materials											
				Glass	Cans	Aerosols	Foil	Card	Plastic Bottles	Mixed plastics	Paper	Batteries	Textiles	Other	Composites
Ashford BC	Co-Mingled	F'nightly	F'nightly	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	✓
Canterbury CC	Two Stream	F'nightly	F'nightly	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	✓
Dartford BC	Two Stream	F'nightly	Weekly	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	✓
Dover DC	Two Stream	F'nightly	F'nightly	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	✓
Gravesham BC	Co-Mingled	F'nightly	Weekly	X	✓	✓	✓	✓	✓	✓	✓	X	X	X	✓
Maidstone BC	Co-Mingled	F'nightly	F'nightly	✓	✓	✓	✓	✓	✓	✓	✓	X	✓	X	✓
Sevenoaks DC	Co-Mingled	Weekly	Weekly	X	✓	✓	✓	✓	✓	✓	✓	X	X	X	✓
Shepway DC	Two Stream	F'nightly	F'nightly	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	X	✓
Swale BC	Co-Mingled	F'nightly	F'nightly	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	✓
Thanet DC	Two Stream	F'nightly	F'nightly	✓	✓	✓	✓	✓	✓	✓	✓	X	X	X	✓
Tonbridge and Malling BC	Multi-Stream	F'nightly	Weekly	X	✓	✓	✓	X	X	X	✓	X	X	X	✓
Tunbridge Wells BC	Multi-Stream	F'nightly	F'nightly	X	✓	X	X	✓	✓	✓	✓	X	X	X	✓

Source: WRAP's Local Authority Waste and Recycling Portal

Garden Waste Schemes

4.1.3 All the WCA in Kent offer fortnightly subscription based garden waste collection services, with the exception of Tonbridge and Malling BC and Tunbridge Wells BC who offer a fortnight service for mixed food and garden waste, free of charge.

Separate Food Waste Schemes

4.1.4 8 of the 12 WCA offer separate weekly food waste collections, they are: Ashford BC; Canterbury CC; Dover DC; Gravesham BC; Maidstone BC; Shepway DC; Swale BC; and Thanet DC.

4.1.5 As highlighted in Section 4.1.3, Tonbridge and Malling BC and Tunbridge Wells BC both offer mixed food and garden waste collection.

4.1.6 Dartford BC and Sevenoaks DC do not offer food waste collections.

4.2 Recycling Performance

4.2.1 WRAP's Local Authority Waste and Recycling Portal (the WRAP Portal) holds benchmarking information that provides performance data showing how local authority kerbside dry recycling and residual waste schemes are performing, both in the UK and against comparable local authorities.

4.2.2 The current data in the WRAP Portal is for the year 2015/16, presenting the kerbside dry recycling yield (kg/household/year) for each of the main materials collected (paper, card, cans, glass, plastic bottles, mixed plastic packaging and textiles) and a total yield for all five widely recycled materials, where they are collected. The yield for each material is also compared against benchmarks to show in which quartile it resides. The benchmarks used to compare the yields are:

- the UK as a whole;
- the local authority region;
- the Office for National Statistics (ONS) area group, which assigns authorities into groups which have key population characteristics in common such as housing type and age distribution; and
- the Urban-Rural Index of Multiple Deprivation (IMD) classification, is a 6-part classification combining rural nature and deprivation level.

4.2.3 The data for the Kent WCA has been extracted for 2015/16 and is presented in Table 4.2; it is also benchmarked against the ONS area group each WCA sits within. Table 4.2 also contains the 2016/17 percentage recycling and composting rate, to show the change between 2015/16 and the most recent data which is yet to be added to the WRAP Portal.

.

Table 4.2 Benchmarking of Kent WCA, 2015/16

Kent WCAs	ONS Area classification	Yield (kg/hhd/yr)									% of household waste sent for recycling and composting	
		Kerbside recycling collections							All 5 'Widely Recycled' materials	Kerbside Residual Waste		
		Paper	Card	Cans	Glass	Plastic bottles	Mixed plastic packaging	Textiles			2015/16	2016/17
Ashford BC	Country Living	100.9	37.4	12.2	63.5	16.6	6.5	n/a	230.6	330.4	53.1%	55.0%
Canterbury CC	Larger Towns and Cities	45.8	21.5	12.5	70.8	16.9	6.5	n/a	167.5	387.9	43.2%	44.4%
Dartford BC	Suburban Traits	88	30.7	9.4	30.1	13.5	5.3	n/a	171.7	580.2	26.5%	25.2%
Dover DC	Remoter Coastal Living	58.6	27.6	12.4	70.3	16.7	6.4	n/a	185.7	350.2	41.7%	44.7%
Gravesham BC	Suburban Traits	80.9	28.2	8.6	n/a	12.4	4.9	n/a	n/a	432.4	35.0%	34.5%
Maidstone BC	Thriving Rural	101.8	37.7	12.4	64	16.8	6.6	n/a	232.7	372.3	47.8%	49.9%
Sevenoaks DC	Thriving Rural	81.3	28.4	8.7	n/a	12.5	4.9	n/a	n/a	509.6	31.9%	38.3%
Shepway DC	Remoter Coastal Living	50.8	23.9	13.7	78	18.6	7.1	n/a	185	381.5	44.0%	42.5%
Swale BC	Country Living	86.3	31.9	10.5	50.5	14.2	5.2	0.1	193.4	466.1	36.9%	41.6%
Thanet DC	Remoter Coastal Living	49.6	23.3	8	45.4	10.8	4.1	n/a	137.1	396.7	31.6%	33.8%
Tonbridge and Malling BC	Thriving Rural	47.9	n/a	5.5	n/a	n/a	n/a	n/a	n/a	484.8	41.5%	42.5%
Tunbridge Wells BC	Thriving Rural	72.9	34.3	8.3	n/a	12.1	4.8	n/a	n/a	433	45.6%	49.1%
Kent CC		n/a									44.1%	46.3%

Key: Quartile compared to other authorities in their ONS Area classification

In bottom 25% of LAs | In bottom 50% of LAs | In top 50% of LAs | In top 25% of LAs

It should be note that for Kerbside Residual Waste, the smaller the yield the better the performance

4.2.4 Key points to note from this data are:

- There is a range in the performance across the WCA: half of the 12 WCA being above the national recycling rate of 43% in 2015/16; and 5 being above the national recycling rate of 43.7% in 2016/17.
- 7 of the 12 WCA are in the top 50% of local authorities in their ONS Area classification for residual waste yield.
- 4 of the 12 WCA do not collect all 5 'Widely Recycled' materials. Whilst this is reflected in the % of household waste sent for recycling and composting for Gravesham BC and Sevenoaks DC, Tonbridge and Malling BC and Tunbridge Wells BC have recycling rates over 40%. This is because these WCA offer a fortnightly service for mixed food and garden waste, free of charge, which results in a significant quantity of material being sent for composting, compared to the other WCA, which only offer a fortnightly subscription based garden waste collection service.

4.2.5 In addition Figures 4.1 to 4.3 show the key national performance indicators for the Kent WCA between 2010/11 and 2016/17 (as reported in Defra's LA_and_Regional_Spreadsheet_201617, Table 3). With the exception of Ashford BC, there has been little significant change in these indicators over the last 5 years.

Figure 4.1 Kent Residual household waste per household (kg/household) (Ex NI191) 2010/11 to 2016/17

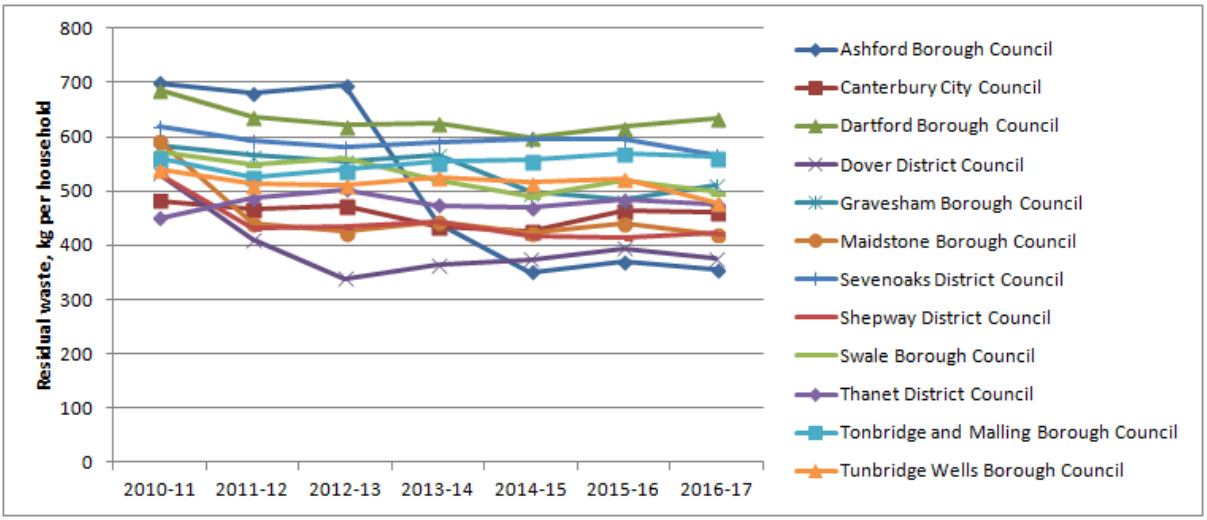


Figure 4.2 Kent Percentage of household waste sent for reuse, recycling or composting (Ex NI192) 2010/11 to 2016/17

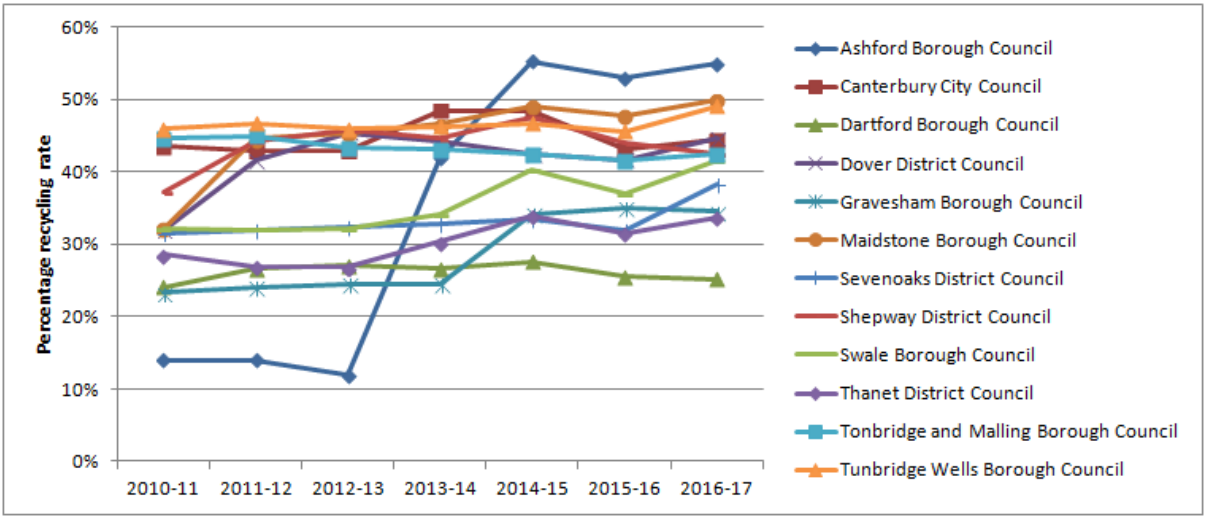
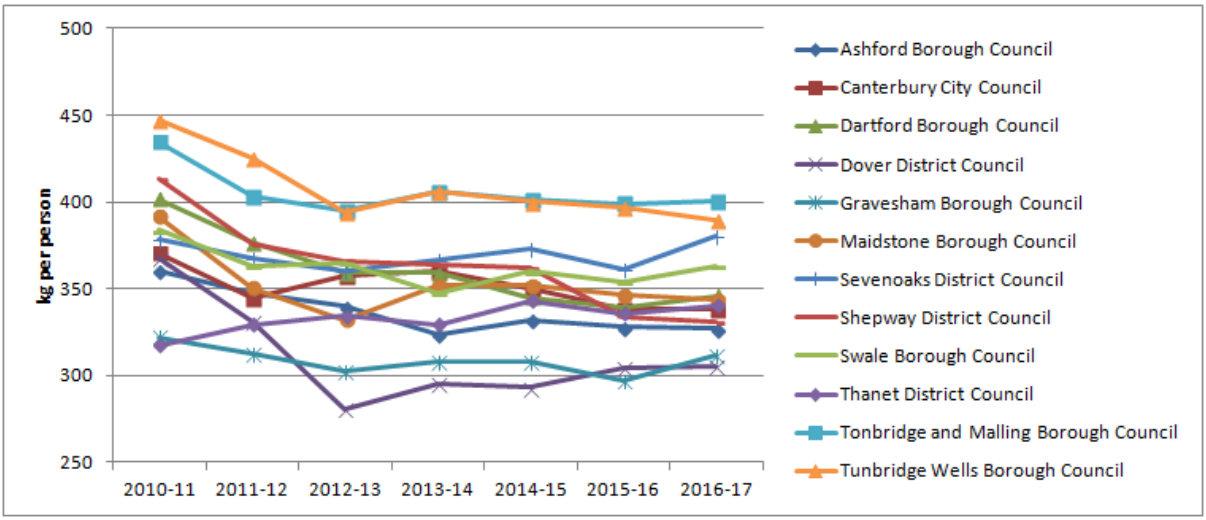


Figure 4.3 Kent Collected household waste kg per person (Ex BVPI 84a) 2010/11 to 2016/17



4.3 Impact of WCA services and performance

4.3.1 The data suggests that, without changes to collection services, the overall level of recycling and composting in Kent over the next 2 to 5 years is unlikely to exceed 50%.

4.3.2 Longer term (5 to 15 years) the level of change in performance is likely to be influenced by future government policy. However, authorities under the ONS Area classification 'Suburban Traits' (Dartford BC and Gravesham BC) are likely to struggle to significantly increase their recycling performance without notable investment and behavioural change. This could result in the overall recycling and composting rate remaining slightly above the national average, as at present.

4.3.3 Therefore assuming ambitious recycling and composting performance of greater than 60% by 2030/31 is likely to result in an oversupply of recycling and composting capacity and the potential for an undersupply of residual waste treatment capacity.

5. Waste growth scenarios and LACW forecast

5.1 Principal elements of waste growth scenarios

5.1.1 The guidance on forecasting LACW described in Section 2 highlights the three principal elements that should be considered when developing waste growth[14] profiles i.e.:

- analyse the trends in waste generation per capita or per household;
- the analysis should consider different elements of the waste stream;
- develop a range of growth profiles considering projected changes in household /population and economic growth.

5.2 Trends in waste generation per household

5.2.1 Normal practice is to look at trends over a 5 year period if the data is available and reliable; this gives a period of 2012/13 to 2016/17 over which to consider trends in waste generation per capita or per household.

5.2.2 This coincides with the low point in LACW arisings both in Kent and nationally following the impact of the recession on waste generation levels. This is consistent with the impact of the recession on waste arising set out in Table 8 of the KCC LACW Need Assessment, which indicates the effect of recession as a '*reduction overall although some increase in DIY waste*' with the impact on the baseline as a '*one-off and bounce back*'.

5.2.3 Table 5.1 provides analysis of the trend in the tonnes of household waste generated per household between 2012/13 and 2016/17.

Table 5.1 Trends in household waste generated per household in Kent, 2012/13 to 2016/17

	2012/13	2013/14	2014/15	2015/16	2016/17
Household waste per household (tonnes per household)	1.059	1.066	1.066	1.062	1.070
Year-on-year percentage change in household waste per household		0.62%	-0.02%	-0.36%	0.72%
Annual average percentage change since 2014/15			0.18%		
Annual average percentage change since 2012/13	0.24%				

5.3 Different elements of the waste stream

5.3.1 The Defra LACW statistics do not allow the trends in different elements of the household waste stream (e.g. kerbside collection, HWRC, etc) to be analysed separately because the tonnage sent for recycling/composting/reuse covers the material from all household waste stream.

5.3.2 However the data does allow an assessment of the non-household element of the LACW stream. The data for Kent, for years 2012/13 to 2016/17 is summarised in Table 5.2.

[14] 'growth' should be taken to refer equally to increase, decline, or stasis in waste arisings

Table 5.2 Non-household LACW collected in Kent, 2012/13 to 2016/17

	2012/13	2013/14	2014/15	2015/16	2016/17
Non-household LACW (tonnes)	38,692	39,918	41,091	40,266	41,779
Non-household LACW collected per household (tonnes per household)	0.063	0.064	0.065	0.063	0.065

5.3.3 The figures show that the total tonnage of non-household LACW has been relatively constant around 39,000 and 42,000 tonnes per annum. They also show that the non-household LACW collected per household has been constant at 0.064 tonne per household. However, this is not a particularly good measure for non-household LACW as there are a number of factors which affect the quantities of non-household waste collected by local authorities. These include:

- number, type of businesses and productivity/levels of waste generated;
- level of commercial waste service local authorities want to deliver;
- number of small and medium enterprises (SME) in different local authorities;
- nature and drivers of business types e.g. what their business activities are and the type of waste they generate;
- policy drivers, such as packaging e.g. light-weighting of packaging; and
- private sector waste collection companies seeking to maintain market share of commercial waste collections.

5.3.4 Due to the number of variables in the above factors, it is difficult to forecast any significant increase or decrease in the quantity of non-household waste collected by local authorities. It has therefore it is often assumed that the tonnage of non-household waste will remain constant within different growth scenarios.

5.4 Growth profiles

5.4.1 Based on this assessment of the trends in Kent, Table 5.3 presents the series of waste growth scenarios used within this Review to provide an estimate of future household waste, along with assumptions about the non-household waste fraction:

- Scenarios 1a and 1b represent waste stabilisation/waste reduction scenarios, with Scenario 1a representing static growth in waste per household up to 2031 and Scenario 1b assuming a degree of waste reduction (0.2% per annum) approximately equivalent to the increase in waste over the last 3-5 years.
- Scenarios 2a and 2b represent average growth scenarios using of the average growth seen over the last 3 and 5 years.
- Scenario 3 represents high growth based on the level of growth between 2015/16 and 2016/17.

Table 5.3 LACW growth scenarios

Scenario	Waste per household assumptions	Non-household assumptions
1a	Static household waste per household based on the average of annual arisings over the last five years, of 1.065 tonnes/household.	Non-households remains static at 2016/17 level of 41,750 tonnes per annum.
1b	Static household waste per household based on the average of annual arisings over the last five years, of 1.065 tonnes/household up to 2020/21; followed by a reduction of 0.2% per annum in waste/household up to 2031.	Non-households remains static at 2016/17 level of 41,750 tonnes per annum.
2a	The household waste per household grows, from the 2017/18 figure of 1.070 tonnes/household, at 0.18% per annum based on the annual average change since 2014/15	Non-households remains static at 2016/17 level of 41,750 tonnes per annum.
2b	The household waste per household grows, from the 2016/17 figure of 1.070 tonnes/household, at 0.24% per annum based on the annual average change since 2012/13	Non-households remains static at 2016/17 level of 41,750 tonnes per annum.
3	The household waste per household grows, from the 2016/17 figure of 1.070 tonnes/household, at 0.72% per annum based on the change over between 2015/16 and 2016/17	Non-households remains static at 2016/17 level of 41,750 tonnes per annum.

5.5 LACW forecast

5.5.1 The resulting LACW forecasts based on the growth scenarios set out in Table 5.3 are presented in Table 5.4 and Figure 5.1. Figure 5.1 includes historic LACW arisings back to 2007/08, not least to highlight the impact of the recession on LACW and to show the predicted forecasts in context with previous years.

5.5.2 This forecast indicates **a variance of between +88,000 to +193,000 tonnes[15] of LACW arisings[16]** with the conclusions drawn in the KCC LACW Need Assessment.

5.5.3 This is because the low level of growth assumed in the KCC LACW Assessment is equivalent to the change in household waste per household, but fails to go on to factor in housing growth. The forecast in the KCC LACW Need Assessment is equivalent to a 1% per annum reduction on household waste per household up to 2030/31, which is not substantiated by the current data.

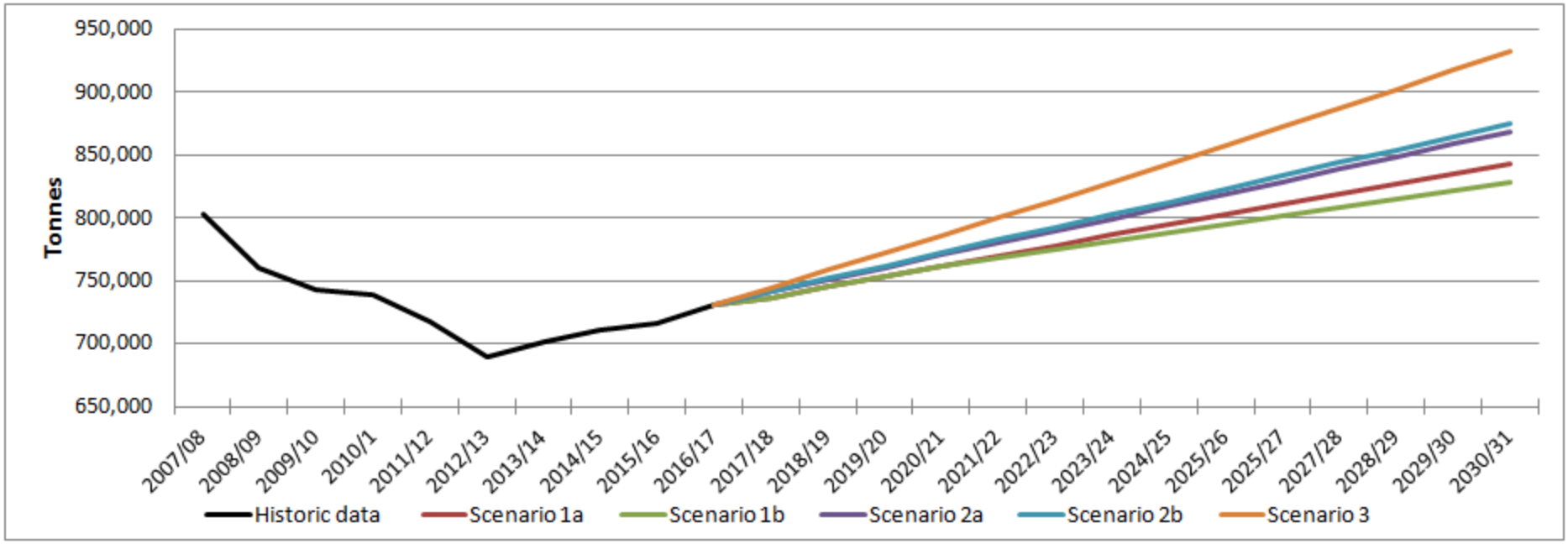
[15] Rounded to the nearest 1,000

[16] The difference between 740,000 tonnes LACW arisings at 2031 in KCC LACW Need Assessment and 827,900 tonnes at 2031 in Scenario 1b or 932,700 tonnes in Scenario 3.

Table 5.4 LACW forecast, Kent, 2017/18 to 2030/31 (rounded to nearest 100 tonnes)

Scenario	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2025/27	2027/28	2028/29	2029/30	2030/31
1a	731,143	736,700	745,200	753,700	762,000	770,200	778,400	786,600	794,800	802,900	811,200	819,400	827,600	835,700	843,800
1b	731,143	736,700	745,200	753,700	762,000	768,700	775,500	782,100	788,800	795,300	802,000	808,600	815,100	821,500	827,900
2a	731,143	741,200	751,000	761,000	770,700	780,300	790,000	799,700	809,500	819,200	829,100	839,000	848,800	858,600	868,400
2b	731,143	741,600	751,900	762,200	772,400	782,500	792,600	802,800	813,100	823,300	833,700	844,100	854,400	864,800	875,200
3	731,143	745,000	758,700	772,600	786,400	800,300	814,400	828,600	843,100	857,500	872,300	887,200	902,300	917,400	932,700

Figure 5.1 LACW forecast, Kent, 2017/18 to 2030/31 (rounded to nearest 100 tonnes)



6. Conclusions of the WTI LACW Review

6.1.1 The key conclusions drawn through this Review are that the KCC LACW Need Assessment is not based on the best evidence and does not incorporate sensitivity analysis (high or low growth).

6.1.2 To assess future capacity need, the KCC LACW Need Assessment is based on assumptions about the proportions of waste that will be handled via different waste management routes (driven by recycling/composting rates). Table 6.1 summaries the proportions used in the KCC LACW Need Assessment to estimate future capacity need in Kent (up to 2030/31) for LACW. waste.

Table 6.1 Waste management route for LACW and C&I waste as used in KCC LACW Need Assessment

LACW	**Milestone years**			
Management route	2015/16	2020/21	2025/26	2030/31
Recycling and composting	45%	50%	55%	55%
Other recovery	53%	48%	43%	43%
Landfill	2%	2%	2%	2%

6.1.3 No sensitivity analyses for either different levels of waste generation or different proportions handled via different waste management routes have been considered in the KCC LACW Need Assessment.

6.1.4 Table 6.2 summaries the sensitivities tested in this Review, which consider the different capacity needs, taking account of different proportions of waste management routes and different levels of waste generation.

6.1.5 It has been assumed that:

- the other recovery proportion is based on the level of recycling/composting achieved; and
- the proportion sent to landfill remains at 2%, as this is consistent with the currently level of 2.8% LACW being landfilled.

Table 6.2 Sensitivity analysis scenarios

Waste generation	Management route		Milestone years		
			2020/21	2025/26	2030/31
Low (Sc. 1b) Central (Sc. 2b) High (Sc. 3)	Recycling lower than Partial Review	Recycling and composting	45%	47.5%	50%
		Other recovery	53%	50.5%	48%
		Landfill	2%	2%	2%
Low (Sc. 1b) Central (Sc. 2b) High (Sc. 3)	Partial Review	Recycling and composting	45%	55%	55%
		Other recovery	48%	43%	43%
		Landfill	2%	2%	2%
Low (Sc. 1b) Central (Sc. 2b) High (Sc. 3)	Recycling higher than Partial Review	Recycling and composting	50%	55%	60%
		Other recovery	48%	43%	38%
		Landfill	2%	2%	2%

6.1.6 Table 6.3 presents the tonnages by management route and waste generation levels for the sensitivity scenarios.

Table 6.3 Sensitivity analysis results (tonnages rounded to nearest 1,000 tonnes)

Management route		Milestone years		
		2020/21	2025/26	2030/31
Recycling lower than Partial Review	Recycling and composting	45%	47.5%	50%
	Low (Sc. 1b)	343,000	378,000	414,000
	Central (Sc. 2b)	348,000	391,000	438,000
	High (Sc. 3)	354,000	407,000	466,000
	Other recovery	53%	50.5%	48%
	Low (Sc. 1b)	404,000	402,000	397,000
	Central (Sc. 2b)	409,000	416,000	420,000
	High (Sc. 3)	417,000	433,000	448,000
	Landfill	2%	2%	2%
	Low (Sc. 1b)	15,000	16,000	17,000
	Central (Sc. 2b)	15,000	16,000	18,000
	High (Sc. 3)	16,000	17,000	19,000
Partial Review	Recycling and composting	45%	55%	55%
	Low (Sc. 1b)	343,000	437,000	455,000
	Central (Sc. 2b)	348,000	453,000	481,000
	High (Sc. 3)	354,000	472,000	513,000
	Other recovery	48%	43%	43%
	Low (Sc. 1b)	366,000	342,000	356,000
	Central (Sc. 2b)	371,000	354,000	376,000
	High (Sc. 3)	377,000	369,000	401,000
	Landfill	2%	2%	2%
	Low (Sc. 1b)	15,000	16,000	17,000
	Central (Sc. 2b)	15,000	16,000	18,000
	High (Sc. 3)	16,000	17,000	19,000
Recycling higher than Partial Review	Recycling and composting	50%	55%	60%
	Low (Sc. 1b)	381,000	437,000	497,000
	Central (Sc. 2b)	386,000	453,000	525,000
	High (Sc. 3)	393,000	472,000	560,000
	Other recovery	48%	43%	38%
	Low (Sc. 1b)	366,000	342,000	315,000
	Central (Sc. 2b)	371,000	354,000	333,000
	High (Sc. 3)	377,000	369,000	354,000
	Landfill	2%	2%	2%
	Low (Sc. 1b)	15,000	16,000	17,000
	Central (Sc. 2b)	15,000	16,000	18,000
	High (Sc. 3)	16,000	17,000	19,000

6.1.7 The tonnage ranges for 'other recovery' by 2030/31, which need to be compared against the estimate of 317,968 tonnes in the KCC LACW Need Assessment are:

- Recycling lower than Partial Review management route scenario: 397,000 to 448,000 tonnes
- Partial Review management route scenario: 356,000 to 401,000 tonnes
- Recycling higher than Partial Review management route scenario: 315,000 to 354,000 tonnes

6.1.8 This sensitivity analysis indicates **a variance of up to 130,000 tonnes[17] of residual LACW** at 2030/31with the conclusions drawn in the KCC LACW Need Assessment.

6.1.9 The sensitivity analysis highlights that the estimate in the KCC LACW Need Assessment:

- is at the bottom end of the sensitivity range and would require high levels of recycling and composting and low growth in LACW, which is not substantiated by the current evidence; and
- could result in insufficient 'other recovery' capacity being assumed for the management of LACW generated in Kent.

6.1.10 It should also be noted that these estimates do not take account of the LACW produced in Medway, which has historically worked jointly with KCC on waste policy and planning.

[17] The difference between 317,968 tonnes residual LACW at 2031 in KCC LACW Need Assessment and 448,000 tonnes other recovery demand at 2031 in Recycling lower than Partial Review. Rounded to nearest 1,000.

hendeca

WHEELABRATOR TECHNOLOGIES INC

RESPONSE TO PARTIAL REVIEW OF THE KENT MINERALS AND WASTE LOCAL PLAN

Annex B - WTI C&I Review and WTI RDF Review

hendeca ltd
28 March 2018

1. Introduction

1.1 The WTI C&I Review

1.1.1 Dated 17th November 2017, KCC issued document title 'Kent Waste Needs Assessment 2017, Commercial & Industrial Waste Generated in Kent Management Requirement: Report Post Consultation', version 1.2 (KCC C&I Need Assessment).

1.1.2 The KCC C&I Need Assessment is a key area of concern in the evidence base prepared to underpin the Partial Review. This report presents the WTI C&I Review. Unlike the WTI LACW Review, this is not a comprehensive need assessment for C&I waste generated in Kent. WTI has previously made submissions regarding its concern with the approach used in BPP Consulting's approach to estimating future C&I waste management needs. This Review focusses on two areas that cause most concern:

- the treatment of 'Not Codeable' waste (Section 2); and
- the management route that is assumed for C&I waste (Section 3).

1.2 The WTI RDF Review

1.2.1 In addition, this report contains the WTI RDF Review (at Section 4) which explicitly calculates how much RDF is generated in Kent, from Kent's waste arisings, but is then lost to recovery capacity on mainland Europe.

2. 'Not Codeable' Waste

2.1 Introduction

2.1.1 The origin of waste is normally recorded in the Waste Data Interrogator (WDI) at the sub-region or waste planning authority (WPA) level, however when the origin of the waste is not known to this level the term 'Not Codeable' is used and the origin attributed to the region of origin.

2.1.2 This means that wastes can be identified as arising in the South East but 'Not Codeable' to a sub-region or WPA. This in turn means that there is the potential for wastes that arise in Kent to be reported in the 'Not Codeable' wastes at the South East level, and consequently missed as being generated in Kent.

2.1.3 'Not Codeable' tonnages within the WDI can be significant. Table 2.1 shows data for the last three available years of the WDI for 'Coded'' and 'Not Codeable' with South East Region recorded as the origin. The figures highlight that 14% to 15% of the tonnage 'Coded'' to the South East cannot be 'Coded'' to the WPA level.

2.1.4 Therefore when estimating the amount of C&I waste generated in Kent, consideration needs to be given to a proportion of the 'Not Codeable' waste that might have its origin in Kent. This does not appear to have been undertaken in the KCC C&I Need Assessment

Table 2.1 Quantity of 'Coded' and 'Not Codeable' waste with South East Region as origin

Year	Total Tonnes '*Coded*' to the South East	Tonnes '*Not Codeable*' to WPA level in South East	Tonnes '*Coded*' to WPA level in South East	Tonnes '*Coded*' to Kent	Tonnes '*Coded*' to Kent as % of tonnes '*Coded*' to WPA level in South East
2014	28,879,223	3,955,862	24,923,361	5,457,226	22%
2015	29,238,162	4,103,843	25,134,319	4,465,377	18%
2016	30,960,260	4,590,523	26,369,737	5,095,817	19%

2.2 'Not Codeable' waste generated in Kent

2.2.1 Table 2.1 shows that the waste 'Coded'' to Kent makes up approximately 20% of the waste in the South East Region 'Coded' to WPA level.

2.2.2 Applying this percentage such that it is assumed that waste from Kent makes up 20% of 'Not Codeable' tonnage from the South East Region (i.e. the same proportion as the waste 'Coded' with an origin of Kent) would mean that there could be an additional 920,000 tonnes to consider in the analysis of C&I waste generated in Kent in 2016.

2.2.3 However, it needs to be remembered that the 'Not Codeable' tonnage will include non-C&I waste tonnages (e.g. CD&E wastes) and an element of double counting (waste handled through transfer stations).

2.2.4 In 2016, there were three predominant List of Waste (LoW) Chapters in the 'Not Codeable' tonnage (rounded to nearest 1,000 tonnes):

- Ch17 - Construction and Demolition Wastes: 1,730,000 tonnes
- Ch19 - Waste and Water Treatment Wastes: 1,203,000 tonnes
- Ch20 - Municipal Wastes: 1,353,000 tonnes

2.2.5 Of these principal waste steams:

- LoW Ch17 wastes need to be discounted because they cover CD&E wastes that are not C&I wastes;
- LoW Ch19 wastes covers wastes from waste management facilities and will include wastes handled through transfer stations and intermediate treatment process (such as RDF production), these should also discounted to avoid double counting.

2.2.6 This leaves the municipal waste element (LoW Ch20) of the 'Not Codeable' tonnage to be considered. When it is assumed that 20% of that tonnage from the South East Region is generated in Kent, this results in up to an additional 270,000 tonnes to be considered when estimating C&I waste arisings.

2.2.7 Whilst this is considered to be a reasonable assumption, it is noted that:

- the origin of all the waste generated in Kent could be correctly coded; and
- the 'Not Codeable' wastes reported against LoW Ch20 are likely to include an element of Local Authority Collected Waste (LACW) which should not be included in C&I waste estimates.

2.2.8 In conclusion, it is reasonable to assume **a range of 0 and 270,000 tonnes of C&I wastes generated in Kent** could be included in the wastes reported in the WDI with origins 'Not Codeable' to WPA level in the South East.

3. Management Route Allocations for C&I Waste

3.1 Introduction

3.1.1 The assessment of any future capacity need should be based on two principal elements:

3.1.2 estimated waste arisings; and

3.1.3 the assumptions related to the allocation of management routes, i.e. the levels of recycling/composting that may be achieved and the resultant residual waste treatment and disposal capacity required.

3.1.4 In the WTI LACW Review (Section 6) waste management routes for LACW waste as presented in the KCC LACW Need Assessment were considered. The proportions of LACW to be handled via different waste management routes were broadly in line with current EC proposals and future capacity was tested through a series of sensitivity analyses.

3.1.5 Set out in this section is a review of the treatment route allocations for C&I waste as used in the KCC C&I Need Assessment.

3.2 KCC C&I Need Assessment management route allocations

3.2.1 To assess future capacity need the KCC C&I Need Assessment is based on assumptions about the proportions of waste which will be handled via different waste management routes. Table 3.1 summaries the proportions used in the KCC C&I Need Assessment to estimate the capacity need in Kent up to 2030/31 for C&I waste.

Table 3.1 Waste management route for C&I waste in KCC C&I Need Assessment

C&I waste	Milestone years			
Management route	**2015/16**	**2020/21**	**2025/26**	**2030/31**
Recycling and composting	70%	70%	70%	70%
Other recovery	25%	28%	28%	28%
Landfill	5%	2%	2%	2%

3.2.2 No sensitivity analyses was undertaken in the KCC C&I Need Assessment to consider different proportions handled of waste handled via different waste management routes. Further, whilst the assumed proportions of waste handled through different management routes for LACW can be justified by the current data; there is no evidence presented to substantiate the assumed management routes for C&I waste.

European Circular Economy Package

3.2.3 The circular economy is an alternative concept to the traditional linear economy (make, use, dispose) in which:

- resources are keep in use for as long as possible;
- the maximum value is extracted from them whilst in use; and
- products/materials are recovered and regenerated at the end of each service life.

3.2.4 The European Commission has adopted a Circular Economy Strategy, 'Closing the Loop', which is designed to stimulate Europe's transition towards a circular economy.

3.2.5 The Commission's Circular Economy package proposes amendments to six EU Directives with the aim of improving resource efficiency and creating a more circular economy resulting in major economic, environmental and social benefits. This action is intended to boost global competitiveness, foster sustainable economic growth and generate new jobs.

3.2.6 In December 2017, following much debate between Member States, the European Commission and representatives of the European Parliament, provisional agreement was reached on the revisions to the Waste Framework Directive and the Landfill Directive with the following targets agreed:

- 55% recycling target for municipal waste by 2025;
- 60% recycling target for municipal waste by 2030;
- 65% recycling target for municipal waste by 2035; and
- 10% limit on the landfilling of municipal waste by 2035.

3.2.7 On the 23rd February 2018, EU ambassadors endorsed the provisional agreement on the four legislative proposals of the Circular Economy package reached with the European Parliament in December 2017.

3.2.8 The UK's decision to leave the European Union does place a degree of uncertainty over the development and implementation of future environmental policy and legislation over the next few years.

3.2.9 However, the 25-Year Environment Plan published by Defra in January 2018 makes a number of statements with regards to future environmental policy and legislation. Most notability with regards minimising waste, the 25-Year Plan makes the commitment:

'*meeting all existing waste targets – including those on landfill, reuse and recycling – and developing ambitious new future targets and milestones*'.

3.3 Implications for management route allocations for C&I waste

3.3.1 Section 2 of this Review highlights a key concern of the C&I waste baseline estimates presented in the KCC C&I Need Assessment and the potential underestimation. However, as a full C&I waste analysis and forecast has not be undertaken in this Review, the implications of alternative management route allocations have been prepared using the forecast presented in the KCC C&I Need Assessment.

3.3.2 Two alternative treatment route allocations have been considered:

A. Circular Economy package recycling/composting and landfill targets, with the 2035 landfill target applied from 2020.

B. Circular Economy package recycling/composting targets and the landfill targets proposed in the KCC C&I Need Assessment.

3.3.3 Table 3.2 summarises the alternative treatment route allocations and the resultant tonnage allocations.

Table 3.2 Summary of alternative management route allocations

Year	2021	2026	2031
KCC C&I Need Assessment Forecast (Table 26, tonnes)	**1,274,082**	**1,338,702**	**1,407,630**
Treatment route allocations in KCC C&I WNA			
Recycling and composting	70%	70%	70%
Other recovery	28%	28%	28%
Landfill	2%	2%	2%
Resultant tonnage allocations in KCC C&I Need Assessment (rounded to nearest 1,000 tonnes)			
Recycling and composting	892,000	937,000	985,000
Other recovery	357,000	375,000	394,000
Landfill	25,000	27,000	28,000
Alternative treatment route allocations A: Circular Economy package with proposed limited landfill from 2020			
Recycling and composting	50%	55%	60%
Other recovery	40%	35%	30%
Landfill	10%	10%	10%
Resultant tonnage allocations (rounded to nearest 1,000 tonnes)			
Recycling and composting	637,000	736,000	845,000
Other recovery	510,000	469,000	422,000
Landfill	127,000	134,000	141,000
Alternative treatment route allocations B: Circular Economy package with KCC C&I Need Assessment landfill targets			
Recycling and composting	50%	55%	60%
Other recovery	48%	43%	38%
Landfill	2%	2%	2%
Resultant tonnage allocations (rounded to nearest 1,000 tonnes)			
Recycling and composting	637,000	736,000	845,000
Other recovery	612,000	576,000	535,000
Landfill	25,000	27,000	28,000

3.3.4 The KCC C&I Need Assessment has assumed ambitious aspirational targets for recycling and compositing that go well beyond the recently adopted European Circular Economy package targets. Whilst it is important to look to maximise recycling and composting, there is a significant risk of under provision for non-recycling / composting capacity if those aspirational targets are not achieved.

3.3.5 The figures in Table 3.2 highlight that 'Other recovery' capacity could be underestimated by **28,000[1] to 141,000 tonnes by 2031[2]**, even if the European Circular Economy package targets are achieved.

[1] The difference between 394,000 tonnes other recovery at 2031 in KCC C&I Need Assessment and 422,000 tonnes other recovery demand at 2031 in Alternative A.

[2] The difference between 394,000 tonnes other recovery at 2031 in KCC C&I Need Assessment and 535,000 tonnes other recovery demand at 2031 in Alternative B.

4. WTI RDF Review

4.1 Background

4.1.1 Between 2015 and 2017, just under 9 million tonnes of RDF was exported to Europe from England[3] for recovery/incineration:

- 2015: 2,779,592 tonnes
- 2016: 3,152,087 tonnes
- 2017: 3,014,597 tonnes

4.1.2 RDF manufacture is an intermediate treatment process and access to incineration facilities is needed for the RDF to be recovered. The quantity of RDF produced by a RDF manufacturing facility depends on:

- the types of process being used e.g. purely mechanical treatment or mechanical biological treatment;
- the combustible faction of the wastes to be processed, which will be influenced by the source e.g. LACW / C&I waste, the materials separated for recycling and the levels of recycling achieved.

4.1.3 Therefore when considering capacity need in areas where there is significant RDF manufacture, there is a need to consider the availability of incineration capacity for the RDF produced, if that area wishes to be broadly self-sufficient.

4.1.4 England currently utilises significant incineration capacity in Europe. However, the UK's decision to leave the European Union places a degree of uncertainty over the long term economic access to European facilities.

4.2 Major Notifiers

4.2.1 Between 2015 and 2017, there were a total of 59 notifiers, i.e. the company that notifies the RDF shipments under the Transfrontier Shipment of Waste Regulations 2007. It should be noted that the notifier is not always the company that produces the RDF.

4.2.2 21 of the 59 notifiers exported over 100,000 tonnes in the 3 year period between 2015 and 2017, which accounted for 86% of the total exports. Table 4.1 summarises the companies that notified over 100,000 tonnes between 2015 and 2017, providing a breakdown of the annual tonnages of RDF exported.

[3] https://data.gov.uk/dataset/international-waste-shipments-exported-to-england
https://ea.sharefile.com/share/view/sc1791badb1e4024a

Table 4.1 Top notifiers of RDF exports, 205 to 2017

Notifier	RDF exports (tonnes)			
	2015	2016	2017	3-year Total
Biffa Waste Services Ltd	325,337	417,100	460,383	1,202,820
N&P Alternative Fuels Ltd	204,242	314,785	288,074	807,102
SITA UK Ltd	234,850	348,266	48,981	632,097
Seneca Environmental Solutions Ltd	189,335	221,823	218,945	630,103
Andusia Recovered Fuels Ltd	225,047	209,320	183,965	618,332
FCC Recycling (UK) Ltd	200,522	216,271	178,259	595,052
Geminor UK Ltd	18,629	139,987	278,621	437,237
Shanks Waste Management Ltd	76,837	98,117	131,346	306,300
SUEZ Recycling and Recovery UK Ltd	-	-	289,051	289,051
Gemi UK Ltd	219,244	60,040	3,543	282,827
Countrystyle Recycling Ltd	67,437	76,959	78,899	223,295
Bertling Enviro	43,007	85,225	87,066	215,299
McGrath Bros (Waste Control) Ltd	75,441	69,584	64,556	209,580
Probio Energy Ltd	60,296	77,110	67,454	204,860
Veolia Environmental Services (UK) Plc	-	51,768	118,413	170,181
New Earth Solutions (Canford) Ltd	59,924	62,747	47,454	170,124
Greenway Waste Recycling	76,268	81,631	8,807	166,706
Associated Waste Management Ltd	36,935	57,825	51,978	146,739
Totus Environmental Ltd	46,611	48,472	35,905	130,988
Streetfuel Ltd	15,797	53,072	46,074	114,943
Mid UK Recycling Ltd	55,610	51,479	5,063	112,152
Others	548,222	410,506	321,761	1,280,489
Grand Total	**2,779,592**	**3,152,087**	**3,014,597**	**8,946,276**

4.2.3 Table 4.2 provides a summary of the destination countries by year and over the 3 year period, showing that between 93% to 96% of the RDF was sent to five countries:

- The Netherlands;
- Germany;
- Sweden;
- Denmark; and
- Norway.

4.2.4 The export data does not provide details of the facilities producing the RDF, the waste streams used to produce the RDF or where those facilities received the waste from.

4.2.5 Therefore, in isolation the export data cannot provide an estimate of the RDF produced in Kent, or whether it was produced from waste generated in Kent. However, used in conjunction with the Environment Agency's Waste Data Interrogator (WDI) the sites operated by the major notifiers can be further explored to aid our understanding of the RDF produced in Kent.

Table 4.2 Destination countries for RDF exports, 2015 to 2017

Countries of destination	RDF exports (tonnes)			
	2015	2016	2017	3-year Total
The Netherlands	1,279,963	1,527,131	1,539,720	4,346,814
Germany	667,061	698,335	641,218	2,006,613
Sweden	393,288	403,669	523,668	1,320,626
Denmark	179,983	198,268	36,292	414,544
Norway	99,592	117,660	135,559	352,811
Latvia	38,593	45,354	44,425	128,372
Belgium	56,895	51,528	5,139	113,562
Portugal	25,992	32,455	5,282	63,730
Cyprus	2,275	36,043	21,853	60,171
France	23,661	21,334	8,225	53,220
Poland		7,452	41,785	49,237
Estonia	10,045		7,514	17,559
Bulgaria	199	12,000	3,132	15,331
Unknown	2,044			2,044
Spain		857	299	1,156
Greece			487	487
Grand Total	**2,779,592**	**3,152,087**	**3,014,597**	**8,946,276**

4.3 Environment Agency, Waste Data Interrogator (WDI)

4.3.1 Data on the quantities of waste removed from permitted waste management facilities can be extracted from the WDI by waste type, destination and fate.

4.3.2 Running a query in the WDI for RDF removed from waste facilities, using LoW code 19 12 10 shows that 6.3 million tonnes of RDF was removed from permitted waste management facilities operating in England in 2016.[4]

Chapter 19 Wastes from Waste Management Facilities, Off-Site Waste Water Treatment Plants and the Preparation of Water Intended for Human Consumption and Water for Industrial Use

Sub-chapter 19 12 Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified

Waste Code 19 12 10 Combustible waste (refuse derived fuel)

4.3.3 Operators of permitted waste facilities are requested to provide information on the 'origin' of the waste accepted at their sites and the 'destination' of any waste that is removed from their site. The information on both 'origin' and 'destination' of the waste is supposed to be

[4] Most recent year available in the WDI

reported to local authority level, but can get reported at the waste planning authority, sub-regional, or regional level.

4.3.4 For wastes that are exported from England to outside the UK, operators are supposed to identify the recorded destination as 'Outside UK'. Filtering the data to present only RDF removed from waste facilities filter for destinations 'Outside UK', indicates that 2,975,229 tonnes of RDF was reported to have destinations 'Outside UK'.

4.3.5 This figure is broadly comparable with the 3,152,087 tonnes of exported RDF reported under the Transfrontier Shipment of Waste Regulations 2007. The difference in tonnage is potentially resulting from:

- the RDF may not be directly exported from the producing facility; and/or
- the operators not knowing the final destination.

4.3.6 The data quantify the amount of RDF removed from each permitted facility by region and sub-region, which means that an estimate of the quantity of RDF removed from facilities, or produced from waste arising, in the South East and Kent can be made.

4.3.7 A total of 569,539 tonnes of RDF were removed to 'Outside UK' from facilities in the South East of England, of which **198,532 tonnes were from facilities in Kent**. This is summarised in Table 4.3.

Table 4.3 RDF removed from permitted facilities in Kent to destinations 'Outside UK', 2016

Operator	Site Name	Permit No	Postcode	Tonnes of RDF removed to 'Outside UK'
Countrystyle Recycling	Countrystyle Recycling	XP3298HV	ME9 8SR	21,990
	Countrystyle Recycling	KP3539AJ		92,749
Pinden	Pinden Quarry	WP3598HY	DA2 8EB	22,367
Suez UK Environment	Sittingbourne Waste Transfer Station	CP3598HB	ME10 3TT	12,703
Thanet Waste Services	Richborough Hall Waste Transfer & Recycling Centre	MP3898HW	CT13 9NW	20,195
Veolia Environmental Services	East Kent RDF Facility	VP3130WU	CT3 4HQ	28,529
Total				**198,532**

4.3.8 Some of the operators use multiple permits at an operating location and therefore the permit number against which RDF removal was made may not be the permit against which waste was received at the site. For example, Countrystyle Recycling has three permits for its operations at Swale, but waste is only reported as being removed from two of the permit numbers.

4.3.9 To allow an assessment of the proportion of waste arising for Kent and the South East received at these facilities, Table 4.4 summarises the details of the permitted facilities at the locations from which RDF was removed along with the total tonnages received.

Table 4.4 Permitted facilities in Kent at the locations from which RDF was removed, 2016

Operator	Site Address	District	Site Name (Permit No)	Site Type	Tonnes	
					Annual Capacity	2016 Input
Countrystyle Recycling	Kemsley Fields Business Park, Ridham Dock Road, Iwade, Sittingbourne, Kent , ME9 8SR	Swale	Countrystyle Recycling (KP3539AJ)	Composting	200,000	172,380
			Countrystyle Recycling (XP3298HV)	Material Recycling Facility & Composting	200,000	40,447
			Countrystyle Recycling (HB3337AG)	Material Recycling Facility	100,000	101,459
Pinden	Pinden End Farm, Pinden End, Longfield, Dartford, Kent, DA2 8EB	Dartford / Sevenoaks	Pinden Quarry (WP3598HY)	Non-Haz Waste Transfer	413,200	283,291
			Pinden Quarry Lansfill (BV1674IL)	Hazardous Landfill	127,200	13,538
Suez UK Environment	Units 5 And 6, West Lane, West Lane Trading Estate, Sittingbourne, Kent, ME10 3TT	Swale	Sittingbourne Waste Transfer Station (CP3598HB)	Haz Waste Transfer	74,999	36,657
Thanet Waste Services	Richborough Hall, Ramsgate Rd, Sandwich, Kent, CT13 9NW	Dover	Richborough Hall Waste Transfer & Recycling Centre (MP3898HW)	Haz Waste Transfer	380,000	112,466
			Richborough Park (ZP3292EL)	Non-Haz Waste Transfer	450,000	110,848
Veo Environmental Services	Unit 3, Island Road, Hersden, Kent, CT3 4HQ	Canterbury	East Kent RDF Facility (VP3130WU)	Physical Treatment	40,000	30,264

4.3.10 Data on the 'origin' of waste received at these sites was extracted from the WDI and is summarised in Table 4.5. Table 4.5 shows total input into the sites, along with waste that has its:

- 'origin' identified as Kent; and
- 'origin' identified as South East Region (including Kent).

4.3.11 This allows the proportion of waste arising in Kent and South East Region at the sites producing RDF to be estimated. The figures show that a minimum of 50% of the material received at these sites had origins in Kent; this could be higher as the waste deposited at Pinden Quarry was 'Not Codeable' to the WPA level, only to the South East Region.

Table 4.5 Origin of waste at permitted facilities in Kent at the locations from which RDF was removed, 2016

Operator	Input from Kent		South East Region (including Kent)		Total input
	Tonnes	% of total input	Tonnes	% of total input	Tonnes
Countrystyle Recycling	219,453	70%	269,110	86%	314,286
Pinden	Not 'codeable' to WPA		283,291	100%	283,291
Suez UK Environment	36,657	100%	36,657	100%	36,657
Thanet Waste Services	223,314	100%	223,314	100%	223,314
Veolia Environmental Services	30,264	100%	30,264	100%	30,264
Total	**446,287**	**50%**	**842,635**	**95%**	**887,812**

4.3.12 Therefore between 50% and 95% of the RDF produced in Kent and removed to 'Outside UK' could be produced from wastes with reported origins in Kent or the South East.

4.3.13 This equates to **100,000 to 188,000 tonnes of RDF**[5] that has been manufactured in Kent with its original origin in Kent or the South East, which is currently reliant on incineration capacity outside of the UK.

[5] 50 to 95% of 198,532 tonnes, RDF removed from permitted facilities in Kent to destinations 'Outside UK', 2016, Table 4.3

5. Conclusions

5.1.1 This focussed Review has identified three areas of the evidence base where C&I wastes generated in Kent do not appear to be fully accounted for.

5.1.2 In summary these are:

- 'Not Codeable' wastes – 0 to 270,000 tonnes;
- Wastes arising through more reasonable management route proportion assumptions - 28,000 to 141,000 tonnes; and
- RDF generated in Kent but exported 'Outside UK' – 198,532, of which 100,000 to 188,000 tonnes was manufactured in Kent with its origin also in Kent or the South East.

hendeca

hendeca ltd
9601610 **company number**
4 Witan Way, Witney, Oxfordshire, OX28 6FF **registered address**

Comment

Agent	[redacted]
Email Address	[redacted]@hendeca.co.uk
Address	4 Witan Way Witney OX28 6FF
Consultee	[redacted]
Email Address	[redacted]@wtienergy.com
Company / Organisation	Wheelabrator Technologies Inc
Address	Portland House London SW1E 5BH
Event Name	Early Partial Review of the KMWLP Pre-submission consultation
Comment by	Wheelabrator Technologies Inc (Mr Chris Ratcliffe - 1149589)
Comment ID	7
Response Date	04/03/19 15:20
Consultation Point	Early Partial Review Pre-submission Draft (View)
Status	Submitted
Submission Type	Web
Version	0.1
Files	Response to Kent County Council_March 2018_28.03.2018_ and subsequent Meeting Notes

Which part of the Early Partial Review or element of its preparation does this representation relate to? Please be specific in terms of paragraph numbers and document title

Early Partial Review of the KMWLP - Pre Submission Draft 2018 Whilst a number of paragraphs are reference below, and could form the basis of a number of separate representations, WTI's objection is essentially that Early Partial Review of the KMWLP is based upon a flawed evidence base, such that policy amendments are not justified and do not provide adequate flexibility for sustainable waste management in Kent. Paragraph 6.2.4, first bullet: WTI believes that there remains a need for new residual treatment (or 'other recovery') capacity within Kent and consequently a need for the Waste Sites Plan. The first bullet should not be deleted Paragraph 6.2.5: The proposed edits are not justified and risk Kent facing a lack of residual waste treatment capacity, resulting in continued reliance on landfill. Efficient energy recovery facilities, using waste as a fuel, are well established as a key component of sustainable communities; such plant bring energy infrastructure and societal benefit alongside diversion from landfill. Paragraph 6.3.1: The amended text is predicated on a series of waste

need assessments, in regard to which WTI has consistently raised concerns. Those concerns have not been addressed within the evidence base to the Partial Review of the KMWLP. In addition, paragraph 6.3.1 refers to enabling the management of waste 'close to its source', which is not a wholly accurate representation of the nearest appropriate installation requirement of the Waste Framework Directive. The wording 'recovered in one of the nearest appropriate installation' is important, and involves consideration of more than just distance. Section 6.4: WTI believes that there remains a need for new other recovery capacity within Kent and consequently this section should include provision for residual waste treatment. This would provide a helpful steer to the waste industry, even where an approach of a mix of large and small sites is being followed. Deleted paragraph 6.5.4 should be retained: WTI has demonstrated that there remains a need for significant new capacity within Kent, beyond recycling processes. The deleted paragraph recognises that that sites should be protected from other development to allow that essential waste management infrastructure to come forward. Sites should be identified to enable residual waste to be diverted from landfill. Deleted paragraph 6.5.8 should be retained: Kent should seek to enhance the network of waste management infrastructure available across the county and to seek the benefits that can be gained by such an approach. Paragraph 6.8.1: The deleted text should be reinstated. A fundamental aim of the Partial Review of the KMWLP should continue to be to reduce the amount of waste sent to landfill. WTI has demonstrated, in its previous submission, that this will require addition other recovery capacity. Even if Kent does not agree with the WTI representations, the Partial Review of the KMWLP should retain flexibility and provide a positive policy framework for such facilities, enabling the industry to respond appropriately to a recognised demand. Kent Waste Needs Assessment 2018 – Capacity requirement for the management of residual non hazardous waste The overarching objection to this report is that it is based upon work completed in 2017 and upon which WTI has made representations that identified concerns regarding the approach, evidence and assumptions used. There seems to have been very little regard given to the representations made by WTI, for example no sensitivity analysis has been undertaken to test these documents of the evidence base, although this was a commitment made during a meeting between KCC and WTI. Specific areas of concern in relation to this report are set out below. Footnote 1, page 11: The reference to 562,500tpa of recovery capacity (at 2026) has been confirmed to WTI as being that set out in the adopted KMWLP. It is surprising that this figure continues to be relied upon, when the future requirements for waste management capacity in Kent should be considered afresh. The footnote continues to indicate that 'additional residual waste produced after this date is to be managed through landfill.' This indicates that the KMWLP, and its Partial Review, is predicated on an expectation that residual waste will be disposed to landfill, rather than treated for energy recovery, which is preferred in the waste hierarchy. There is just 7 years to 2026, demonstrating a short term approach has been adopted in the KMWLP Partial Review. Tables 5, 6 and 7: The report text refers to the CEP targets and applies these to C&I waste. But this approach is inconsistent with the approach used for LACW, which assumes a maximum of 2% residual wastes to landfill. Assuming 10% of C&I waste will be disposed to landfill, results in a high tonnage, and landfill outcomes that are very much higher than previously forecast in the previous report (November 2017). Table 9: Inappropriately includes capacity from the Barge Way facility, which has not yet commenced construction.

Your contact details will be taken from the "My Details" section on your account. Please ensure this is up to date. Anonymous responses will not be accepted.

Are you commenting as a:
. Local Business

Do you consider the Early Partial Review to be:

Legally compliant?
. Yes

Sound?
. No

Do you consider the Early Partial Review to be unsound because it is not:
. Positively prepared
. Justified
. Effective
. Consistent with national policy

Please give detail below on why you consider the Early Partial Review to be unsound and/or not legally compliant.If you have a positive comment to make on this section, please use this box.

Please note your representation should cover succinctly all the information, evidence and supporting information necessary to support/justify the representation as there will not normally be a subsequent opportunity to make further representations based on the original representation at this stage. After this stage, further submissions will be only at the request of the Inspector and based on the matters and issues he/she identifies for examination.

not Positively prepared. The Partial Review would fail to provide a policy framework for new residual waste management development in Kent. This is not a positive approach and means there is no strategy for the delivery of infrastructure that forms a key element of sustainable development.

not Justified. As WTI has previously commented, this approach is based on a poor evidence base that fails to consider reasonable alternatives or to provide a correct and comprehensive assessment of future needs. The Partial Review is not the most appropriate strategy based on a proportionate evidence base.

not Effective. The Partial Review presents the planning policy intended to apply to waste management in Kent for at least the next 10 years. Elements of the Partial Review are not believed to be deliverable over the plan period (for example increased recycling rates) and would fail to deliver a reasonable expectation of future waste management demand (i.e. residual waste treatment). The strategy provides no flexibility over the plan period and is likely to fail to be effective in delivering the required infrastructure.

not Consistent with national policy. Neither the evidence base nor the resultant Partial Review are consistent with national policy, for example through failing to properly consider future arisings and through the failure to provide a positive policy framework to enable appropriate development that should include residual waste management infrastructure.

These concerns interlink across a number of WTI's objections to the Partial Review.

The Kent Minerals and Waste Local Plan was only adopted in July 2016, less than two years ago. This is very little time to have undertaken any reasonable monitoring of the Plan or to understand waste arisings over time.

Approval of the Kemsley Sustainable Energy Plant would not be significant to policy if waste arisings across Kent have also increased and recycling rates remain constant (i.e. if the evidence base to the Partial Review is proven to be too constrained in its assumptions and the forecast need for new residual waste treatment capacity is consequently underestimated. In this situation (which WTI believes is likely) there would remain a need for new residual waste management infrastructure and the adopted policy (proposing to identify sites for waste development) would remain relevant.

The Partial Review seems to be a response to a fear of over-supply in waste management provision in Kent. Not only does this fear risk failing to deliver infrastructure recognised as a key component of sustainable communities, it is unsubstantiated. Waste is a market led commodity. Residual waste facilities require substantial finance to build; this represents a real investment into an area, but also a funding challenge for the developer. To gain the required finance it is necessary to demonstrate to lending institutions that there is waste available, ideally for more than the nominal throughput of any proposed plant. In short, no waste management company is going to build a plant it is not going to be able to operate; the risk of oversupply is subsequently minimal, and self-regulated by this commercial reality. The risk, of not providing a framework that enables sustainable waste management projects to come forward, is that more of Kent's waste is disposed of to landfill.

Much of WTI's previous representations remain valid, and these are submitted with this response.

Please explain in the box below what change(s) you consider necessary to make the Early Partial Review legally compliant and/or sound. Please be as precise as possible.

The Early Partial Review of the KMWLP should include explicit provision for new residual waste treatment capacity; ideally through the identification of sites at which new development would be appropriate in principle.

The evidence base to the Early Partial Review, principally the need assessments, should be comprehensively reviewed using the latest available data, clear and justified assumptions, and properly incorporate consideration of RDF produced and exported from Kent. In responding to the last round of consultation on the Partial Review, WTI undertook its own analysis of residual wastes arising in Kent and made the following conclusions:

- The WTI LACW Review identifies 88,000 to 193,000 additional tonnes of LACW arising and up to an additional 130,000 tonnes of residual LACW that should be diverted from landfill.
- The WTI C&I Review identifies an additional 0 to 270,000 tonnes of C&I wastes that are 'Not Codable' but expected to be generated in Kent; these wastes do not appear to be addressed in the KCC C&I Need Assessment.
- The WTI C&I Review identifies an additional 28,000 to 141,000 tonnes of residual C&I wastes that are likely to be require diversion from landfill as a result of the highly aspirational level of recycling assumed within the KCC C&I Need Assessment.
- The WTI RDF Review estimates that 198,532 tonnes of RDF was manufactured in Kent, with between 100,000 to 188,000 tonnes from waste generated in Kent or the South East, and exported outside the UK. If access to facilities on the European mainland is constrained, this places an additional demand on recovery capacity within Kent. This demand should be recognised in the Partial Review.

The need assessments undertaken to inform the Partial Review of the KMWLP consistently forecast residual wastes at the lower end of the ranges identified by WTI. The evidence base is demonstrated to be only providing for the lowest possible outcome, particularly in terms of residual waste, consequently the policy remaining in the Partial Review is not able to provide flexibility in ensuring a sustainable network of waste management infrastructure within the county.

If you have any additional material to submit in support if your response, please add it here.

Response to Kent County Council_March 2018_28.03.2018_ and subsequent Meeting Notes
Response to Kent County Council_March 2018_28.03.2018_ and subsequent Meeting Notes

Do you consider it necessary to attend and give evidence at any hearing sessions during the examination?

(Please Note: The Planning Inspector will determine whether hearing sessions are required and, if so, the most appropriate procedure to hear those who have indicated that they wish to participate at the hearing sessions during the examination)

Yes, I wish to speak to the Inspector at any hearing sessions

If you wish to participate at the hearing sessions during the examination, please outline why you consider this to be necessary.

WTI has consistently sought to engage positively with the plan making system, originally presenting a site for consideration in the Waste Sites Plan. The company has made representations at each stage of consultation on the Partial Review of the KMWLP and sought dialogue with KCC. To date, there is little evidence that WTI's substantive comments have been taken into account in finalising the policy of the Partial Review.

As outlined above, in response to question B5, WTI has identified the potential for there to be substantially greater tonnages of residual waste being generated in Kent than currently forecast in the Partial Review evidence base. If proper provision for residual waste treatment capacity is not made within the Partial Review, the resultant policy leaves waste generated in Kent vulnerable to being disposed of to landfill. WTI believes it is important that it is able to participate at the Hearings to ensure that its concerns are properly presented to, and understood by, the Inspector undertaking the Examination.

WTI is currently building K3 an energy from waste (EfW) generating station; it is expected to be operational by 2019. Consequently, WTI is currently seeking contracts with waste carriers for that facility. In addition, WTI operates a Waste to Energy (WtE) facility at Ferrybridge, West Yorkshire and is currently constructing a second WtE facility at the same site which will be operational in Q4 2019. WTI is progressing other projects across England and Wales. WTI therefore has a good understanding of the waste market both within Kent and beyond the county; WTI has valuable industry experience, both locally and nationally, to enable a comprehensive Examination of the Partial Review of the KMWLP.