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Your Ref: EN010110

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Contact: Alice Tithecott / Deborah Jeakins
Telephone: [REDACTED]
E Mail: PlanningDC@cambridgeshire.gov.uk



The Planning Inspectorate
National Infrastructure Planning
Temple Quay House
Temple Quay
Bristol
BS1 6PN

Place and Sustainability
Frank Jordan
Executive Director
New Shire Hall, Emery Crescent
Enterprise Campus, Alconbury Weald
Huntingdon
PE28 4YE

Electronic submission only

Dear Sir / Madam

Application by Medworth CHP Limited for an Order Granting Development Consent for the Medworth Energy from Waste Combined Heat and Power Facility

We are writing on behalf of Cambridgeshire County Council and Fenland District Council (the Cambridgeshire Authorities) regarding the Medworth Energy from Waste Combined Heat and Power Facility Development Consent Order (DCO) Examination.

Included with this submission are the following documents:

- CLA.D3.OS.A.C - Comments on the Applicant's Deadline 2 Submissions;
- CLA.D3.OS.A.AA - Appendix A to Comments on the Applicant's Deadline 2 Submissions (Cambridgeshire & Peterborough Waste Needs Assessment, 2019);
- CLA.D3.OS.A.AB - Appendix B to Comments on the Applicant's Deadline 2 Submissions (Plan 5100905-SKA-HGN-CR2-DR-CH-0001-S1);
- CLA.D3.ISH2.AP.R - Response to ISH2 and CAH2 Action Points; and,
- CLA.D3.ISH2.S - Written Summaries of Oral Representations Made at Issue Specific Hearing 2 and Compulsory Acquisitions Hearing 2 (CAH2).

The Cambridgeshire Authorities note that the email notification with the Action Points from ISH2, CAH1 and CAH2 was received at 7.16pm on Thursday 20 April 2023 and would ask PINS to note that any correspondence received after 5.30pm will be considered and classed as being dated and received the next working day. In respect of the date of Deadline 3 submissions, this only left the Councils with two working days to respond to the Action Points and whilst this was not onerous on this occasion, collating the necessary input to achieve such short timescales is likely to be a challenge in the future.

Yours sincerely

Frank Jordan
Executive Director, Place and Sustainability
Cambridgeshire County Council

Comments on the Applicant's D2 Submissions

This document sets out the comments by Cambridgeshire County Council (**CCC**) and Fenland District Council (**FDC**) (together, **the Councils**) on the Applicant's Deadline 2 (**D2**) submissions. The tables below set out the document in question that the Councils are commenting on, together with the relevant paragraph or reference number.

Except where expressly stated otherwise below, the Councils reiterate and rely on their comments submitted to the ExA at previous deadlines.

6.4 Environmental Statement Appendix 8B: Air Quality Technical Report (Tracked Changes) (Rev 3.0) [REP2-007]

Topic	Paragraph Number	Councils' Comment
Modelled road network	5.1.2	<p>The updated text indicates that the modelled road network is based on the extent of changes in traffic that would be considered significant in the Traffic and Transport chapter (Chapter 6) of the Environmental Statement [APP-033]. In terms of air quality, a change of 25 Heavy Duty Vehicles (HDV) or 100 Light Duty Vehicles (LDV) as Annual Average Daily Traffic (AADT) in an Air Quality Management Area (AQMA) could require air quality modelling, whereas these changes would not be identified as significant in the Traffic and Transport chapter.</p> <p>Therefore, it is still a requirement for the Applicant to determine whether there are any locations, beyond the modelled road network, where changes in traffic flow may exceed the criteria set out in the Institute of Air Quality Management and Environmental Protection UK guidance on 'Land-Use Planning & Development Control: Planning For Air Quality' (January 2017)¹.</p>

¹ Environmental Protection UK & the Institute of Air Quality Management (2017) 'Land-Use Planning & Development Control: Planning For Air Quality' [Online] Available at: [\[REDACTED\]](#) (Accessed: 19/04/2023)

7.3 Waste Fuel Availability Assessment (Tracked Changes) (Rev 2.0) [REP2-010]

Topic	Paragraph Number	Councils' Comment						
Updated WFAA	General	The update to the Waste Fuel Availability Assessment (WFAA) with updated data is welcomed. It is noted that the waste fuel availability as reported in this assessment is broadly similar to that described in the first version.						
Term "Waste Management Areas"	3.2.4 and throughout document	The term "Waste Management Area", whilst understandable is ambiguous. The areas referred to in this this assessment are based on areas identified within the Environment Agency's Waste Data Interrogator as Waste Planning Authority (WPA) areas.						
Milton Keynes (Travel Distance)	Page 26 Graphic 3: Waste Fuel Availability Assessment Study Area	<p>It is noted Milton Keynes (Unitary Authority / Waste Planning Authority) is identified on this map, where it was not in the first version. Milton Keynes appears to not be within the two-hour travel distance, as shown on Page 23 Graphic 2, but is listed as being within the Table 3.1 (and has been since the first version of the WFAA).</p> <p>Clarification is requested to establish if Milton Keynes is within the two-hour travel time study area, or if it should be excluded.</p>						
Total Local Authority Collected Waste 2020/2021 – Typographical Errors	Table 4.1	<p>There appears to be some typographic errors in this table.</p> <p>The ONS data for 2020/2021² has a figure of 314,669 for total local authority collected waste (tonnes) for Cambridgeshire and not the 414,668 which is reported in the WFAA. The 118,407 should also be changed to 18,408 (314,669 minus 296,261). Likewise, Lincolnshire currently reads 337,169 and should instead read 337,196.</p> <p>The row for Essex County Council (including Southend on Sea and Thurrock), appears to only include Essex and Thurrock, see table below for details:</p> <table border="1" data-bbox="817 1137 2033 1287"> <thead> <tr> <th>Local Authority</th> <th>Total local authority collected waste (tonnes)</th> <th>Household - total waste (tonnes)</th> </tr> </thead> <tbody> <tr> <td>Essex County Council</td> <td>713590</td> <td>684334</td> </tr> </tbody> </table>	Local Authority	Total local authority collected waste (tonnes)	Household - total waste (tonnes)	Essex County Council	713590	684334
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Essex County Council	713590	684334						

² Department for Environment, Food & Rural Affairs (2023) 'ENV18 - Local authority collected waste: annual results tables 2021/22' [Online] Available at: <https://www.gov.uk/government/statistical-data-sets/env18-local-authority-collected-waste-annual-results-tables-202122> (Accessed: 20 April 2023)

		<table border="1"> <tr> <td>Southend-on-Sea Borough Council</td> <td>83025</td> <td>78790</td> </tr> <tr> <td>Thurrock Council</td> <td>83292</td> <td>77345</td> </tr> <tr> <td>Total</td> <td>879,907</td> <td>840,469</td> </tr> </table> <p>(e.g., 684334 plus 77345 equals 761679, which is the figure reported for household waste for Essex, Southend on Sea and Thurrock in the WFAA).</p>	Southend-on-Sea Borough Council	83025	78790	Thurrock Council	83292	77345	Total	879,907	840,469
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Norfolk County Council	Table 4.6	The in-scope waste available for Norfolk is in the region of 41,000 tonnes per annum (WFAA Table 4.4).									
Cambridgeshire and Peterborough	Table 4.7	<p>See <i>Table 12 Permitted waste management capacity - not operational as of June 2019</i> in the Cambridgeshire and Peterborough Waste Needs Assessment November 2019 (submitted as Appendix A – CLA.D3.OS.A.AA Waste Needs Assessment). For the purposes of the capacity assessment, the capacity figure for PGEL / PREL that was used was 540ktpa, which was the original capacity detailed under permission 08/01081/ELE.</p> <p>Discharge of Condition decision 18/01259/DISCHG (2019) states the maximum capacity is 595ktpa. The other 35ktpa arose from a permitted but not yet constructed anaerobic digestion plant at West Fen Farm (see permission 2001/18/CW). In summary, 540ktpa plus 35ktpa equals 575ktpa (shortfall: 80ktpa plus surplus: 495ktpa)</p>									
Norfolk	Table 4.7	<p>The table states:</p> <p><i>“Table 2 (page 9) in the 2022 Capacity Assessment details the existing waste management capacity in Norfolk. Of the 3.534 million tonnes, ~927,000 tonnes of waste is transfer capacity only – 616,000 tonnes of which is for non-hazardous waste. Transfer capacity cannot be regarded as management capacity as it simply moves the waste on to somewhere else for treatment/ disposal.</i></p> <p><i>With this in mind, for the purposes of this WFAA, the transfer tonnage (616,000 tonnes per annum) for non-hazardous waste has been included as a shortfall of capacity in Norfolk. This figure remains significantly below the requirements indicated in earlier iterations of the emerging plan.”</i></p>									

		<p>The WFAA asserts that transfer capacity should be excluded from the capacity identified in Table 2 of the Norfolk Minerals and Waste Local Plan Waste Management Capacity Assessment (2022)³. Table 2 summarises tonnages received at sites in Norfolk breaking it down by “Site Category” and “Facility Type”. The WFAA seeks to exclude the “Site Type” of “Transfer”. It should be noted that within the Transfer Site Type the Facility Category are then broken down into different waste streams followed by Waste Transfer / Treatment. The “Site Category” field in the WDIs is known to be unreliable and unrepresentative of the operations that are taking place on the site; it generally reflects permitting regime that the site was originally permitted under, but not the complete range of activities on site.</p> <p>The issue of double counting waste (i.e., waste that moves through transfer stations), can be accounted for in several ways when undertaken assessments such as these. As detailed on page 40 of that report, the commercial and industrial waste arisings calculation was achieved by identifying all waste originating from Norfolk and subtracting Local Authority Collected Waste. Consequently, both the capacity and the arisings include consideration of transfer movements. Removing a large value of capacity which has already been accounted for in the arisings, and is based on a broad and unreliable “Site Category”, is an unrealistic distortion of the Norfolk Assessment.</p> <p>This is further reflected by the quantity of suitable fuel arising from Norfolk (Table 4.4 WFAA), which is in the region of 41,000 tonnes, and the fact the Applicant did not choose to locate their facility in Norfolk if there was such an under provision of capacity in that area.</p> <p>The Norfolk Assessment concludes that the Planning Practice Guidance (paragraph reference ID: 28-007-20141016) sets out how the self-sufficiency and proximity principles apply to individual Waste Planning Authorities. It states that although it should be the aim for each waste planning authority to manage all of its own waste, <i>“there is no expectation that each local planning authority should deal solely with its own waste to meet the requirements of the self-</i></p>
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³ Norfolk County Council (2022) ‘Norfolk Minerals and Waste Local Plan: Waste Management Capacity Assessment (Containing 2019 and 2020 Data)’ [Online] Available at: [REDACTED] (Accessed: 19/04/23)

		<p><i>sufficiency and proximity principles</i>". It is also considered that sufficient capacity currently exists to meet the growth forecast.</p> <p>The assessed shortfall should be either zero or show a surplus; as this figure is already being either recovered or disposed of elsewhere.</p>
Norfolk	Table 4.7 Summary	States that " <i>Data clearly indicates that there remains no final treatment/recovery capacity in Norfolk</i> ". This is inaccurate, as there are a number of recovery and treatment facilities located in Norfolk. As above the shortfall / surplus for Norfolk should read zero, or a surplus.
Grand Total	Table 4.7 Summary	<p>The totals presented range from -1,102,252 to -1,329,259. It is assumed that the 1,164,052 figure is a typographic error, and it should be (negative) -1,164,052.</p> <p>A total of 616,000 tonnes of these values arises from the Applicant's assessment of Norfolk's shortfall, and this represents between 46% and 56% of those total figures. Assuming the Norfolk shortfall be zero, this returns a range of -486,252 and -713,259.</p> <p>For reference, the Norfolk assessment identifies that there is likely to be a maximum of 3.65 million tonnes of waste from all waste streams, and that there is 3.534 million tonnes of capacity, with an additional 4.863 million cubic metres of permitted inert landfill void, and 1.422 million cubic metres of non-hazardous landfill void.</p>
Typographical error.	4.2.14	There appears to be a typographical error that attributes 695,000 tonnes of capacity to Peterborough Green Energy, which should read 595,000.

7.10 Outline Fire Prevention Plan (Tracked Changes) (Rev 2.0) [REP2-012]

Topic	Paragraph Number	Councils' Comment
Consultation with Cambridgeshire Fire and Rescue Service	General	<p>Noted that we are not yet at a detailed design stage. The Cambridgeshire Fire and Rescue Service (CFRS) would encourage early consultation under the Regulatory Reform (Fire Safety) Order 2005 and in line with Building Regulations and Fire Safety Procedural Guidance (July 2020) published by the National Fire Chiefs Council, Local Authority Building Control and the Association of Consultant Approved Inspectors, and stated good practice by MHCLG (now Department for Levelling Up Housing and Communities).</p> <p>Areas that will require further discussion and clarification to include:</p>

		<ol style="list-style-type: none"> 1. Water supplies – access and facilities for Fire and Rescue Service; 2. Fire suppression; 3. Containment of firefighting water run-off; and 4. Fire Detection and warning.
Fire Risk Assessment	General	<p>CFRS would like to highlight that a suitable and sufficient fire risk assessment of the premises must be carried out in accordance with article 9 of the Regulatory Reform (Fire Safety) Order 2005. The documentation and any necessary safety measures must be in place on the first day that the premises are occupied.</p> <p>Further detail will be required on:</p> <ol style="list-style-type: none"> 1. Training frequency and content ; and 2. Detailed Fire procedures.

9.8 Statement of Common Ground between Medworth CHP Limited and the UK Health Security Agency (Rev 2.0) [REP2-013]

Topic	Paragraph Number	Councils' Comment
Baseline provision of Health Care Facilities	3.4.2	UKHSA/OHID are not the appropriate body to agree the baseline of provision – this is a matter for the Cambridgeshire and Peterborough Integrated Care System (ICS). However, it is noted that the ICS have agreed the baseline in the Statement of Common Ground between the Applicant, the East of England Ambulance Service NHS Trust and the ICS [REP2-014].

10.2 Response to the ExA's Written Questions (ExQ1) (Rev 1.0) [REP2-019]

Topic	Paragraph Number	Councils' Comment
General and Cross Topic Questions, p.4-12		
Consultation with Gypsy and Travellers at New Bridge Lane Travellers Site	GCT.1.13	The Councils are concerned that the residents of the New Bridge Lane Traveller site are not included within the Book of Reference [REP1-001]. It is requested that the Applicant provides an explanation as to why they consider the residents/occupiers to not constitute Category 1, 2, or 3 Persons. In general, the Traveller community have poorer health outcomes compared to other communities and should be included in the process.
Principle and Nature of the Proposed Development, p.13-16		
Design	GCT.1.10	It is recognised that the development has to be of a scale and mass in order to accommodate the 'machinery' necessary. However, the proposed design mitigation that is proposed to

		make the buildings / structures as possible seem to be cursory at best. The poor appearance of the development is impactful on the appearance and attractiveness of the town as a whole.
Air Quality and Human Health, p.17-27		
Air Quality Data Capture Issues and COVID-19	AQHH.1.2	<p>Although the methodology for addressing data capture issues with the 12 months of passive monitoring of Air Quality (October 2020-December 2021) is sound, it may not have given an accurate background level as this period of monitoring was affected by COVID-19 lockdowns and associated restrictions.</p> <p>Although this has been acknowledged within the ES Chapter 6 Traffic and Transport [APP-033], it has not been carried through to the Health Impact Assessment [APP-043] or the Applicant's response to AQHH1.2 of the ExA's Written Questions (ExQ1).</p>
Dust monitoring	AQHH.1.17 and AQHH.1.18	The ExA's question relates specifically to monitoring of nuisance dust during the construction phase. The Councils note here that the Applicant's response is based on the Outline Local Air Quality Monitoring Strategy (LAQMS) [REP1-055], which only considers monitoring of pollutant concentrations in air from 12 months prior to final commissioning. The LAQMS does not address monitoring of nuisance dust during the construction phase. Dust nuisance monitoring during the construction phase is required by the CEMP [REP1-024], although the details have not been agreed with CCC/FDC at this stage.
Biodiversity, Ecology and the Natural Environment, p.28-31		
BIO.1.4	Page 30	<p>The Applicant's response does not explain why the design has not embedded Biodiversity Net Gain within the Scheme adequately, so that it does not result in a net loss of biodiversity. Similarly, the response does not explain why off-site compensation to address this issue had not been identified in detail prior to the Examination.</p> <p>The Applicant's response does not address the Councils' concerns that the Scheme does not adequately compensate for loss and fragmentation of water vole habitat, as set out in our Local Impact Report, paragraphs 7.3.12 – 7.3.16 and 7.4.12 – 7.4.14 [REP1-074] and the Councils' response to document [REP2-020] below</p>
Climate Change, p.32-35		
Climate Change	Table 2.5, CE1.4	The Councils disagree with the Applicant's assertion that the Proposed Development will have "net GHG emissions below zero". The Councils would like to reiterate their previous comments relevant to this issue, included in the Climate Change section of the joint Local Impact Report [REP1-074].

Climate Change	Table 2.5, CE1.5	The Councils disagree with the Applicant's assertion that the Proposed Development will result in "a net decrease in GHG emissions of approximately 2,571ktCO ₂ e over its lifetime". The Councils would like to reiterate their previous comments relevant to this issue, included in the Climate Change section of the joint Local Impact Report [REP1-074].
Compulsory Acquisition/Temporary Possession, p.36-39		
Draft Development Consent Order, p.40-50		
Environmental Statement, p.51-53		
Landscape and Visual, p.68-71		
Impact on NMUs and local communities	LV 1.3-1.6	<p>Whilst the ExA questions were aimed at specific addresses around the application site, the Councils would re-emphasise their concern about the significant adverse visual and noise impact of the development on non-motorised users (NMUs) from local communities using New Bridge Lane arising from the change to the immediate landscape both during construction operational phases.</p> <p>As raised in the joint Local Impact Report [REP1-074], NMUs are sensitive noise and visual receptors, but no mitigation measures have been presented that will address this adverse impact such as to ensure that NMUs will feel able to continue to use the lane as they currently do, and to be encouraged to do so in future. This is important in order to ensure that the Applicant meets the requirements of NPPF paragraph 100, Cambridgeshire CC's Rights of Way Improvement Plan (ROWIP)⁴ and Priority 2 of the Cambridgeshire & Peterborough Health & Wellbeing Integrated Care Strategy⁵.</p>

⁴ Cambridgeshire County Council (2006) 'Cambridgeshire Rights of Way Improvement Plan' [Online] Available at: <https://www.cambridgeshire.gov.uk/asset-library/Rights-of-Way-Improvement-Plan.pdf> (Accessed: 20 April 2023)

⁵ Cambridgeshire & Peterborough Integrated Care System (2022) 'Cambridgeshire & Peterborough Health and Wellbeing and Integrated Care Strategy' [Online] Available at: [REDACTED] (Accessed: 20 April 2023)

		<p>The Councils request that the Applicant reconsiders the impact on NMUs against these policies and provides measures to address the adverse impact. The Councils welcome the proposed measures to improve the environment along New Bridge Lane during the operational phase, but consider that it will not be possible to fully mitigate the impact on NMUs and local communities due to the introduction of significant HGV movements along New Bridge Lane, and because the new road layout will effectively reduce the quality of the NMU experience by confining users to a narrow pavement.</p> <p>There will also be considerable visual impacts on the wider landscape broadly west and south of the development, particularly affecting recreational users along the Nene Way, south of Wisbech (please refer to 5.3.11 of the Councils' LIR [REP1-074]); Halfpenny Lane, Wisbech; The Still at Leverington; and on the existing PROW and local road network around Elm (please refer to 5.3.6 of the Councils' LIR [REP1-074]). Experience from other DCO developments is that NMUs and other recreational users are significantly impacted by the urbanisation of their landscape, which may adversely affect their enjoyment of their use of the network to the extent that they no longer wish to use it. This can negatively impact mental health and wellbeing, and could cause some to drive to other locations further away to seek the same satisfaction.</p> <p>The Councils therefore request that the Applicant provides additional mitigation through provision of new, high quality NMU access nearby, for example through monies to improve existing rights of way and local roads that provide NMU connectivity in the vicinity of the development, and to create new access to the natural environment in the locality for the health and wellbeing of the local community.</p> <p>Part of this mitigation could include clarification of the NMU access over the level crossing, as set out in more detail at the Council's response to the Applicant's Response to the CCC and FDC Local Impact Report [REP2-020] under Traffic and Transport, 2.4.3.</p>
Noise and Vibration, p.75-77		
NMUs and local communities	General	NMUs are sensitive visual and noise receptors in the landscape. The Council refers to its response made under LV 1.3-1.6 above in respect of inadequate mitigation for the adverse

		impact during construction and operation of the development on NMUs and local communities using New Bridge Lane.
Planning Policy, p.78-84		
Waste Hierarchy	PP.1.2	<p>The Councils would draw attention to their Written Representations [REP2-033]. A short summary is set out below.</p> <p>The Councils remain concerned by the lack of detail in Requirement 14. In the Councils' Relevant Representation (RR) [RR-002], paragraph 14.21, three additional criteria are requested:</p> <p><i>“(#) Details of operational procedures that seek to ensure that waste suitable for recycling and reuse is not received at the facility. These procedures are to be regularly reviewed and improved, where possible;</i></p> <p><i>(#) A record of the tonnages of material considered suitable for recycling and reuse that has been diverted further up the Waste Hierarchy; and,</i></p> <p><i>(#) A record to be kept of how these procedures have been regularly reviewed (on an annual basis at a minimum), what changes were made, and how these have reduced the amount of waste potentially suitable for recycling and reuse being received at the facility.”</i></p> <p>As currently drafted, the requirement will establish that waste of the appropriate waste codes is being managed at the site, and this will move waste up the waste hierarchy from disposal to recovery. However, it does not seek to prevent waste becoming residual waste in the first instance, and as a result it does not preclude waste that could be treated further up the waste hierarchy being received at this site. For example, if the operator agreed to collect mixed black bag waste from a customer, this would be within the classification of 20 03 01 mixed municipal waste. As an operator, they can ensure that their customer is only offered segregated collection, or processed collection, to ensure that recyclable material is being removed from residual waste.</p>

		The requested additional criteria will ensure that the operator does this and can be seen to do this in a way that can be monitored. The requested additional criteria set out in the Councils' RR [RR-002] are reasonable, proportional, and necessary to ensure that the waste hierarchy is maintained.
Waste Technology	PP.1.5	It is noted that the Applicant addresses the different types of available technology but does not detail considerations regarding the scale of Energy Recovery Facility (ERF) being proposed, and the merits and disadvantages of the of ERF facilities of different sizes. Given the amount of waste in the immediate local area, the Councils would query whether a smaller facility might be more appropriate.
Socio-Economic, Population and Cumulative Effects, p.85-89		
Training Establishments	SPC.1.6	There are other training establishments which should be considered and engaged in relation to facilitating training and employment opportunities, including ARU Peterborough.
Traffic and Transport, p.90-94		
Baseline traffic surveys	TT.1.1	CCC can confirm that the undertaking of surveys in 2021 was accepted for the purposes of undertaking the Transport Assessment work.
Access and Rights of Way Plans	TT.1.13	<p>The Applicant has updated the Access and Rights of Way Plans [REP1-005] to show the boundaries of the public highway that fall within the DCO boundary. This is welcomed by the Councils.</p> <p>It is noted that where the DCO boundary does not include the full extent of a highway, the highway is only shown to extend as far as the DCO boundary, when in fact the highway boundary may be considered to be at another point outside the DCO red line. The Applicant is engaging with CCC on this matter.</p>

10.3 Applicant's Response to the CCC and FDC Local Impact Report (Rev 1.0) [REP2-020]

Topic	Paragraph Number	Councils' Comment
Introduction, p.3		
Traffic and Transport, p.17-52		
Highways Asset Management:	2.4.1	CCC reiterates that it requires appropriate processes for the certification of the design and construction of any amendments to the local highway network, with acceptance by the

<p>Construction Phase Impacts</p>		<p>Highway Authority of the infrastructure to be contingent upon this certification. It is requested that these provisions be included within the DCO.</p> <p>It is noted that there was discussion of this requirement at ISH2 on 12 April 2023 and that the Examining Authority instructed the Applicant to liaise with CCC to explore the drafting of protective provisions within the DCO that would address the Council’s concerns. CCC welcomes this opportunity for engagement.</p> <p>CCC does not accept that ‘Appendix 9.2A: Technical Meeting Note Traffic and Transport – Algores Way (Applicant’s response to the Relevant Representations – Part 9 Appendices’ [REP1-036] demonstrates <i>“that the number of vehicles which currently use the site is not too dissimilar to the number proposed by the Applicant during construction”</i>. In the opinion of CCC, the comparators used within the Note are selective and inappropriate in some areas. The Note draws conclusions based upon the levels of traffic permitted to use the existing site with those actually expected to be generated in the construction and operational phases of the Proposed Development. The existing site is not seen to be generating traffic at the maximum permitted levels. Furthermore, there are extensive comparisons between existing traffic levels on Algores Way with those expected. However, only Algores Way can be used at present, whilst construction and operational traffic will be able to use Cromwell Road and New Bridge Lane.</p> <p>The arbiter of the damage caused by the extraordinary traffic generated during the construction phase will need to be the “before”, “during” and “after” highway condition surveys, irrespective of the content of the Technical Note.</p>
<p>Highways Asset Management: Construction Phase Impact on NMUs and and other rights of access</p>	<p>2.4.3</p>	<p>The Applicant has addressed CCC’S question in respect of its intentions for the former level crossing on New Bridge Lane. Having an understanding that the Applicant, in discussion with Network Rail (NR) as owner of the level crossing, does not intend to re-create highway rights over the level crossing, assists CCC in assessing the impact of the works on the highway network and the rights of highway users.</p> <p>CCC needs to be satisfied that the Applicant’s agreement with Network Rail is sufficient in protecting the rights of those private and public users of New Bridge Lane who require, or may require, use of the level crossing during and after construction of the development. This</p>

		<p>should include the granting of permissive rights of access to NMUs, and protecting the right of access for those landowners and any other parties (such as the Internal Drainage Board or statutory undertakers) who have an interest in land to the east of the level crossing. Whilst public rights have not formally existed over the crossing since 1981, in practice the NMUs have had access over it for almost 40 years, providing an important safe route between communities within Wisbech away from busy roads. The provision of a specific permissive access agreement would add clarity for all existing and potential users of the 'opened' level crossing and would help to ensure that relevant public access and health policy requirements are met. CCC should be a party to this agreement. The permissive access would then be shown on the Council's webmap so that information about the status of the access was clear and available to the public.</p> <p>The Applicant notes in its response to CCC that a bollard is proposed to be placed to the east of the proposed access into the EFW CHP facility. It is implicit that this is intended as a measure to prevent New Bridge Lane from becoming a through-route by virtue of the opening of the level crossing. While it is noted that this is simply a re-location of the existing restriction some 100m eastward, it does change the point on the highway at which the restriction becomes practically effective. To make such a change would require a traffic regulation measure in the DCO; something that is not currently included. This will require rectification if the Applicant wishes to introduce a new restriction on motor vehicles, and further engagement with CCC is requested on this matter. CCC notes here that the issue was discussed with the Applicant on 13 April 2023, and the Applicant has indicated further engagement will be forthcoming.</p> <p>Further, the introduction of this new bollard does have an impact on how users of the highway, not least the owners/occupiers of land, can take access to the eastern side of the level crossing. Effectively, the ability to access the eastern side of the level crossing is currently enshrined for all types of user <i>as of right</i> by the presence of public highway rights, with users able to take access to this section of New Bridge Lane via New Drove. The introduction of a bollard to the east of the EFW CHP facility entrance would remove this right for motorists because the draft DCO does not create an alternative route for a public vehicular access by re-introducing highway rights over the former level crossing (as noted above, access across the former level crossing is by NR's permission).</p>
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		<p>It follows that the public's <i>as of right</i> ability to use the (approx.) 100m of impacted highway with a motor vehicle is removed. CCC needs to be satisfied that the public right of access is not unreasonably diminished and that the affected landowners/occupiers are content with the effect that the proposed changes will have on their ability to access land in which they have an interest. Further engagement with the Applicant on this matter is requested. It is again noted here that CCC discussed this with the Applicant on 13 April 2023.</p>
Level of Damage to the Highway	2.4.5	<p>Notwithstanding the Applicant opining that <i>"there should be little or no additional damage to the condition of the highway caused by the construction of the Proposed Development"</i>, the condition surveys (to the adopted and unadopted [FDC owned] highway) will be required to determine the level of damage caused by the extraordinary traffic.</p>
Highways Asset Management: Construction Phase Impacts on NMUs and local communities	2.4.6	<p>The Applicant's response has not sufficiently addressed CCC's concern about the protection of access for NMUs of New Bridge Lane during the construction phase. Details on how this will be done are not included within the Outline Construction Traffic Management Plan (CTMP) [REP1-011], and the draft CTMP itself (which has been shared with CCC directly by the Applicant) does not include sufficient reassurances.</p> <p>CCC is engaging with the Applicant to seek amendments to the CTMP that would meet the requirements of the Council and the needs of NMUs affected by the proposed works. Until such time that the requested amendments are incorporated, CCC will not consider that its concerns have been satisfied.</p> <p>The Outline Construction Environmental Management Plan (CEMP) [REP1-022] makes no reference to the impact that construction works will have on NMUs using New Bridge Lane, in terms of their status as visual and noise receptors. Any mitigation strategy should demonstrate consideration of NMUs that use New Bridge Lane and appropriate mitigation measures should be proposed where necessary.</p> <p>Section 4.3 of the Outline CEMP, while providing details of the construction site fencing and hoarding, does not make any mention of how those measures may be used to mitigate the impact of construction on NMUs using New Bridge Lane. CCC requests further information on the Applicant's intentions for this. The Council refers to its recommendations regarding additional mitigation that could be provided to offset the adverse impact of the development</p>

		under its response to the Applicant's response to ExAQ1, LV 1.3-1.6 [REP2-019]. and in the Council's response to the Applicant's Response to the CCC and FDC Local Impact Report (Rev 1.0) [REP2-020] at 2.4.3.
Highway Asset Management: Operational Phase Impacts	2.5.3	<p>The Applicant appears to be confusing comments made by CCC regarding the effect of traffic volumes and the appropriateness of network capacity with those associated with the damage to the network that operational traffic will cause.</p> <p>It remains CCC's position that the future effects of operational traffic on the local highway network, specifically the ongoing damage that it will cause to the network, will need to be assessed and appropriate upgrading of the structural and surfacing courses of the roads undertaken to preclude this damage. Such works would be required to be funded by the Applicant.</p>
Highway Asset Management: Decommissioning Phase Impacts	2.6.2	<p>The Applicant makes reference to the provision of new/amended highway asset information and commuted sums to CCC via the Section 278 process, as well as the provision of a 12-month maintenance period. It is welcomed that the Applicant is committed to this and CCC anticipates further constructive engagement on this matter.</p> <p>Should a permissive path agreement for NMUs over the level crossing, it will be important that provision is made for access to remain beyond the life of the development until such time as a decision is made on the reopening or otherwise of the railway line, in order to maintain this important NMU access for local communities.</p>
Highway Development Management: Construction Phase Impacts	2.7	<p>It was agreed at ISH2 on 13th April 2023 to convene a meeting to review the proposed works. A meeting is to be held between Medworth CHP Ltd and CCC on 27th April 2023.</p> <p>Heads of Terms for the S278 Agreement are currently being negotiated; requirements need to be reflected in protective provisions.</p>
30mph speed limit proposal for New Bridge Lane	2.7.23	<p>The Applicant's proposal to reduce the speed limit on the area of New Bridge Lane affected by its works is welcomed. However, there are currently no clauses in the draft DCO which introduce the relevant traffic regulation measures to alter the speed limit. Including such measures in the draft DCO would provide clarity to the public over the Applicant's intentions and would circumvent the requirement to undertake a separate order-making process to alter the speed limit. Any requirement to complete separate order-making processes may impact on the timescales for delivery of other elements of the proposed works.</p>

Forecast flows used to model the effects of construction and operational traffic	2.10.6	CCC are not in dispute that the forecast flows as set out in ES Chapter 6 Traffic and Transport Appendix 6B Transport Assessment (Volume 6.4) [APP-073], referred to by the Applicant are agreed. However, the variance of flows across the hourly periods has not been considered in the above document.
Cromwell Road / New Bridge Lane Junction – Transport Assessment	2.10.7 and 2.10.8	<p>The Assessment Work and modelling carried out in ES Chapter 6 Traffic and Transport Appendix 6B Transport Assessment (Volume 6.4) [APP-073] referred to by the Applicant, does not adequately consider the safety issues that may arise as a result of the proposed volumes of HGVs turning across opposing traffic lanes. This concern, and that stated in the above response to 2.10.6, underpins CCC's request for the junction to be signalised in association with this proposal.</p> <p>A meeting was held on the 13th April 2023 in which CCC's signals team gave their verbal comments on the design of the signalised junction. CCC's signals team explained to the Applicant that their proposed concept junction design relies on 'gap seeking' right turns.</p> <p>Vehicles turning right are still required to cross the opposing lane, whilst southbound traffic on Cromwell Road is travelling through the junction. This design will not therefore alleviate the concerns of CCC in respect of the conflict caused by HGVs turning across opposing traffic lanes.</p> <p>CCC have produced a design for a signalised junction which does not rely on 'gap seeking' right turns. That is to say that the southbound traffic on Cromwell Road is held at a red signal when vehicles are turning right into Newbridge Lane. This signalised junction design was prepared as part of the Wisbech Access Transport Study. A copy of this plan (ref: 5100905-SKA-HGN-CR2-DR-CH-0001-S1) is submitted as Appendix B to this document [CLA.D3.OS.A.AB], as requested by the Inspector at ISH2.</p> <p>However, the implementation of this junction required land currently outside the current DCO boundary and thus cannot currently be secured as part of this DCO application. Further to the meeting held on 13^h April 2023, the Applicant is looking to produce a satisfactory junction design which removes the conflict between right turning vehicles and the opposing traffic on Cromwell Road within the DCO land. This will be discussed in a further meeting on 27th April 2023.</p>

<p>Public rights of way: Construction and Operational Phase Impacts on NMUs and local communities</p>	<p>2.16 and 2.17</p>	<p>CCC has engaged directly with the applicant regarding the impact of its proposed works on the PROWs, Wisbech Byway 21 and Elm Byway 6. These two PROW adjoin the A47 at opposite sides of the carriageway, and therefore in order to continue from one PROW onto the other it is essential to cross the A47. It is noted that the draft DCO boundary does not include any part of these two PROW, however, the proposed linear construction works in the A47 corridor would indirectly affect these two PROW by creating a temporary severance in the ability to cross from one to the other.</p> <p>The works on the A47 are therefore inseparable from the two PROW, and yet no indication of this is present in the draft DCO. CCC welcomes the ongoing engagement with the Applicant regarding this matter and is seeking to agree amendments to the CTMP and OTMP to ensure the impact on these PROW is suitably mitigated. Further work is required in order for the Council to be satisfied that adequate protective provisions are in place.</p> <p>With respect to NMU access along New Bridge Lane, the Council appreciates that this is an unclassified road rather than a PROW, but the context is that Wisbech and the surrounding fenland area have very poor provision of PROW due to their historic nature, and so local roads can provide important connectivity for NMUs where no other facilities exist. This access therefore needs to be seen within the broader policy framework envisaged by NPPF para 100, the Defra 25 year Environment Plan, the ROWIP and the Joint Health & Wellbeing Integrated Care Strategy, working together. As noted in the Council's response to the Applicant's response to ExAQ1 LV 1.3-1.6, the Council welcomes the proposed measures to improve the environment along New Bridge Lane during the operational phase as set out at 2.17.4, p48 of the Applicant's response, but considers that such measures will not be able to completely mitigate the adverse impact of the development on NMUs and the local community.</p> <p>The Outline Operational Traffic Management Plan (OTMP) [REP1-025] does not address the impact that operational traffic will have on NMUs using New Bridge Lane, post-construction. In particular, the section of New Bridge Lane that is to the east of the former level crossing, would, under the Applicant's design (shown in the Figures section of the Outline CTMP [REP1-011]), result in a narrow rural lane that is quietly trafficked becoming a ~7m wide carriageway with a 2m footway alongside it. All green verges in this section appear to be</p>
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		<p>removed. The physical nature of this part of the road will be transformed and it will be opened to use by HGVs. NMUs will be corralled from a quiet rural road with spacious verges onto a 2m footway running adjacent to an HGV route, with no apparent off-carriageway provision for cycles. Consideration of equestrian users is absent.</p> <p>A signage strategy for NMU traffic is also absent. This is of particular concern in relation to the former level crossing, where it is important that NMUs are not given any impression that the works have diminished their ability to pass and repass. CCC requests that it is consulted on the wording of any signage in this location to ensure that NMUs are not discouraged from using the route. Further to this, rather than relying upon private agreements with Network Rail, it would be preferable if a public permissive agreement for access across the level crossing were reached. This would provide reassurance to the Council and to public users that the ability to use the route has not been diminished. The Council requires involvement in the making of such an agreement. The Council refers to its additional comments regarding the access over the level crossing at 2.4.6 above.</p> <p>Further, the Council notes that there will also be wider visual landscape impacts affecting recreational users of a number of existing PROW and local roads broadly south and west of the development. Therefore, the Council seeks additional mitigation, as set out in its response to the Applicant's response to the ExAQ1 LV 1.3-1.6. There is scope for such mitigation to help meet the problem of insufficient BNG provision through a solution that involves the provision of appropriate habitat which includes public access provision within the vicinity of the development and local community affected. The Outline Landscape and Ecology Management Plan [APP-098] should be amended to reflect the adverse impact on recreational use of PROWs and local communities within the wider landscape, and should propose appropriate mitigation. The Council would welcome engagement with the Applicant to discuss this further.</p>
Noise and Vibration, p.53-58		
NMUs and local communities	General	The Council refers to its comments on the Applicant's response to ExAQ1 LV 1.3-1.6.
Calculations of mitigation outcomes	3.3.5 and 3.4.5	If the Applicant deems it too onerous to provide calculations to demonstrate the effectiveness of mitigation measures to every receptor, the Councils request that justification is provided to demonstrate the chosen locations are representative should a selected location be chosen.

		The Councils would also request that a review of these locations would be required should complaints be received.
Air Quality, p.59-64		
Low Emissions Strategy	4.2.3 and 4.2.4	The Applicant's response states that a Low Emission Strategy is not required because none of the adverse effects would be significant. However, the relevant clause of Policy LP34, Air Quality, is to have " <i>an adverse effect on the air quality factors that led to the affected AQMA being designated</i> " and does not require the adverse effect to be significant. The ambition of any Low Emission Strategy would however need to be proportionate to the scale of the impacts.
Local Air Quality Monitoring Strategy	4.4.3	Noted – the Councils will continue to work with the Applicant to agree the Local Air Quality Monitoring Strategy as it develops.
Odour mitigation	4.4.6	The additional mitigation that would be required during any periods of abnormal operations, identified by CCC as not listed in the " <i>environmental measures to be implemented in the ES</i> ", refers to either carbon filters or biofilters to address potential odour issues when it is not possible to extract air via the combustion stack. This is not addressed in the Applicant's response.
Biodiversity, p.98-122		
Construction Phase Impacts – Negative: Priority habitat – Open Mosaic Habitat	7.3.5	<p>The Councils disagree. At the meeting with the Host Authorities on 16/11/2022, the Applicant stated that the habitat did not meet Open Mosaic Habitat and they would submit information to the ExA to address this point, but this has not been achieved.</p> <p>The Councils seek further information to address this point, as set out in the Councils response to Applicant's Comments on the Relevant Representations [REP2-031].</p>
Construction Phase Impacts – Negative: Water Vole	7.3.13	<p>The Applicant's position regarding the absence of water vole from ditch D8 is contrary to the assessment contained in the Environmental Statement [APP-038], where paragraph 11.5.61 states the evidence is inconclusive and that "<i>occasional potential borrows of a size/shape that could be attributed to water vole or brown rat but there was no evidence indicative of use by either species</i>". This is based on the findings of the Water Vole Survey report [APP-083].</p> <p>Unless the Applicant can provide further evidence (additional surveys) to demonstrate water vole are no longer present on D8, the precautionary principle should be used. It must be</p>

		assumed that water vole are present on ditch D8 and adequate mitigation for loss of habitat be implemented.
Climate Change, p.137-157		
Policy context	9.2.1	The Councils disagree with the Applicant's assertion that the Proposed Development has lower GHG emissions relative to the baseline position.
UK Carbon Budgets	9.2.2	When assessing the contribution of any GHG emissions towards the UK's carbon budgets, actual (gross) GHG emissions should be counted, not net emissions relative to an alternative scenario.
EfW GHG	9.2.3	EfW is not always lower GHG than landfill – this depends on the composition of the waste.
Construction phase GHG emissions	9.3.4	The Applicant's response has not addressed the second part of this paragraph, regarding checks, prior to construction, that the final design either matches or improves on the bill of materials used for estimating emissions from construction.
Waste composition	9.4.4 objection 1, and 9.4.6, 9.4.7, 9.4.8, 9.4.9 and 9.4.10	<p>The Councils note that the Applicant acknowledges that the composition of waste is unknown and variable, and that variation in residual waste composition affects the estimation of GHG emissions associated with EfW and LFG processes.</p> <p>The Applicant's response has not addressed the Councils' point in 9.4.8 that the Applicant's sensitivity analysis, by simultaneously reducing both food and plastics by the same percentage, has failed to consider the separate impacts of reducing <i>either</i> the biogenic carbon content <i>or</i> the fossil carbon content.</p> <p>The Council maintains that the degree of uncertainty in this matter is such that the claimed benefits cannot be properly relied on.</p>
Avoided emissions from electricity generation	9.4.4 objection 2, and 9.4.13, 9.4.14, 9.4.15 and 9.4.16	<p>The gradual decarbonisation of the UK electricity grid over time, should have been considered as the core (most likely) case, and not just as a sensitivity analysis.</p> <p>The Applicant's Technical Note (TNCC01) [REP1-036] therefore provides a much more realistic scenario of the GHG emissions than the Applicant's original Environmental Statement. This Technical Note shows a difference of only 414 ktCO₂e over the 40-year lifetime, and a benefit nearly ten times smaller than originally claimed. This equates to an average of only 10 ktCO₂e per year. This very small difference is far less than the value of</p>

		the uncertainty in emissions due to variable waste composition. In the opinion of the Councils, the benefit claimed by the Applicant therefore cannot be relied on.
Baseline 'without development' scenario	9.4.4 objection 3, and 9.4.17 and 9.4.18	<p>The Applicant's response does not change the fact that one cannot be certain what would happen to the waste if the development did not proceed, for the entire 40 years lifetime.</p> <p>The Applicant's response acknowledges that variation in waste composition affects GHG emissions, but has not acknowledged that there are also other factors that could change the GHG emissions from the alternative landfill scenario – such as the proportion of gas captured and flared.</p>
Carbon capture and storage (CCS)	9.4.4 objection 4, and 9.4.19 and 9.4.20 and 9.4.24.	The Councils maintain that the Proposed Development will lead to a very large quantity of GHG emissions released to the atmosphere, irrespective of what might happen without the development, and that the only way that a EfW plant could be compatible with net zero emissions is to install and operate CCS from day one of operation.
Significance of GHG emissions	9.4.22 and 9.4.23	<p>The Councils strongly disagree with the Applicant's assertion from their Environmental Statement Chapter 14 [APP-041] that the Proposed Development would result in a net decrease in GHG emissions of 2,571 kt CO₂e over its lifetime. As discussed above in response to comments on avoided emissions to electricity generation, and acknowledged by the Applicant in their Technical Note [REP1-036], the difference between the two scenarios is much more likely to be nearer to the much smaller 414 kt CO₂e over the 40 years.</p> <p>In any case, the total GHG emissions is highly uncertain, but likely to be very large, estimated by the Applicant to be around 11 million tonnes CO₂e in total. This cannot be regarded as beneficial.</p>
Health, p.162-167		
Operating Hours	11.3.7	The Applicant's response has not addressed the question - " <i>What are the health impacts of operating 07.00-20.00?</i> ". The response given focuses on receiving waste outside normal operating hours, whereas the gap identified in the Health Impact Assessment [APP-043] is to consider health impacts <i>within</i> normal operating hours.
Waste Policy Matters, p.170-186		
Policy Context	13.2.1	The Councils disagree with the Applicant's statement that CPMWLP Policy 19, restoration, and aftercare is not relevant to the Proposed Development. As set out in the Policy, it is relevant to time-limited waste management proposes. The Councils note that the Applicant

		stated at ISH2 that a draft outline decommissioning plan, which indicates that there is an intention that at the end of the life of the facility it will be safely decommissioned. CPMWLP Policy 19 is the relevant policy to determine if the proposed decommissioning meets local policy.
Operational Phase Impacts	13.4.3 (Para 1)	The Applicant's response misinterprets how capacity was calculated for the CPMWLP (Policy 3) and tries to imply that there are 330,000 tonnes of available residual waste; which as set out in Table 4.4 of the Waste Fuel Availability Assessment (WFAA) [REP2-010] has for all of Cambridgeshire been assessed to be in the region of 220,000 tonnes. The Waterbeach Waste Management Park is controlled under several waste management permits, one for each of the different activities undertaken, as such, the management at the different levels of the waste hierarchy are separately recorded. Any suitable material arising from the Waterbeach processes is already identified within the Table 4.4 of the WFAA.
Operational Phase Impacts	13.4.3 (Para 2)	As per previous comments, the PGEL consent is, beyond the requirements set out in the Order, not technology-specific; and those requirements do not specify it must use Advanced Combustion Technology.
Operational Phase Impacts	13.4.3 (Para 3)	The Applicant has only identified 220,000 tonnes of available fuel from the Cambridgeshire and Peterborough Areas in the WFAA. By sourcing waste from further afield, it will undermine any proposals in those areas for more localised recovery facilities, as the waste will not be available.
Operational Phase Impacts	13.4.3 (Para 4)	<p>The available data only provides a picture of events of what has happened, and cannot be assumed, without additional information, to reflect future trends. In the case of Hertfordshire there has in recent years been a dispute between CCC and the operator appointed to manage Hertfordshire's municipal waste. It is the Councils' understanding that this dispute has been resolved and that there will be a change in the pattern of waste movements in that area soon. The tonnage identified as being available from Hertfordshire in Table 4.4 of the WFAA is 209,000 tonnes.</p> <p>The tonnage identified as being potentially available from Norfolk in Table 4.4 of the WFAA is 40,000 tonnes. If all this material, which is unlikely, was to be managed at the facility it would account for less than 7% of the facilities required fuel.</p>
Operational Phase Impacts	13.4.6	See the Council's response to 13.4.3 (Para 2) above.

		Owing to the way PGEL consent was granted, significant changes can be made to the permission through applications to vary the conditions of the permission without the requirement for a new planning application.
Operational Phase Impacts	13.4.8	<p>The response does not address a scenario where there may be insufficient residual fuel for the facility, either because there is a lack of waste, or because the facility cannot commercially source the waste.</p> <p>Given that this facility is being promoted as a power plant fuelled by waste, the minimum amount of waste to produce a steady supply of energy is an important consideration to ensure that the facility can deliver the level of power that makes the facility a Nationally Significant Infrastructure Project.</p>
Operational Phase Impacts	13.4.11	See the Councils' response to 13.4.3 (Para 1) above. The 330,000 figure does not appear in the WFAA (v1 or v2). The figure cited in Table 4.4 for Cambridgeshire is 220,090.
Operational Phase Impacts	13.4.14	In the WFAA v1 the figures for Essex did not include Southend on Sea and Thurrock. They are included in WFAA v2.
Operational Phase Impacts	13.4.19	This facility is being promoted as a Nationally Significant Infrastructure Project for renewable energy. The need from the facility derives from ensuring that there is adequate fuel for the facility. Any benefit in terms of waste management capacity should be considered a benefit of the development, but not a justification for its existence. If it were to be promoted as a waste management facility, it should be promoted as such through the regular planning process.
Operational Phase Impacts	13.4.20	<p>To address the topic of the proximity principle, prior to the ISH2 hearing on 11 April 2023, the Council proposed a requirement by email to the Applicant. The wording of the proposed requirement is below. Please note, this is a suggested draft prepared by the Council for the Applicant's consideration, and it may be subject to further discussions and modification. The ExA will be informed of any progress in relation to this matter.</p> <p><i>Suggested approach to Schedule 2 - Additional Requirement Requested (Priority for the management of local waste and wider catchment restriction)</i></p> <p><i>At least 20% of the waste imported to the facility shall be originate from within a 75km radius of the facility as the crow flies. The origin of this waste must be within this area. Waste</i></p>

		<p><i>received at a transfer station from outside this area before being sent to the facility, is not conserved to have originated this area.</i></p> <p><i>Not less than 90% of the waste imported to the Facility per annum shall originate from a catchment area which shall comprise of Cambridgeshire, Peterborough, Milton Keynes, Leicestershire, Essex, Central Bedford, North Northamptonshire, West Northamptonshire, Luton, Norfolk, Rutland, Leicester City, Bedford, Lincolnshire, Hertfordshire and Suffolk. For the avoidance of doubt, waste being processed through any waste transfer station within the defined catchment area shall be regarded as arising from within the catchment area.</i></p> <p><i>Waste received from any one Waste Planning Authority area in any given year shall not exceed 50% of the overall capacity of the facility.</i></p> <p><i>After Service Commencement, the operator shall maintain a written record at the site of the quantities and origin of the waste treated by the Facility and on written request of the Waste Planning Authority provide an annual report for the preceding 12 months within 10 Working Days of the written request of such from the Waste Planning Authority. The report shall as a minimum identify:</i></p> <p><i>a) The Facility throughput – the total tonnage of waste processed;</i></p> <p><i>b) Waste catchment - the point of origin of the waste, including tonnages received from the catchment area and from the rest of the UK;</i></p> <p><i>c) Residual site based waste arisings – total tonnage of residual waste produced and thermally treated at the facility.</i></p>
Decommissioning Phase Impacts	13.5.4	See the Council's response to 13.2.1 above.
Decommissioning Phase Impacts	13.5.6	The proposal for an Outline Decommissioning Environmental Management Plan is noted and welcomed.
Conclusion, p.189-191		

10.6 Applicant's Response to Deadline 1 Submission (Rev 1.0) [REP2-023]

Topic	Paragraph Number	Councils' Comment

10.7 Carbon Capture and Export Readiness Reserve Space Plan [REP2-024]

Topic	Paragraph Number	Councils' Comment
CCS Readiness Plan	n/a	The Councils would find it helpful to understand the Applicant's process and reasoning for determining the size of the area required to be reserved for future CCS.

10.8 Applicant's Response to the Host Authorities Summary of Relevant Representations (Rev 1.0) [REP2-025]

Topic	Paragraph Number	Councils' Comment

Figure 3.14 Outline Landscape and Ecology Strategy [REP2-026]

Topic	Paragraph Number	Councils' Comment
Outline Landscape and Ecology Strategy – revision 2	Figure 3.14	The Councils welcome the inclusion of the "Area omitted from biodiversity gain and reserved for potential rail embankment" within Figure 3.14.

Cambridgeshire County Council and Peterborough City Council

Waste Needs Assessment

**Cambridgeshire and Peterborough Minerals and
Waste Local Plan (2016 to 2036)**

Proposed Submission Document

November 2019



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Executive summary

Jointly, Cambridgeshire and Peterborough currently (2017) produce around 2.782 million tonnes per annum (Mtpa) of various types of waste, this includes: 0.415 million tonnes (Mt) of municipal waste (15%); 0.674Mt of commercial and industrial (C&I) waste (24%); 1.649Mt of construction, demolition and excavation (CD&E) waste (59%); and 0.044Mt of hazardous waste (2%). In general, three quarters of waste can be attributed to Cambridgeshire with a quarter to Peterborough. Forecasts indicate that waste arisings could increase to 3.163Mtpa by the end of the plan period (2036).

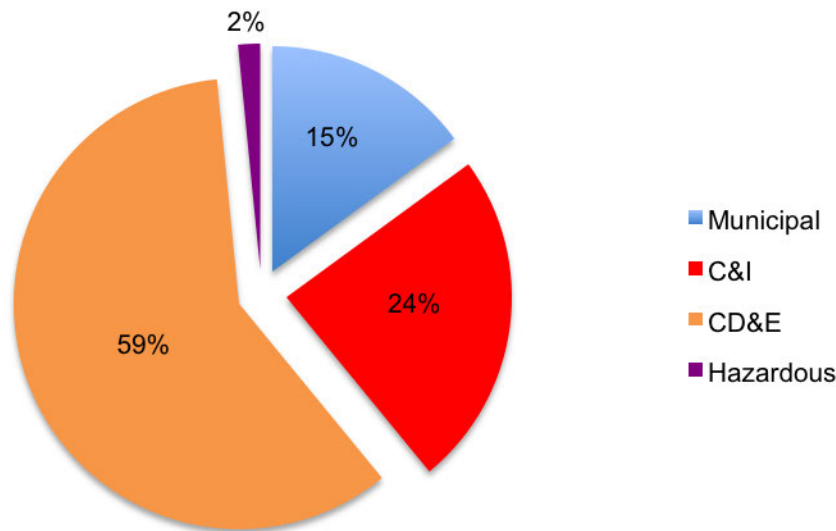


Figure ES1: Waste arisings for Cambridgeshire and Peterborough 2017

The majority of waste produced in Cambridgeshire and Peterborough is currently (2017) managed via the following broad methods: processing of waste in preparation for reuse or recycling accounts for around a third, inert recovery accounts for another third, other recovery and treatment accounts for a tenth and disposal to landfill accounts for another third (including inert disposal which makes up a tenth). Of this around half a million tonnes was exported¹ to surrounding authorities where the majority was received at facilities for processing in preparation for recycling and reuse (including composting and inert recycling) and the remainder was otherwise treated or disposed of to non-hazardous and inert landfill (each accounting for less than a tenth).

¹ Total waste arisings = waste received to facilities within the Plan area (i.e. arising from the Plan area and managed within the Plan area) + waste removed from the Plan area (i.e. arising from the Plan area and exported to other WPA's for management).

A significant amount (almost four times that exported) of waste is also imported into the Plan area with over half of waste imported from other authorities disposed of to non-hazardous and inert landfill. Overall the Plan area is a major net importer of waste. Such arrangements are subject to commercial contracts however with other authorities also seeking to increase their waste management capacity movements are expected to reduce in the future, although some movements will still occur.

Cambridgeshire and Peterborough do not produce low-level radioactive waste (LLW) from the nuclear industry. A very small amount of LLW is produced from the non-nuclear industry from Cambridgeshire; no LLW from the non-nuclear industry was recorded for Peterborough. In addition agricultural waste and waste water are also produced.

Waste arisings forecasts up to the end of the plan period (2036) and management methods (incorporating relevant targets) are summarised in Table ES1. Note that the non-hazardous landfill and non-hazardous (stable non-reactive hazardous waste, SNRHW) landfill figures include estimates for London's municipal and C&I non-apportioned waste for disposal indicated in brackets.

In addition some residual waste will be produced as an output from waste treatment processes. This means that some disposal to landfill, albeit the least preferred option, will continue to be necessary where such residues cannot be reused or recycled.

Table ES1: Waste arisings and management methods up to 2036 (million tonnes)

		2017	Forecast arising's and management methods			
			2021	2026	2031	2036
Total waste arisings		2.782	2.875	2.982	3.071	3.163
Cambridgeshire		2.224	2.187	2.270	2.339	2.412
Peterborough		0.558	0.688	0.712	0.732	0.751
Preparing for reuse and recycling	Materials recycling	0.662	0.696	0.754	0.806	0.852
	Inert recycling	0.087	0.066	0.067	0.068	0.068
	Compost	0.199	0.207	0.225	0.240	0.249
	Hazardous recycling	0.028	0.028	0.030	0.033	0.036
Other recovery	Treatment and other forms of recovery	0.160	0.226	0.314	0.393	0.416
	Energy from Waste (CD&E - wood waste)	0.001	0.002	0.002	0.002	0.002
	Soil treatment	0.112	0.095	0.097	0.099	0.099
	Inert recovery	0.728	0.769	0.774	0.776	0.776
	Hazardous treatment	0.008	0.009	0.010	0.011	0.012
Disposal	Sub-total Non-hazardous landfill - including SNRHW (London's municipal and C&I non-apportioned waste for disposal to landfill)	0.537 (0.066)	0.602 (0.040)	0.532 (0)	0.467 (0)	0.476 (0)
	<i>Non-hazardous landfill (London's municipal and C&I non-apportioned waste for disposal to landfill)</i>	<i>0.508 (0.063)</i>	<i>0.580 (0.038)</i>	<i>0.514 (0)</i>	<i>0.453 (0)</i>	<i>0.461 (0)</i>
	<i>Non-hazardous (SNRHW) landfill (London's municipal and C&I non-apportioned waste for disposal to landfill)</i>	<i>0.028 (0.003)</i>	<i>0.021 (0.002)</i>	<i>0.017 (0.000)</i>	<i>0.014 (0.000)</i>	<i>0.015 (0.000)</i>
	Inert landfill	0.262	0.176	0.175	0.174	0.174
	Hazardous disposal to landfill	0.005	0.007	0.008	0.009	0.010
	Hazardous disposal - incineration with no energy recovery	0.003	0.003	0.004	0.004	0.004

Currently there is sufficient waste management capacity within Cambridgeshire and Peterborough (jointly) with regards to net self-sufficiency² for: composting, inert recycling and soil treatment throughout the plan period; and preparing for re-use & recycling and treatment & other forms of recovery mid-way through the plan period. Recently permitted sites that are not yet operational (but where implementation is considered likely) will take up the required capacity for treatment & other forms of recovery resulting in a surplus; these sites are anticipated to be operational within the first half of the plan period. There may be a capacity gap of around 0.120Mtpa by the end of the plan period for materials recycling however this would be dependent on the actual recycling capacity provided by sites undertaking transfer/treatment (estimated at 25% but potentially more, reducing the capacity gap). Sites where implementation is considered uncertain have not been included for the purpose of determining future needs.

Although there is a short-fall in inert recovery and landfill this additional capacity is able to be accommodated by void space associated with restoration of mineral extraction sites, both with extant permission and additional future capacity created by mineral extraction over the plan period. It is therefore assumed that there will be a continued need for inert fill to be directed towards mineral extraction sites to support restoration works throughout the plan period. No new inert landfill or recovery sites (not associated with restoration of mineral extraction sites) are required over the plan period.

There is sufficient permitted non-hazardous (including SNRHW) landfill void space to accommodate the Plan areas disposal needs and (some of) London's non-apportioned household and C&I waste to be exported for disposal. However the ability of the Plan area to accommodate any on-going need regarding disposal of residues, let alone any wider needs, is uncertain. Monitoring of disposal, including disposal of residues, to non-hazardous (including SNRHW) landfill and remaining void space will be necessary to ensure that wastes are managed and any necessary capacity planned for appropriately.

There is also a potential need for hazardous waste recycling and disposal capacity. However, such waste tends to be managed at a regional to national scale and are generated in significantly lower quantities. As such it is not possible for every WPA to achieve self-sufficiency with respect to hazardous wastes.

² Net self-sufficiency is taken to mean where the existing waste management capacity within the Plan area is equivalent to the total waste arisings. It should be noted that cross-boundary movements will continue to occur, albeit on a reduced scale as other WPAs increase their waste management capacity, and that this is due to economies of scale and other market drivers, which means that it is not possible for every WPA to provide the full suite of facilities required to managed on-going needs.

Waste planning context

National and European policy

1. The National Planning Policy Framework (NPPF) was published February 2019 and although it does not specifically address waste matters, it does influence waste planning and related matters. Detailed waste planning policies are set out in the National Planning Policy for Waste (NPPW), published in October 2014. The NPPW is to be read in conjunction with the NPPF, the National Waste Management Plan for England and National Policy Statements (NPS) for wastewater and hazardous waste. In addition Our Waste, Our Resources: A Strategy For England was published in December 2018 and sets out the national strategy for continuing to make step-changes towards achieving sustainable waste management by preserving material resources through the minimisation of waste, promoting resource efficiency and moving towards a circular economy.
2. In relation to the preparation of plans the NPPW requires Waste Planning Authorities (WPAs) to ensure that the planned provision of new capacity and its spatial distribution is based on robust analysis of best available data and information, and an appraisal of options. Spurious precision should be avoided. In addition Local Plans should identify sufficient opportunities to meet the identified needs of their area for the management of waste streams and in doing so:
 - drive waste management up the waste hierarchy;
 - recognise the need for a mix of types and scale of facilities, and that adequate provision must be made for waste disposal (including for residues from treated wastes);
 - identify tonnages and percentages of waste requiring different types of management over the plan period;
 - consider the extent to which existing operational facilities would satisfy any identified need;
 - consider wider waste management needs; and
 - work collaboratively (with other WPA's through the Duty to Cooperate) to provide a suitable network of facilities to deliver sustainable waste management.
3. Local Plans, should also identify sites and/or areas for waste management facilities and in doing so:
 - identify the broad type(s) of facility that would be appropriate;
 - take account of the proximity principle (particularly regarding disposal and the recovery of municipal waste) and recognise the role of catchment areas in securing economic viability;
 - consider opportunities for on-site waste management;

- consider a broad range of locations including industrial sites, and consider opportunities to co-locate waste management facilities together and with complementary activities; and
 - give priority to the re-use of previously-developed land, sites identified for employment uses, and redundant agricultural and forestry buildings and their curtilages.
4. The NPPW also sets out criteria against which the identification of sites/areas for waste management facilities should be assessed.
 5. In relation to the wider policy context the Waste Framework Directive (WFD) (2008/98/EC) sets out the concept of the waste hierarchy (prevention, preparation for re-use, recycling, other recovery e.g. energy recovery and disposal), proximity principle and self-sufficiency. It also requires that waste is recovered or disposed of without endangering human health or causing harm to the environment. Article 28 of the WFD, concerning Waste Management Plans, requires an assessment of how the current waste management (including treatment and disposal) capacities will shift over time in response to the closure of existing waste management facilities and the need for additional waste installation infrastructure.
 6. The UK Waste Regulations 2011 transposes the WFD to UK law.
 7. The Landfill Directive (99/31/EEC) aims to prevent or reduce as far as possible negative effects on the environment from the landfilling of waste, and setting targets for the reduction of biodegradable municipal waste going to landfill.

Cambridgeshire and Peterborough Minerals and Waste Local Plan

8. Cambridgeshire County Council and Peterborough City Council are the WPAs for the administrative areas of Cambridgeshire and Peterborough City (respectively)³. The Cambridgeshire and Peterborough Minerals and Waste Development Plan (MWDP) Core Strategy Development Plan Document (DPD) and Site Specific Proposals DPD were adopted in July 2011 and February 2012 (respectively). The NPPF requires Local Plans to be kept up-to-date, the National Planning Policy Guidance (NPPG) states that most Local Plans are likely to require updating in whole or in part at least every five years. As such, in line with national policy and guidance, a review of the adopted MWDP is underway, with the emerging Minerals and Waste Local Plan (MWLP) to replace the Core Strategy and Site Specific Proposals DPDs.
9. The waste arisings and future capacity needs identified through the adopted MWDP were based on the best available data, policy requirements and targets relevant at the time (2006). Rolling the adopted MWDP waste

³ Herein referred to as the Plan area.

forecasts forward would be unlikely to be found sound as these do not capture recently released data and other information, may not comply with current policy requirements (including targets) and do not reflect changes in local circumstance and emerging trends.

10. The emerging MWLP has a proposed plan period of 2016 to 2036 and requires an updated evidence base to inform and support the plan-making process; this includes a Waste Needs Assessment (WNA). Other elements of the adopted MWDP and associated evidence base documents are also being updated to reflect local circumstance, emerging trends and more closely align with the NPPF and NPPW (published after the MWDP was adopted).
11. WPAs should plan for the sustainable management of waste produced within their administrative area including: municipal waste (also referred to as Local Authority Collected Waste, LACW); commercial and industrial (C&I) waste; construction, demolition and excavation (CD&E) waste; hazardous waste; radioactive wastes; agricultural waste; and waste water.
12. Furthermore, the East of England Waste Technical Advisory Body (EoE WTAB) have a Memorandum of Understanding March 2019 (MoU) in place that recognises that “there will be a degree of cross-boundary movement of waste. In light of this the WPAs [within the EoE] will plan on the basis of net self-sufficiency which assumes that within each Waste Local Plan area the Planning Authority or Authorities will plan for the management of an amount of waste which is equivalent to the amount arising in that Waste Local Plan area. All the WPAs accept that when using this principle to test policy, it is unlikely to be possible to meet this requirement in full, particularly for hazardous and other specialist waste streams.” (EoE WTAB MoU, paragraph 7.1).

Waste Needs Assessment

13. The purpose of the WNA is to inform the plan-making process by:
 - providing an up-to-date picture for Cambridgeshire and Peterborough of - the amount of waste currently generated (arisings), the amount of waste anticipated to arise over the plan period and existing waste management capacity;
 - identifying Cambridgeshire and Peterborough’s future management needs (and the extent to which existing capacity satisfy identified future needs) and identify the broad type(s) of facility(ies) that may be required to manage waste appropriately and facilitate delivery of net self-sufficiency;
 - giving consideration to wider waste management needs – specifically London’s non-apportioned household and C&I waste arising to be exported to other WPAs for non-hazardous disposal (landfill); and

- identifying and discussing strategic waste movements and any potential Duty-to-Cooperate matters that should be addressed throughout plan-preparation.
14. This WNA examines waste arisings for the major waste streams of municipal, C&I and CD&E wastes as well as hazardous and radioactive waste. Consideration will also be given to agricultural waste and waste water. Although the plan period starts at 2016, in order to ensure the most up to date data was incorporated into the plan-making process, the common baseline used for all waste streams is 2017. It should be noted that where data for 2017 is not available the most recent data was used (particularly in the case of radioactive and agricultural waste), and where possible extrapolated forward to provide an estimate of arising's as at 2017.
 15. The format and broad matters addressed through this report are outlined below:
 - Current waste arisings – Identifies current waste arisings for waste streams, including methodology and data sources.
 - Forecasting waste arisings over the plan period – Identifies waste forecasts for waste streams by management method over the plan period incorporating relevant targets, including methodology and data sources.
 - Waste movements – Identifies waste movements into and out of the Plan area as well as those considered strategic in nature and the identification of any DtC matters or matters to be taken into consideration through the plan-making process. Consideration of wider waste management needs, in particular London's non-apportioned household and C&I waste arising to be exported to other WPAs for non-hazardous disposal (landfill). Methodology and data sources used will also be identified.
 - Waste management capacity – Identifies the existing waste management capacity and the capacity required to manage waste appropriately to achieve relevant targets and deliver net self-sufficiency (including future needs). Methodology and data sources used will also be identified.
 - Conclusion – Overview of the assessment outcomes and summary tables for waste arisings, forecasts and capacity needs.
 16. Cambridgeshire and Peterborough are located within the EoE region and are active members of the existing regional WTAB. An assessment of arisings in the other WPA areas in the EoE region has been undertaken, and is presented, in the Suffolk Waste Study (September 2017) – there is no need to reiterate this information in this report however it forms a useful reference point in relation to the wider EoE context.

Methodology and data sources

17. The NPPG sets out guidance regarding how WPAs should identify the need for new waste management facilities, assessing existing waste management capacity, forecasting waste arisings over the plan period, data sources and monitoring and planning for London's waste (refer NPPG, Waste, paragraphs 022 to 044 www.gov.uk/guidance/waste).
18. The EoE have an agreed outline methodology, the EoE WTAB Waste Arisings Methodology Paper (Draft – February 2017), for determining waste arisings and forecasts and consultation thresholds for DtC matters (available on the Councils website).
19. Detail regarding the methodology applied to this study, how the EoE WTAB methodology has been taken into account, and data sources for each waste stream is set out under relevant sections of this report.
20. This WNA reports data in million tonnes (Mt), rounded to the nearest 1,000 tonnes to avoid spurious precision. For this reason there may be some minor discrepancies where figures in text and tables of the report are totalled (i.e. numbers may not add exactly to totals shown or to 100%).
21. Periods for data reported through this WNA are based on calendar years.

Current waste arisings

Municipal waste

22. Municipal waste is also referred to as Local Authority Collected Waste (LACW), and generally consists of household waste and any other wastes collected from Household Recycling Centres (HRCs)⁴, commercial or industrial premises, and waste resulting from the clearance of fly-tipped materials and litter. Household waste makes up the majority of municipal waste, for Cambridgeshire and Peterborough household waste accounts for 93% of municipal waste.
23. Data for municipal waste is collected and reported by waste collection and disposal authorities (being the District Councils as well as Peterborough City Council as a unitary authority and Cambridgeshire County Council). This data is collated nationally through the Waste Data Flow database, maintained by the Department for Environment, Food and Rural Affairs (Defra). Defra also publish this information through the data.gov.uk website,

⁴ Also referred to as civic amenity sites.

refer to Local Authority Collected Waste Management Statistics⁵. Data for this waste stream is up-to-date and accurate.

24. Data for municipal waste is reported for financial years, whereas data reported through industry returns and surveys for other waste streams are generally for calendar years. For the purpose of the plan-making process the data will be taken to be on calendar year basis, that is data for the year 2017/18 will be taken as 2017; doing so will not significantly alter the results as three-quarters of the 2017/18 dataset is captured in 2017.
25. This method accords with the EoE WTAB methodology.
26. The municipal datasets provides detail at the individual authority level, indicating that the percentage split (of waste arisings) for Cambridgeshire and Peterborough is 79% and 21% respectively; these figures have been applied to determine arisings for individual authority areas and management needs for the purpose of the WNA over the plan period.
27. Municipal waste generated within Cambridgeshire and Peterborough and current management methods are summarised in the table below.

Table 1: Municipal waste arisings and management, 2017 (million tonnes)

Total municipal waste		0.415
Cambridgeshire		0.329
Peterborough		0.087
Preparation for reuse and recycling	Materials recycling	0.121 (29%)
	Composting	0.100 (24%)
Treatment and other forms of recovery		0.080 (19%)
Disposal to non-hazardous landfill (including SNRHW <0.1%)		0.114 (27%)
Disposal via incineration without energy recovery		0.001 (<1%)

28. Management of municipal waste is undertaken through various commercial contracts with the main forms of treatment including anaerobic digestion (AD), thermal treatment (referred to as an energy recovery facility, ERF) and mechanical biological treatment. In addition a very small amount of waste (clinical) is disposed of through incineration without energy recovery.
29. A very small amount of municipal waste (asbestos) was disposed of at non-hazardous (SNRHW) landfill (the three year average for 2015 to 2017 was less than 0.1%), as such all waste disposed of has been captured as non-hazardous landfill (including SNRHW).

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

30. Management methods were derived from the Defra Local Authority Collected Waste Management Statistics, Waste Data Flow database and council records.

Commercial and industrial waste

31. C&I waste is defined as “waste from premises used mainly for trade, business, sport, recreation or entertainment” (Environmental Protection Act 1990 s5.75(7)). It will generally consist of a wide range of wastes (such as mixed wastes, mineral wastes, chemical wastes, metals, discarded equipment, animal and vegetable waste including food waste, healthcare waste and others) and contains a high proportion of recyclable materials.

Waste Data Interrogator

32. Waste collected from businesses is subject to commercial contracts, and although waste collection companies collect data for their own operational purposes, this information is not available to WPAs. Waste operator returns are submitted to the Environment Agency (EA) through the Duty of Care system with the information collated through the Waste Data Interrogator (WDI) database, maintained by the EA.
33. C&I waste is grouped with municipal waste and reported jointly as “household, industrial and commercial (HIC) waste” through the WDI. There is also potential for overestimation where waste is handled at intermediate facilities such as transfer stations. As such it is necessary to cleanse data extracted from the database.
34. HIC data originating from Cambridgeshire and Peterborough (both received at facilities within Cambridgeshire and Peterborough and removed from Cambridgeshire and Peterborough) was extracted from the WDI reporting on 2017 industry returns (referred to as the WDI 2017). Each consignment includes a descriptor of the type of waste using the European Waste Code (EWC), these codes were used to filter the returns from the WDI to identify C&I waste. The following waste types were removed from the dataset for Cambridgeshire and Peterborough: Chapter 02 and 19 sludges - including those from treatment of urban waste water (this is accounted for through waste water studies and is treated as sludge treatment centres operated by Anglian Water), industrial waste water, landfill leachate and on-site effluent treatment; Chapter 01 and 19 CD&E waste – including those from mining and quarrying and treatment of minerals, and inert waste residues such as from soil remediation (these wastes are accounted for under CD&E waste stream); and Chapter 20 municipal waste.
35. Waste consignments entered into the WDI also include information on the type of facility type and site waste operation permits. Waste management methods can be determined by filtering WDI returns by facility type and permit type.

36. Waste recorded through intermediate facilities (including clinical, non-hazardous and hazardous waste transfer stations) was removed from the dataset. The reasoning for removing this component is that waste recorded at intermediate facilities is then transferred onto another facility for further processing and/or treatment (and is then captured again under this facility), where waste is transferred outside of Cambridgeshire and Peterborough it is reasoned that this waste should be captured under the field “removed/originating from” when received at the processing/treatment facility. Waste recorded through intermediate facilities identified as transfer/treatment in the WDI, as the facility involves some form of preparation for re-use and/or recycling, has been captured under materials recycling at a rate of 25% of the recorded consignment.
37. Rates for non-hazardous and non-hazardous (SNRHW) landfill were determined by identifying the amount of waste recorded as being disposed of at facilities identified (by permit type) as non-hazardous and non-hazardous (SNRHW) landfill. An anomaly was identified within the WDI dataset resulting in incorrect classification of the Dogsthorpe and Eye North Eastern landfill sites. Waste recorded as being received at these sites has been attributed to the correct facility type.
38. It is important to acknowledge that the WDI database may contain errors due to data entry and particularly in relation to omissions in information fields on the returns, including origin and destination (resulting in some waste recorded as “not codeable”).
39. The WDI 2017 returns indicate arisings (“as managed”)⁶ of 0.644Mt for 2017 from Cambridgeshire and Peterborough.

[Defra 2009 Commercial and industrial waste survey](#)

40. As per the EoE WTAB methodology, the results of the Defra 2009 Commercial and industrial waste survey were also utilised in determining current arisings. The Defra 2009 report estimates arisings for England of 47.928Mt, of which hazardous wastes account for 7%, leaving 44.573Mt. The EoE region is reported to account for 4.507Mt or around 9% of England’s arisings (refer Defra 2009, Table ES 3 and Table 23). Data from the Office for National Statistics (NOMIS 2009 to 2017) was used to identify the count and percentage of commercial and industrial sector business’ and business employee count present within the Plan area and the proportion that this represented (of the EoE region and England), this allowed for identification of arisings by both a percentage based on business sector representation (based on employee count 15.4% for 2009) and by waste type and broad business sectors.

⁶ Total arisings as managed (from the WDI) are derived by adding together the waste received to facilities within the Plan area (arising from the Plan area), and the waste removed from the Plan area (to other WPA’s). Results can then be filtered or cleansed as appropriate.

41. The Defra report was based on 2009 data, in order to compare this to current arisings as managed, historic economic growth factors for both individual business sector GVA and total GVA (obtained from the Cambridge Econometrics (CE) East of England Forecasting Model 2016 baseline results updated August 2016) were applied to the 2009 data to extrapolate the data forward and identify estimated arisings for 2017. It should be noted that the Defra 2009 dataset was not intended to be drilled down to Plan area levels and so results derived using this method are acknowledged to represent an estimate only. **This produced results ranging from 0.755 – 0.814Mt for 2017** (the variance results from the growth profile applied and if the local estimates were derived from the data for England or regions).

Defra 2019 UK Statistics on Waste

42. The UK Statistics on Waste was released in March 2019 (published by Defra), this included updated estimates for C&I waste for 2010 to 2017. The updated C&I estimate are derived from application of the revised 'reconcile' methodology to calculate C&I waste generated in England. The methodology revisions note sets out how the method was revised, refer Defra 2018 C&I waste arising's methodology revisions for England. It should be noted that the Defra 2019 report clearly acknowledges that 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 municipal waste.
43. The latest estimates for C&I waste arisings indicate that a total of 37.9Mt was produced England in 2017 (Defra 2019). Local estimates were produced by applying the Plan areas percentage employee count (1.7% of England, NOMIS) for 2017 resulting in a figure of 0.658Mt. The dataset accompanying the Defra 2019 UK Statistics on Waste splits total generation of waste for England by NACE⁷ economic activities and EWC, in addition it can be filtered based on hazardous and non-hazardous waste (Defra 2019, Table 5.1). The total C&I generation figure significantly reduces when hazardous, CD&E and household wastes are removed; it is assumed that these would be captured under the relevant waste streams. It should be noted that this dataset applies to 2016 waste generation, not 2017. Applying the same split based on the Plan areas percentage employee count for 2016 results in a figure of 0.365Mt.
44. In order to compare this to current arisings as managed the total GVA (CE 2016) growth profile was applied to extrapolate the data forward and identify estimated arisings for 2017. It should be noted that the Defra 2019 dataset was not intended to be drilled down to Plan area levels and so results

⁷ The Statistical classification of economic activities in the European Community, abbreviated as NACE (Nomenclature statistique des activités économiques dans la Communauté européenne).

derived using this method are acknowledged to represent an estimate only. **This produced results ranging from <0.372 and 0.658Mt for 2017.**

Identifying a local estimate

45. Estimated waste arisings derived from the WDI 2017, Defra 2009 and Defra 2019 datasets were compared for the purpose of sensitivity testing. Arising's for 2017 ranged between 0.372Mt and 0.814Mt. In line with avoiding spurious accuracy and to reflect that WDI data is "as managed" (and as such may form a minimum) and that the Defra national arising estimates are not designed to be drilled-down to Plan area levels (and so may not be an accurate local representation) **the average of the estimates has been taken as the current arisings estimate to inform the plan making process, producing figure of 0.674Mt for 2017.**
46. This method accords with the EoE WTAB methodology.
47. The NOMIS database also provides detail at the individual authority level, indicating that the percentage of the total employee count for Cambridgeshire and Peterborough is consistently around 74% and 26% respectively. The WDI dataset indicates a split with regards to origin of total as managed arisings of around 81% and 19% respectively (based on a three-year average, 2015 to 2017). **For the purpose of the WNA the average figures 77% for Cambridgeshire and 23% for Peterborough have been applied to determine arisings for individual authority areas and management needs over the plan period.**
48. C&I waste generated within Cambridgeshire and Peterborough and management methods are summarised in the table below.

Table 2: C&I waste arisings and management, 2017 (million tonnes)

Total C&I waste		0.674
Cambridgeshire		0.519
Peterborough		0.155
Preparation for reuse and recycling	Materials recycling	0.364 (54%)
	Composting	0.061 (9%)
Treatment and other forms of recovery (includes soil treatment 2%)		0.094 (14%)
Disposal to non-hazardous landfill (including SNRHW)		0.155 (23%)
<i>Non-hazardous landfill</i>		<i>0.148</i>
<i>Non-hazardous (SNRHW) landfill</i>		<i>0.007</i>

49. Management methods (including that for non-hazardous and non-hazardous (SNRHW) landfill) were derived from the three-year average of the WDI 2015 to 2017 management rates. Although there was some fluctuation in management method rates over the three-year period the average is likely to indicate emerging trends and best reflect local circumstance and trends.

Rates for management methods have been applied and increased incrementally to achieve targets as relevant.

Construction, demolition and excavation waste

50. CD&E waste means waste materials that arise from the construction or demolition of buildings and/or civil engineering infrastructure, including hard construction and demolition waste and excavation waste (and soils). Hard construction and demolition waste may include concrete, bricks, tiles, bituminous mixtures and railway ballast and mixtures of the various components. Excavation waste may include clean and contaminated soil, stone and rocks arising from land levelling, filling and/or general foundations. The majority of this type of waste is made from inert materials such as concrete, rubble and soils. A small amount of CD&E waste is non-inert materials such as wood, metals and plastic that can be managed via non-hazardous waste treatment facilities. CD&E waste may also include hazardous waste materials such as lead, asbestos, liquid paints, oils, etc. CD&E waste contains a high proportion of recyclable materials.

Waste Data Interrogator

51. CD&E waste “as managed” is also reported through the WDI; data on CD&E arisings is not available. Total inert wastes originating from Cambridgeshire and Peterborough were extracted from the WDI (this includes wastes received and removed as per C&I wastes). As with other data extracted from the WDI, the inert dataset was cleansed by identifying waste classified as CD&E (including EWC Chapter 17 construction and demolition wastes, Chapter 01 wastes from mining and quarrying, as well as Chapters 19 and 20 soils, sand and stones) and removing waste recorded through intermediate facilities (non-hazardous and hazardous waste transfer sites and civic amenity sites).
52. As per the method applied to C&I waste arising, waste recorded through intermediate facilities was removed from the dataset, with waste recorded through transfer/treatment facilities captured under materials recycling at a rate of 25% of the recorded consignment.
53. In addition rates for non-hazardous and non-hazardous (SNRHW) landfill were determined by identifying the amount of waste recorded as being disposed of at facilities identified (by permit type) as non-hazardous and non-hazardous (SNRHW) landfill. Waste recorded at the Dogsthorpe and Eye North Eastern landfill sites were attributed to the correct facility type to address an anomaly identified in the WDI.
54. **The WDI 2017 returns indicate arisings (“as managed”) of 1.649Mt for 2017 from Cambridgeshire and Peterborough.** Of this around 0.501Mt was identified as wastes other than EWC 170504 non-hazardous soils and stones; the majority (92%) of which was received at facilities involving

preparation for reuse, recycling and other forms of recovery. It is widely acknowledged that there is a significant quantity of CD&E waste that is reused on site; this unseen capacity is not captured through the WDI database.

Defra 2019 UK statistics on waste

55. The Defra 2019 UK statistics on waste sets out estimates of CD&E waste (including dredging) for England of 116.8Mt for 2014 and 120.3Mt for 2016. Removing dredging spoils from the total CD&E results in a figure of 111.58Mt (Defra 2019, Table 7 & 5.1). Local estimates for 2016 were determined as a percentage of the total estimated CD&E arisings for England based on: i) the population percentage within the Plan area (1.5%, Office of National Statistics (ONS) mid-year estimates); and ii) the proportion of construction activity (dwelling completions) attributed to the Plan area (2%, Ministry of Housing, Communities and Local Government (MHCLG) Housing supply: Net additional dwellings 2001-02 to 2016-17). This method produced figures of 1.717Mt and 2.182Mt for 2016 respectively.
56. These figures were extrapolated forward using growth factors based on population growth and dwelling completions for the period 2014 to 2017 and **produced total arisings estimates of 1.746Mt and 1.622Mt for 2017 respectively.**

WRAP 2010 CD&E generation estimate

57. The WRAP 2010 CD&E waste generation estimate for England estimates arisings of 77.38Mt for 2010. Local estimates for 2010 were determined as a percentage of the total estimated CD&E arisings for England based on: i) the population percentage within the Plan area (1.5%, ONS) and ii) the proportion of construction activity (dwelling completions) attributed to the Plan area (2.3%, MHCLG). This method produced figures of 1.151Mt and 1.776Mt for 2010 respectively. These figures were extrapolated forward using growth factors based on population growth and dwelling completions for the period 2010 to 2017 and **produced total arisings estimates of 1.282Mt and 1.780Mt for 2017 respectively.**

Other national surveys

58. Previously national surveys were undertaken to estimate CD&E arisings (1998, 2003 and 2005) however the data includes a large margin of error and does not form the most up-to-date and best available data. As such these surveys have not been taken into account.

Identifying a local estimate

59. Estimated waste arisings derived from the WDI 2017, Defra 2019 and WRAP 2010 datasets were compared for the purpose of sensitivity testing. Arising's for 2017 using the above datasets and methods ranged between 1.282Mt and 1.780Mt, with an average of 1.61Mt for total CD&E arisings.

60. National CD&E waste arising reports (Defra 2019 and WRAP 2010) acknowledge that a significant percentage of construction and demolition waste arisings are managed or re-used on-site, or at exempt sites, and that this management capacity is unseen. This may go some way to explaining the variance between estimates and actual “as managed” CD&E arisings reported through surveys and the WDI; with the WDI forming the portion managed at permitted facilities and the remainder being the portion managed or re-used on-site, or at exempt sites. As such, and in the absence of any more accurate local data, the WDI database is taken to form the best available data regarding CD&E waste requiring management at permitted facilities for which Cambridgeshire and Peterborough, as WPAs, are responsible for. **The “as managed” figure derived from the WDI 2017 of 1.649Mt is to be taken as the current arisings to inform the plan making process.**
61. This method accords with the EoE WTAB methodology.
62. The WDI dataset indicates a split (based on a three-year average, 2015 to 2017) with regards to origin of total as managed arisings for Cambridgeshire and Peterborough of 74% and 26% respectively. The MHCLG dwelling stock completions dataset also provides detail at the individual authority level, indicating that the average percentage split of the total dwelling completions for the period 2010 to 2016 was 75% and 25% respectively. Population estimates produce similar results with a split of 77% and 23% respectively. **For the purpose of the WNA the average figures 75% for Cambridgeshire and 25% for Peterborough have been applied to determine arisings for individual authority areas and management needs over the period 2018 to 2036 (actual data reported for 2017).**
63. CD&E waste generated within Cambridgeshire and Peterborough and current management methods are summarised in the table below.

Table 3: CD&E waste arisings and management, 2017 (million tonnes)

Total CD&E waste		1.649
Cambridgeshire		1.344
Peterborough		0.305
Preparation for reuse and recycling	Materials recycling	0.177 (11%)
	Composting	0.039 (2%)
Inert processing/recycling		0.075 (5%)
Treatment and other forms of recovery		0.112 (7%)
Inert recovery and beneficial deposit to land (includes deposit of inert waste to land to facilitate restoration of permitted mineral extraction sites)		0.715 (43%)
Disposal to inert landfill		0.262 (16%)
Disposal to non-hazardous landfill (including SNRHW)		0.268 (16%)
<i>Non-hazardous landfill</i>		<i>0.247</i>
<i>Non-hazardous (SNRHW) landfill</i>		<i>0.022</i>

64. Management rates reported for 2017 are based on actuals as per returns recorded in the WDI 2017.

Hazardous waste

65. Hazardous waste has historically been considered material that poses the greatest risk to human health or the environment, including materials such as asbestos, oils, solvents and chemical wastes. The Landfill Directive refers to some wastes as ‘hazardous’, rather than ‘special’, broadening the definition to include everyday items such as fluorescent tubes, monitors and televisions that have reached the end of their lives. Hazardous materials are subject to strict controls on carriage, treatment and disposal. Even so, as hazardous waste is generated from such a wide array of uses and operations (from households, healthcare/medical and industry) the way that it is recorded is not the same; this may result in data omissions or anomalies.

Hazardous Waste Data Interrogator

66. The most accurate data available on hazardous waste arisings is from the Hazardous Waste Data Interrogator (HWDI). Data held on the HWDI is derived from waste operator returns submitted to the EA, who maintain the HWDI.
67. The WDI 2017 returns indicate arisings (“as managed”) of 0.044Mt for all consignments arising in Cambridgeshire and Peterborough. As with data extracted from the WDI, waste recorded through intermediate facilities was removed from the hazardous waste dataset. **The “as managed” figure derived from the HWDI 2017 of 0.044Mt is to be taken as the current arisings to inform the plan making process.** This method accords with the EoE WTAB methodology.

68. The HWDI indicates an average split (2015 to 2017) with regards to origin of total as managed arisings for Cambridgeshire and Peterborough of 77% and 23%; these figures have been applied to determine arisings for individual authority areas and management needs for the purpose of the WNA over the period 2018 to 2036 (actual data reported for 2017).
69. Hazardous waste generated within Cambridgeshire and Peterborough and current management methods are summarised in the table below.

Table 4: Hazardous waste arisings and management, 2017 (million tonnes)

Total hazardous waste	0.044
Cambridgeshire	0.033
Peterborough	0.011
Recovery (includes preparation for reuse and recycling)	0.028 (63%)
Treatment and other forms of recovery (includes incineration with energy recovery)	0.008 (17%)
Disposal via incineration without energy recovery	0.003 (8%)
Disposal to hazardous landfill	0.005 (12%)

70. Management methods (applied from 2018 to 2036) were derived as an average of the HWDI 2015 to 2017 management rates. The three-year average is likely to indicate emerging trends and best reflect local circumstance and trends. Management rates reported for 2017 are based on actuals as per returns recorded in the WDI 2017.

Radioactive waste

71. It is essential that all radioactive waste and materials be safely and appropriately managed in ways that pose no unacceptable risks to people or the environment. The decommissioning of nuclear power reactors produces the majority of radioactive waste in the UK, with other sources including the generation of electricity in nuclear power stations and from the associated production and processing of the nuclear fuel, use of radioactive materials in industry, medicine and research, extraction of materials which include some naturally occurring radioactive materials, and from military nuclear programmes.
72. Radioactive waste is divided into categories according to how much radioactivity it contains and the heat that this radioactivity produces, the main categories including high, intermediate and low level waste. Low level radioactive waste (LLW) may comprise building rubble, soil and steel items arising from the decommissioning and clean-up of nuclear reactors, facilities and sites as well as paper, plastics and scrap metal items from the operation of nuclear facilities.
73. The Nuclear Decommissioning Authority (NDA) 2016 Inventory does not identify any radioactive waste produced within Cambridgeshire and

Peterborough. The Inventory is updated every three years as such the 2016 Inventory forms the best available information.

74. The Department of Energy and Climate Change (DECC) undertook a survey to provide an overall view of the waste arisings and disposals from the non-nuclear sector “Data collection on solid low-level waste from the non-nuclear sector November 2008”, which identifies estimates of LLW arisings by WPA. Estimates of LLW from the non-nuclear industry (DECC 2008, Table 3) indicate arisings of 37.61m³ or 770kg for Cambridgeshire (0.07% of the total non-nuclear arisings reported through the survey for England, Scotland and Wales) and none for Peterborough for the reporting year 2007. Though dated this is the best available information on radioactive waste arisings from the non-nuclear industry.
75. Arisings of radioactive waste from both nuclear and non-nuclear industries within Cambridgeshire and Peterborough are very low; the Plan area is not a significant producer of radioactive wastes. There is currently no capacity for radioactive waste management within the Plan area.

Other wastes

76. Agricultural waste and wastewater are also generated within Cambridgeshire and Peterborough. There are no national or local targets for the management of such wastes, however these wastes have been taken into consideration at an appropriate level (outlined below).
77. Agricultural waste is waste material that is generated from agricultural premises; the majority of agricultural waste is not classified as controlled wastes. The majority of agricultural wastes are bulk materials such as animal manure and waste slurries. Non-natural agricultural wastes include discarded pesticide containers, plastics, bags and sheets, tyres, batteries, clinical waste, old machinery, oil, packaging waste, etc. The WFD captures non-natural components of this waste stream, which account for a very small amount⁸ (<1%) and are thought to be managed via the use of HRCs and transfer to others (contractors). The EA 2000 Strategic Waste Management Assessment: East of England (Table 2.7) estimated total agricultural arisings of 0.508Mt for Cambridgeshire (includes Peterborough); of which 0.007Mt was made up of non-natural waste (vegetable/plant waste and animal matter making up 0.501Mt or 98.7%). Very little data is available on waste arisings within the agricultural sector, particularly at a local level. As such the WNA assumes that the non-natural component of agricultural waste is captured under either trade waste received at HRCs or within the C&I waste stream.

⁸ EA 2001 Towards sustainable agricultural waste management (R&D Technical Report P1-399/1) indicated arisings of non-natural components for 2000 of 0.5Mt for the UK. Figures for agricultural waste cannot account for wastes stockpiled on site (at farms).

78. Sewage and wastewater is managed by Anglian Water within Cambridgeshire and Peterborough. Water cycle studies, flood risk assessments and water management plans have been undertaken by the District Councils, Peterborough City Council (as a unitary authority) and Cambridgeshire County Council with the purpose of identifying major issues associated with the planned growth for the area such as sewage treatment, water quality, supply and efficiency, flood risk management and sustainable drainage systems. The emerging MWLP will include policies that are generally supportive of an increase in sewage treatment capacity where required to serve existing or planned development in accordance with the Development Plan.

Forecasting waste arisings over the plan period

79. In order to plan for provision of new capacity it is first necessary to forecast waste arisings over the plan period. This has been done separately for each of the waste streams (municipal, C&I, CD&E and hazardous waste) due to the different factors that drive waste arisings and affect growth. Waste arising forecasts for individual streams are detailed below.

Municipal waste

80. Municipal waste management is subject to commercial contracts that determine current and future management methods and rates. Within Cambridgeshire municipal waste is managed through commercial contracts at the following facilities types: MBT, In-vessel (IV) and open windrow (OW) composting, HRCs, baling and shredding (tyres), landfill as well as incineration and rotoclave (clinical wastes). One contract covers the majority of municipal for waste processing (MBT, compost, HRC, and landfill facilities); this contract extends up to 0.500Mtpa to March 2036 (can be extended to up to March 2041). There may be opportunities to increase future recovery rates under this contact dependent on the contractor's operational arrangements. Processing of waste through the MBT reduces the amount sent to landfill (predominantly through moisture loss); current rates suggest around 30% loss.
81. Within Peterborough municipal waste is managed through commercial contracts at the following facilities types: AD, OW composting, ERF – thermal treatment with energy recovery, MRF, HRCs and landfill.
82. The contract for waste processing through the ERF facility is for up to 0.085Mtpa to March 2046. The ERF was officially opened in March 2016 and is located in Fengate, Peterborough. Around 55% of Peterborough's

municipal waste is recovered through the ERF with waste processed through AD (with energy recovery) adding to the recovery rate.

83. The existing waste management contracts have been incorporated into targets and forecasts to the fullest extent possible based on information supplied.
84. The Cambridgeshire and Peterborough Waste Partnership (RECAP) are responsible for preparing the Joint Municipal Waste Management Strategy (JMWMS) for Cambridgeshire and Peterborough. The adopted JMWMS period is for 2008 to 2022. A review has not yet commenced and so it is not available to inform the plan-making process at this stage. However, in preparing this WNA officers have liaised closely with waste management teams for Cambridgeshire and Peterborough in order to reflect future intent regarding municipal waste management at an appropriate level. The economic and political climate influences waste management contracts and practices at both district and unitary/county council levels. Contractual arrangements and recent trends suggest that the targets set out in the JMWMS may not be realistic across all authorities. Targets included in the JMWMS include:
 - 50 to 55% of household waste recycled and/or composted by 2015 – This target was achieved with an overall rate of 53.4% in 2015 (Cambridgeshire 57.3% and Peterborough 38.7%).
 - 55 to 65% of household waste recycled and/or composted by 2020 – This target may be challenging for Peterborough due to contractual arrangements (household recycling and composting rate of 43.4% in 2017) but is achievable for Cambridgeshire with rates currently just below the target range (household recycling and composting rate of 54.8% in 2017).
85. Targets in the JMWMS exceed the WFD target of 50% of municipal waste to be reused and/or recycled by 2020.
86. For the purpose of the plan-making process alternative targets are proposed, set out in the table below. The proposed targets are based on overall recovery and disposal rates as this approach is considered to allow for flexibility between authority areas and to reflect contracts.
87. Although separately Peterborough would not meet the WFD target based on the proposed targets due to contractual arrangements, jointly Cambridgeshire and Peterborough would do. The proposed targets would result in 53% of municipal waste being reused and/or recycled, with an overall recovery rate of 76% by 2020.

Table 5: Municipal waste targets

WPA	Waste hierarchy level	Target
Joint WPAs (Cambridgeshire and Peterborough)	Total recovery*	90% by 2030 onwards (55% preparation for reuse and recycling and 35% other recovery)
	Disposal (non-hazardous landfill – includes SNRHW)	Maximum 10% from 2030 onwards
Cambridgeshire	Total recovery*	90% by 2030 onwards (60% preparation for reuse and recycling and 30% other recovery)
	Disposal (non-hazardous landfill - includes SNRHW)	Maximum 10% from 2030 onwards
Peterborough	Total recovery*	Minimum of 90% from 2017 onwards (around 40% preparation for reuse and recycling and >50% other recovery**)
	Disposal (non-hazardous landfill - includes SNRHW)	Less than 10% from 2017 onwards

* Note that there is no block to exceeding the total recovery targets and further reducing landfill/disposal rates.

** Dependent on future contract arrangements.

88. The following assumptions were made in preparing the municipal waste forecasts:
- Current recycling and composting rates will not decrease.
 - Rates (%) applied to determine household and trade components of total municipal waste, tonnes per person per annum as well as recycling and composting are based on an average of figures over recent years (for the period 2011-2017) with data sourced from Defra LACW statistics, Waste Data Flow and council records.
 - Application of targets was achieved by applying an even graduation from current rates (2017) up to the full target rate (applied at the target year e.g. 2030).
89. Municipal waste arisings for the year 2017 (of 0.415Mt) were forecast over the plan period (up to 2036) using a growth profile derived from population projections and waste generation per person per annum. Population data was sourced from the CE 2016 dataset with data supplemented with estimates from the Cambridge Insight July 2017 Population and dwelling stock estimates and 2015-based population and dwelling stock forecasts. Waste generation per person per annum was assumed at 0.5 tonnes per person for Cambridgeshire and 0.45 tonnes per person for Peterborough.

This method accords with both the EoE WTAB methodology and the NPPG (Waste, paragraph 029).

90. Forecast municipal waste arising and management methods over the plan period (at five year intervals) are detailed in the table below.

Table 6: Municipal waste forecast by management method up to 2036 (million tonnes)

		2017	2021	2026	2031	2036
Total municipal waste arisings		0.415	0.451	0.484	0.501	0.510
Cambridgeshire		0.329	0.354	0.380	0.393	0.402
Peterborough		0.087	0.097	0.104	0.108	0.108
Preparation for reuse and recycling	Materials recycling	0.121	0.130	0.144	0.152	0.155
	Composting	0.100	0.113	0.124	0.132	0.134
Treatment and other forms of recovery		0.080	0.109	0.146	0.175	0.178
<i>Total recovery</i>		0.300	0.352	0.414	0.458	0.466
Disposal to non-hazardous landfill (includes SNRHW)		0.114	0.098	0.070	0.043	0.043

91. Note that a small amount of municipal (clinical) waste is disposed of via incineration without energy recovery and this is expected to continue over the plan period potentially increasing (up to 1,000 tpa).
92. Insufficient data was available to determine proportion of municipal waste forecast to be disposed of at non-hazardous and non-hazardous (SNRHW) landfill, as such all waste disposed of has been captured as non-hazardous landfill (including SNRHW).
93. Other biological waste management processes, such as AD, may take up compost capacity where the waste composition input into the facility captures that waste that would otherwise have been processed by composting.

Commercial and industrial waste

94. C&I waste management is subject to commercial contracts that determine current and future management methods and rates. Information regarding individual contracts is not available to the council and the council is not able to exert direct influence over such matters. However a range of legislative and market drivers exist (e.g. landfill tax, targets and producer responsibility measures) that are driving change and seeing more waste diverted from landfill.
95. Targets for C&I waste, are limited to packaging recycling and recovery targets as set out in the Packaging and Packaging Waste Directive 94/62/EC. Packaging waste targets have recently been reviewed by Defra with updated targets including 75% of packaging waste recycled and 82% recovered (in total) by 2020. Current arisings “as managed” from the WDI

2017 indicate 0.011Mt of packaging waste (EWC Chapter 15) was generated from within Cambridgeshire and Peterborough, of which 89% is recycled, another 10% is otherwise recovered and less than 1% is disposed of to non-hazardous landfill.

96. For the purpose of the plan-making process targets of 90% recovery and a maximum 10% disposal to landfill by 2030 for all C&I waste are proposed. The proposed targets are based on overall recovery and disposal rates as this approach is considered to allow for flexibility regarding market demands and commercial contracts. Current management method rates for arisings as managed sourced from the WDI 2017 indicate total recovery rate of 74%. The WDI 2017 dataset also indicates that of the wastes currently sent for disposal the majority of this is potentially recoverable. Note that there is no block to exceeding the total recovery targets and further reducing landfill/disposal rates.
97. As previously outlined, and in line with the EoE WTAB methodology, estimates for current arisings were determined as a percentage of the plan areas total arisings from the Defra 2009 and Defra 2019 datasets with figures taken forward to 2017 to enable comparison with the WDI 2017 arisings as managed figure. Growth profiles included both total GVA and individual business sector GVA annual increase (CE 2016). These growth profiles were applied to the estimates, including the WDI 2017 data, over the plan period to forecast arisings up to 2036. The average of the estimates has been taken to form the current arisings estimate and the forecast figures to inform the plan making process. This methodology accords with the EoE WTAB methodology and NPPG (Waste, paragraph 032).
98. Management methods applied to forecasts were derived from the three-year average of the WDI (2015 to 2017) management rates. Although there was some fluctuation in management method rates over the three-year period the average is likely to indicate emerging trends and best reflect local circumstance and trends. Rates for management methods have been applied and increased incrementally to achieve targets as relevant.
99. The following assumptions were made in preparing the C&I waste forecasts:
 - Growth in C&I waste arisings is a direct factor of economic growth.
 - Current recycling, composting and recovery rates will not decrease.
 - Application of targets was achieved by applying an even graduation from current rates (2017) up to the full target rate (applied at the target year e.g. 2030).
 - The proportion of waste types attributed to business sectors identified through the Defra 2009 and Defra 2019 datasets is transferable to Cambridgeshire and Peterborough.

- Waste recorded at intermediate facilities (i.e. waste transfer stations) is subsequently managed, and accounted for, at other waste management facilities (e.g. MRF, treatment, landfill, etc.).
- Waste recorded through intermediate facilities identified as transfer/treatment in the WDI, as the facility involves some form of preparation for re-use and/or recycling, has been captured under materials recycling at a rate of 25% of the recorded consignment.
- Rates for apportioning disposal to non-hazardous and non-hazardous (SNRHW) landfill (from total 'non-hazardous landfill – including SNRHW') have been assumed to be constant over the plan period.

Table 7: C&I waste forecast by management method up to 2036 (million tonnes)

		2017	2021	2026	2031	2036
Total C&I waste arisings		0.674	0.728	0.799	0.873	0.954
Cambridgeshire (77%)		0.519	0.560	0.615	0.672	0.735
Peterborough (23%)		0.155	0.167	0.184	0.201	0.219
Preparing for reuse and recycling	Materials recycling	0.364	0.393	0.432	0.471	0.515
	Compost	0.061	0.066	0.072	0.079	0.086
Other recovery	Treatment and other forms of recovery	0.081	0.116	0.168	0.218	0.239
	Soil treatment	0.013	0.015	0.016	0.017	0.019
<i>Total recovery</i>		<i>0.519</i>	<i>0.590</i>	<i>0.687</i>	<i>0.786</i>	<i>0.859</i>
Disposal to non-hazardous landfill (includes SNRHW)		0.155	0.138	0.112	0.087	0.095
<i>Non-hazardous landfill</i>		<i>0.148</i>	<i>0.132</i>	<i>0.107</i>	<i>0.084</i>	<i>0.091</i>
<i>Non-hazardous (SNRHW) landfill</i>		<i>0.007</i>	<i>0.006</i>	<i>0.005</i>	<i>0.004</i>	<i>0.004</i>

Construction, demolition and excavation waste

100. CD&E waste management is also subject to commercial contracts that determine current and future management methods and rates. As with C&I waste this information is not available to the council and the ability of the council to directly influence such matters is limited, however a similar range of legislative and market drivers (including the Aggregates Levy) are acting on operators to divert waste from landfill.
101. Targets for CD&E waste are limited to that set out in the WFD requiring recovery of at least 70% of C&D wastes by 2020 (excluding naturally occurring material defined in category EWC170504 – non-hazardous soils and stones), including backfilling operations using waste to substitute other materials. Current arisings “as managed” from the WDI 2017 indicate that a total of 0.501Mt of such waste, excluding EWC170504 (which accounted for 1.148Mt), was generated from within Cambridgeshire and Peterborough, of

which 48% is recycled, another 44% is otherwise recovered⁹ (totalling 92% total recovery) with 8% disposed of to landfill. The WDI 2017 dataset also indicates that of the wastes (scoped in, i.e. other than EWC170504) currently sent for disposal to landfill some of this is potentially recoverable. Of the 8% that is disposed of to landfill it is estimated that 5% of this potentially recoverable¹⁰; 5% of the Plan areas CD&E waste (not including EWC 170504) disposed of to landfill equates to around 0.002Mt for 2017. Permission was recently granted for an EfW facility at Warboys for the processing of CD&E wood waste. Arisings over the most recent three-year period (2015 to 2017) average 1,739 tonnes (t); this has been rounded up to 2,000 tpa in order to apply future arisings and determine capacity gap for this management method over the plan period. The majority of this waste was previously processed at mixed non-hazardous waste recycling facilities (e.g. MRFs), the 2,000 tpa has been subtracted from future need and capacity totals (for non-hazardous preparation for re-use and recycling).

102. For the purpose of the plan-making process targets for CD&E waste (excluding EWC170504) of 90% recovery and a maximum 10% disposal to landfill by 2030 are proposed; these targets build on the existing WFD target. The proposed targets are based on overall recovery and disposal rates as this approach is considered to allow for flexibility regarding market demands and commercial contracts. Note that there is no block to exceeding the total recovery targets and further reducing landfill/disposal rates.
103. As previously outlined, and in line with the EoE WTAB methodology, the “as managed” figure derived from the WDI 2017 has been taken as the current CD&E arising’s. Estimated waste arisings derived from the WDI 2017, Defra 2019 and WRAP 2010 datasets were compared for the purpose of sensitivity testing, with the WDI figures identified as best representing waste requiring management within the Plan area (whereas other estimates represented total arising’s, which includes a portion that is re-used or managed on-site or at exempt sites).
104. A growth profile, based on dwelling stock forecasts (forming a more conservative approach), was applied to the WDI 2017 arisings as managed figure (1.649Mt) over the plan period to forecast arisings up to 2036.
105. It should be noted that generation of CD&E waste is different from other waste streams in that it is tied to construction and/or demolition projects (e.g. redevelopment, housing construction, infrastructure projects, etc.) and so does not grow year-on-year but is time-limited (i.e. stops and starts along with each project). Where the annual increase forecast for dwelling stocks

⁹ Other recovery includes soil treatment and inert recovery (including beneficial deposit of inert waste to land associated with the restoration of mineral extraction sites with extant permission).

¹⁰ WRAP 2016 Management of Non-Aggregate Waste Report estimates up to 5% of CD&E apportioned to landfill could be managed through EfW processes.

remains steady (i.e. the same year-on-year) no growth was forecast however where the forecast indicated an increase or decrease the percentage increase or decrease was applied to the CD&E forecast. Forecasts for dwelling stock were sourced from CE 2016 dataset with data supplemented with estimates from the Cambridge Insight July 2017 Population and dwelling stock estimates and 2015-based population and dwelling stock forecasts. The forecasts indicate that there may be some fluctuations but overall the arisings remain the same with very little change.

106. There are no specific significant planned regeneration or major infrastructure projects identified within the plan area as per the National Infrastructure Delivery Plan (NIDP) 2016 to 2021 that would result in a significant increase in waste generation (not accounted for through dwelling stock forecasts). The NIDP identifies the Cambridge-Milton Keynes-Oxford corridor for delivery of proposals for unlocking growth, housing and jobs, in addition it identifies potential projects for the Plan area including improvements to the A14 between Cambridge and Huntingdon, A1 East of England (2020-25) and new hospital facilities to be provided in Cambridgeshire (by 2021). The A14 upgrade is under construction, due for completion in 2021. No specific detail is set out regarding other proposals. The proposed Northstowe development, a proposed new town providing 10,000 new homes alongside town centre, community facilities and commercial space set to be developed on the former Oakington Barracks site to the north of Cambridge, has been accounted for through dwelling stock forecasts.
107. The approach applied to forecasting arisings for CD&E strikes a balance between reflecting growth patterns and forecasting based on waste arisings remaining constant over time. This methodology accords with the EoE WTAB methodology and NPPG (Waste, paragraph 033).
108. Management methods were derived from the three-year average of the WDI (2015 to 2017) management rates. Although there was some fluctuation in management method rates over the three-year period the average is likely to indicate emerging trends and best reflect local circumstance and trends. Rates for management methods have been applied and increased incrementally to achieve targets as relevant.
109. The following assumptions were made in preparing the CD&E waste forecasts:
 - Growth in CD&E waste is tied to construction and/or demolition projects and so does not continually grow year-on-year.
 - Dwelling stock forecasts indicate general construction activity likely to take place and waste generation.
 - Current recycling and recovery rates will not decrease.

- Application of targets was achieved by applying an even graduation from current rates (2017) up to the full target rate (applied at the target year e.g. 2030).
- There is a significant quantity of CD&E waste that is reused on site, this will continue to be the case; this unseen capacity is not captured through the WNA forecasts or capacity analysis.
- Waste recorded at intermediate facilities (i.e. waste transfer stations) is subsequently managed, and accounted for, at other waste management facilities (e.g. MRF, treatment, landfill, etc.).
- Waste recorded through intermediate facilities identified as transfer/treatment in the WDI, as the facility involves some form of preparation for re-use and/or recycling, has been captured under materials recycling at a rate of 25% of the recorded consignment.
- Rates for apportioning disposal to non-hazardous and non-hazardous (SNRHW) landfill (from total 'non-hazardous landfill – including SNRHW') have been assumed to be constant over the plan period.

Table 8: CD&E waste forecast by management method up to 2036 (million tonnes)

		2017	2021	2026	2031	2036
Total CD&E waste arisings		1.649	1.649	1.647	1.641	1.637
Cambridgeshire (75%)		1.344	1.237	1.235	1.231	1.228
Peterborough (25%)		0.305	0.412	0.412	0.410	0.409
Preparing for reuse and recycling	Materials recycling	0.176	0.173	0.179	0.182	0.182
	Compost	0.039	0.028	0.029	0.030	0.029
	Inert recycling	0.075	0.054	0.055	0.056	0.056
Other recovery	Energy recovery - wood waste	0.001	0.002	0.002	0.002	0.002
	Soil treatment	0.112	0.095	0.097	0.099	0.099
	Inert recovery	0.715	0.755	0.758	0.759	0.757
<i>Total recovery</i>		<i>1.118</i>	<i>1.106</i>	<i>1.120</i>	<i>1.128</i>	<i>1.126</i>
Disposal (landfill)	Inert	0.262	0.176	0.175	0.174	0.174
	Non-hazardous (including SNRHW)	0.268	0.365	0.350	0.337	0.337
	<i>Non-hazardous</i>	<i>0.247</i>	<i>0.350</i>	<i>0.338</i>	<i>0.327</i>	<i>0.326</i>
	<i>Non-hazardous (SNRHW)</i>	<i>0.022</i>	<i>0.015</i>	<i>0.013</i>	<i>0.010</i>	<i>0.010</i>

** Inert recovery includes beneficial deposit of inert waste to land associated with the restoration of mineral extraction sites with extant permission.*

Hazardous waste

110. There are no targets for the management of hazardous wastes. Hazardous wastes are generated from a wide array of uses and operations (from households, healthcare/medical and industry); as such the drivers that act on municipal, C&I and CD&E wastes also influence the generation and

management of hazardous waste. Time series data for hazardous waste arisings was extracted from the HWDI for the last five years. The HWDI as managed data indicates a steady increase from 0.034Mtpa to current levels of 0.044Mtpa.

111. Commercial and industrial business sector operations are thought to account for a large proportion of hazardous wastes generated. As such the growth profile applied to C&I waste was also applied to hazardous waste. This growth profile was applied to the “as managed” figure derived from the HWDI 2017 of 0.044Mt. As there are no targets for hazardous waste the management methods were derived from the three-year average of the WDI (2015 to 2017) management rates. Although there was some fluctuation in management method rates over the three-year period the average is likely to indicate emerging trends and best reflect local circumstance and trends.
112. This method accords with the EoE WTAB methodology and the NPPG (Waste, paragraph 034).
113. The following assumptions were made in preparing the C&I waste forecasts:
 - Growth in hazardous waste reflects that of C&I waste.
 - Current recycling and recovery rates will not decrease.
 - Waste recorded at intermediate facilities (i.e. waste transfer stations) is subsequently managed, and accounted for, at other waste management facilities (e.g. MRF, treatment, landfill, etc.), as indicated in the WDI (e.g. Transfer (D) / Transfer (R) indicates waste transfer prior to disposal / recovery).

Table 9: Hazardous waste forecast by management method up to 2036 (million tonnes)

		2017	2021	2026	2031	2036
Total hazardous waste arisings		0.044	0.047	0.052	0.057	0.062
Cambridgeshire (77%)		0.033	0.036	0.040	0.044	0.048
Peterborough (23%)		0.011	0.011	0.012	0.013	0.014
Recovery	Reuse and recycling	0.028	0.028	0.030	0.033	0.036
Other recovery	Treatment and incineration with energy recovery	0.008	0.009	0.010	0.011	0.012
<i>Total recovery</i>		<i>0.035</i>	<i>0.037</i>	<i>0.040</i>	<i>0.044</i>	<i>0.048</i>
Disposal	Hazardous landfill	0.005	0.007	0.008	0.009	0.010
	Incineration (no energy recovery)	0.003	0.003	0.004	0.004	0.004

Low Level Radioactive Waste

114. Forecasts for LLW have not been prepared as part of this WNA given the very low arisings previously recorded and the reduced evidence base on which forecasts can be based.

Residual waste arisings

115. Waste materials are also produced as a result of waste treatment processes. An increase in waste diverted from disposal to landfill, treated at sustainable waste management facilities, will result in an increase in residues arising as an output from waste treatment processes. Not all of this material needs be disposed of to landfill; it can be re-used within the operational cycle, further processed using other technologies, used in construction or recycled.
116. Potential residual waste arisings have been calculated to provide a broad guide to possible arisings over the plan period, however the application of such figures is heavily caveated. Estimated residue output rates are derived from a limited range of technologies that may not reflect the final technologies that come on stream during the plan period. This is due to the dynamic nature of the waste management industry and emerging technologies. Hence it is recognised that, although it is necessary to acknowledge the potential future capacity requirements for disposal, forecasts for residual arisings requiring disposal to landfill cannot be determined with any level of certainty.
117. Residue output rates (per one tonne of waste input) applied to determine potential arisings are: processing of recyclables (e.g. MRF) 15% of input; composting 15% of input; MBT processing may reduce the amount of waste input by around 20% with outputs potentially including recyclable material (up to around 30% of input), organic output suitable as a refuse derived fuel (up to 50% of input) and disposed of to landfill (up to 20% of input); and thermal treatment with energy recovery (e.g. incineration) (20%). Small amounts of hazardous residual waste may also be produced from thermal treatment processes (3% of input). Outputs vary widely and are dependent on the technology employed, scale of facility, waste composition, type of waste input, quality of waste input (e.g. contaminant level and calorific value) and operational efficiency of individual plant/facility. It is estimated that residues could account for: non-hazardous waste in the amount of an additional 0.170Mtpa by 2026 and 0.196Mtpa by 2036 (that may also be able to be subject to further treatment or disposed of to landfill); incinerator bottom ash (IBA) in the amount of 0.040Mtpa by 2026 and 0.052Mtpa by 2036 that could be reused as aggregate¹¹; and hazardous wastes in the amount of an additional 0.009Mtpa by 2026 and 0.013Mtpa by 2036.

¹¹ Mineral Products Association 2019 Contribution of recycled and secondary materials to total aggregates supply in Great Britain indicates that 86% of IBA can be reused as aggregate.

118. Some residual waste from treatment processes as per the current management methods and rates are captured through the EA WDI data and include EWC Chapter 19 wastes¹². It should be noted that EWC 191212 (other wastes including mixtures of materials from mechanical treatment of wastes other than those mentioned in 191211), in particular might not necessarily be a waste residue from treatment processes. This code can apply to waste that has been processed through an intermediate (transfer) facility or MRF and classified as sorting/MRF rejects. Such wastes may be suitable for treatment rather than going for disposal and so should be scoped in. There is no sure way to determine how much of the EWC 191212 waste is actually residues or sorting/MRF rejects suitable for treatment. Residual wastes captured through the EA WDI 2017 totalled 0.351Mt¹³ of which 0.289Mt was EWC 191212 (82%). The remaining 0.063Mt included wastes from AD processes (16%), wastes from soil remediation (7%) and a very small amount of waste from other treatment processes (less than 1%). This data has informed the estimated waste arisings, and is captured under C&I and CD&E wastes. As previously discussed the forecast estimates of residuals has not been added onto the waste arisings forecasts as there is too much uncertainty around these figures, and so its highly likely that doing so would result an overestimate. The figures in the previous paragraph set out potential residual waste arisings calculated (using the waste arisings, targets and management methods/rates) for the plan-making process to provide a broad guide to possible arisings over the plan period, however the application of such figures is heavily caveated (as stated above). As some residues from waste treatment processes are captured through the EA WDI data this could mean that the estimates in the previous paragraph could be reduced by a comparable amount (as that captured through the EA WDI). Ultimately doing so would not provide a clearer picture of potential arisings of residues from waste treatment processes, as the figures are so heavily caveated.
119. The indicative future needs for the Plan area do not include residual arisings (in addition to those captured through the WDI dataset) produced from other treatment processes due to the uncertainty associated with the figures.

¹² Note that EWC sub-chapter 1912 (waste from the mechanical treatment of waste (e.g. sorting, crushing, compacting, pellatising) not otherwise specified) includes many wastes that can be clearly identified (e.g. plastic, glass, paper, wood, etc.) that, for the purpose of the plan-making process, are not captured under residual wastes as these are wastes that have been sorted into specific streams with the intention of being transferred onto treatment facilities (or that could be).

¹³ It is possible that some of this made up of outputs generated from waste imported into the plan area and processed at treatment facilities within the plan area.

Monitoring future arisings

120. Where possible future arisings (actuals and estimates) will be monitored from the best available information sources as part of the annual monitoring report.

Waste movements

121. Not all waste can be managed within the boundary of the WPA from within which it arises. This is due to contractual arrangements, operational networks and capacity requirements as well as geographical convenience and other factors. There will normally be some movement of waste into and out of WPAs; this is reflected by the position of seeking net self-sufficiency.
122. Waste movements have been determined by analysing data extracted from the WDI 2017 based on all waste received at facilities within Cambridgeshire and Peterborough (imports) and all waste removed from Cambridgeshire and Peterborough to other WPAs (exports).
123. A total of 5.778Mt of waste was reported as being received at waste management facilities within the Plan area (including at intermediate facilities such as transfer stations). Of this 3.690Mt was reported as originating from within Cambridgeshire and Peterborough (with 0.977Mt attributed to intermediate facilities).
124. The remaining 2.088Mt of waste that was reported as being received at facilities within the Plan area originated from other WPA's. Of this 0.092Mt was attributed to intermediate facilities, leaving 1.996Mt of waste imported from other WPAs for management (including disposal). Detail on waste imports is set out in the following section.
125. A total of 0.782Mt of waste was reported as being removed from the Plan area (originating from Cambridgeshire and Peterborough) for management at other WPAs. Of this 0.244Mt was attributed to intermediate facilities, leaving 0.539Mt of waste exported to other WPAs for management (including disposal). Detail on waste exports is also set out in the following section.
126. Overall Cambridgeshire and Peterborough are net importers of waste, with significantly (around four times) more waste imported than exported.
127. Waste movements also occur within the Plan area. Peterborough received 0.322Mt of waste that was generated from within Cambridgeshire, of which over 80% was CD&E waste with the majority being disposed of to inert landfill (with the majority believed to be associated with the engineering/restoration needs of one particular site). Cambridgeshire received 0.175Mt of waste that was generated from within Peterborough, of which just under 40%

was CD&E waste with the majority being deposited to land as an inert recovery operation (associated with restoration of a mineral extraction site).

128. During 2017 waste movements within the Plan area indicate that Peterborough imported significantly more waste (around 180%) from Cambridgeshire than it exported. Interestingly, movements within the Plan area in 2016 were roughly self-balancing. This demonstrates how waste movements can vary dependant on commercial contracts and market drivers.

Waste imports and exports

Waste imported from other WPAs

129. In total 2.088Mt of waste was reported as being received at facilities within the Plan area that originated from other WPA's. Of this 0.092Mt was attributed to intermediate facilities, leaving 1.996Mt of waste imported from other WPAs for management (including disposal).
130. Rates for the various management method include:
- Materials recycling 17%,
 - Biological processing 7% (composting 6%, AD <2%, MBT <1%),
 - Soil treatment 3%,
 - Other recovery and treatment 8%,
 - Inert recovery and deposit of inert waste to land associated with restoration of mineral extraction sites 10%,
 - Inert landfill <1%,
 - Non-hazardous landfill (includes SNRHW) 56%.
131. Over half of waste imported from other WPAs is disposed of to non-hazardous landfill (including SNRHW); main sites receiving waste from other WPAs include Barrington Works, Buckden North, Dogsthorpe, Witcham Meadlands and Eye North Eastern.
132. Waste imported into the Plan by region (and WPA) for management and disposal include:
- East Midlands 0.164Mt - the largest contributors were Lincolnshire 0.079Mt and Northamptonshire 0.045Mt, others include Derby, Derbyshire, Leicester, Leicestershire, Nottingham, Nottinghamshire and Rutland. A total of 0.002Mt was reported as WPA not codeable but arising from within the East Midlands region.
 - East of England 0.731Mt - the largest contributors were Hertfordshire 0.197Mt, Suffolk 0.106Mt, Norfolk 0.109Mt, Essex 0.057Mt and Bedford, Central Bedfordshire and Luton combined 0.0029Mt with others including Southend-on-Sea and Thurrock. A total of 0.220Mt was reported as WPA not codeable but arising from within the East of England region.

- London 0.757Mt - the largest contributors were Ealing 0.461Mt (0.441Mt inert recovery), Brent 0.092Mt and Hounslow 0.053Mt, with others including Barking & Dagenham, Barnet, Bexley, City of London, Croydon, Enfield, Greenwich, Hackney, Hammersmith & Fulham, Haringey, Harrow, Havering, Hillingdon, Hounslow, Kingston Upon Thames, Lewisham, Merton, Newham, Redbridge, Southwark, Sutton, Tower Hamlets, Waltham Forest and Wandsworth. A total of 0.093Mt was reported as WPA not codeable but arising from London (53%), Central London (<1%) and South London (47%).
- North East of England 0.001Mt – WPAs include County Durham, Gateshead, Hartlepool, Newcastle-upon-Tyne, North Tyneside, Northumberland, Redcar & Cleveland, South Tyneside and Stockton-on-Tees. A total of 0.001Mt was reported as WPA not codeable but arising from the North East region.
- North West of England 0.050Mt – the largest contributor was Manchester 0.031Mt, with other WPAs including Blackpool, Bolton, Bury, Cheshire West and Chester, Cumbria, Lancashire, Oldham, Rochdale, Salford, Sefton, St Helens, Stockport, Tameside, Trafford, Warrington and Wigan. A total of 0.004Mt was reported as WPA not codeable but arising from the North East region.
- South East 0.179Mt - the largest contributor was Milton Keynes 0.031Mt, with other WPAs including Berkshire, Bracknell Forest, Brighton & Hove, Buckinghamshire, East Sussex, Hampshire, Isle of Wight, Kent, Medway, Oxfordshire, Portsmouth, Reading, Slough, Southampton, Surrey, West Berkshire, West Sussex, Windsor & Maidenhead and Wokingham. A total of 0.083Mt was reported as WPA not codeable but arising from the South East.
- South West 0.008Mt – the largest contributor was Bristol 0.007Mt, with other WPAs including Bath & North East Somerset, Bournemouth, Cornwall, Devon, Dorset, Gloucestershire, North Somerset, Poole, Somerset, South Gloucestershire, North Somerset, Plymouth, Poole, Somerset, Swindon and Wiltshire. Less than 0.001Mt was reported as WPA not codeable but arising from the South West.
- West Midlands 0.098Mt - the largest contributors were Birmingham City 0.037Mt, Warwickshire 0.024Mt and Staffordshire 0.012Mt, with others including, Coventry, Dudley, Sandwell, Shropshire, Solihull, Stoke-on-Trent, Telford & Wrekin, Walsall, Wolverhampton and Worcestershire. A total of 0.022Mt was reported as WPA not codeable but arising from the West Midlands.
- Yorks & Humber 0.005Mt – WPAs included Barnsley, Bradford City, Calderdale, Doncaster, East Riding of Yorkshire, Kingston Upon Hull, Leeds, North Lincolnshire, North Yorkshire, North-East Lincolnshire, Rotherham, Sheffield and York. A total of 0.002Mt was reported as

WPA not codeable but arising from South Yorkshire (56%) and Yorks & Humber (44%).

133. Small amounts of waste were also reported as being imported from outside of England with <0.001Mt from Scotland and 0.001Mt from Wales. In addition <0.001Mt was also reported as being imported from outside of the UK.
134. Of all waste imported into the Plan area CD&E wastes accounted for 0.994Mt (EWC Chapter 17 wastes and EWC 19 & 20 minerals, soils, sand and stones) with disposal to non-hazardous landfill (including SNRHW) being the main end fate (71%), followed by inert recovery (19%) with the remainder being otherwise managed (soil treatment, inert recycling, other forms of treatment and inert landfill). The largest contributors of inert waste disposed to non-hazardous landfill (including SNRHW) included Ealing 0.441Mt, Hertfordshire 0.116Mt, Brent 0.034Mt, South East (not codeable) 0.042Mt, Bedford 0.010Mt and Warwickshire 0.010Mt.

Waste exported to other WPAs

135. In total 0.782Mt of waste was reported as being removed from removed from the Plan area (originating from Cambridgeshire and Peterborough) for management at other WPAs. Of this 0.244Mt was attributed to intermediate facilities, leaving 0.539Mt of waste exported to other WPAs for management (including disposal). The majority of waste exported for management was received at facilities for preparing for re-use and recycling (79%), for other recovery and treatment (15%) or disposed of to non-hazardous landfill (including SNRHW) (6%).
136. Waste arisings from Cambridgeshire and Peterborough exported to other WPAs for management (including disposal) by region and WPA include:
- East Midlands 0.120Mt – the majority of waste was removed to Lincolnshire 0.060Mt, Leicester 0.031Mt and Northamptonshire 0.018Mt with others including Derbyshire, Nottingham, Nottinghamshire and Rutland.
 - East of England 0.084Mt – the majority of waste was removed to Norfolk 0.033Mt, and Suffolk 0.023Mt, with others including Bedford, Central Bedfordshire, Essex, Luton and Hertfordshire. A total of 0.009Mt was reported as WPA not codeable but removed to WPAs within the East of England.
 - London 0.006Mt – WPAs included Barking & Dagenham, Enfield, Havering and Newham. Less than 0.001Mt was reported as WPA not codeable but removed to WPAs within London.
 - North East 0.003Mt – the majority of waste was reported as WPA not codeable North East however small amounts were recorded as removed to Hartlepool, Middlesbrough, Redcar & Cleveland, Stockton-on-Tees and Sunderland.

- North West 0.010Mt – around half was reported as WPA not codeable North West however small amounts were recorded as removed to Bolton, Bury, Cheshire, Cumbria, Lancashire, Liverpool, Manchester, Stockport, Tameside and Wigan.
 - South East 0.051Mt – the majority of waste was removed to Kent 0.017Mt, with others including Berkshire, Brighton & Hove, East Sussex, Hampshire, Milton Keynes, Southampton, Surrey and West Sussex. A total of 0.028Mt was reported as WPA not codeable but removed to WPAs within the South East.
 - South West 0.010Mt – WPAs included Bristol, Devon, Dorset, Gloucestershire, Plymouth and Wiltshire.
 - West Midlands 0.042Mt – a total of 0.018Mt was reported as WPA not codeable West Midlands however small amounts were recorded as removed to Wolverhampton, with others including Birmingham City, Coventry, Dudley, Sandwell, Shropshire, Solihull, Staffordshire, Stoke-on-Trent, Walsall, Warwickshire and Worcestershire.
 - Yorks & Humber 0.049Mt – the majority of waste (0.042Mt) was reported as WPA not codeable Yorks & Humber however small amounts were recorded as removed to Barnsley, Doncaster, East Riding of Yorkshire, Kingston Upon Hull, Leeds, North-East Lincolnshire, Rotherham, Sheffield and York.
137. A total of 0.122Mt was reported as being exported outside of the UK, all for some form of processing for re-use or recycling. A total of 0.042Mt was exported to Wales with the majority for physical treatment (wood waste) and car breakers / ELVs. A small amount was also exported to Scotland (<0.001Mt).
138. Removal via intermediate facilities totalled 0.244Mt with the majority exported to Northamptonshire 0.026Mt, Lincolnshire 0.025Mt, Bedfordshire (combined authorities) 0.010Mt and Suffolk 0.010Mt, with others including Barking & Dagenham, Birmingham City, Brent, Buckinghamshire, County Durham, Coventry, Cumbria, Derbyshire, Doncaster, East Riding of Yorkshire, Enfield, Essex, Flintshire, Hampshire, Hertfordshire, Kent, Kirklees, Lancashire, Leeds, Leicestershire, Manchester, Milton Keynes, Norfolk, North Yorkshire, Nottingham, Nottinghamshire, Oxfordshire, Rutland, Slough, Solihull, Staffordshire, Stockport, Stoke-on-Trent, Wakefield, Walsall, Warrington, Warwickshire, Wrexham and York as well as Scotland 0.003Mt and outside of the UK 0.046Mt. A total of 0.043Mt was reported as WPA not codeable with the majority attributed to East of England 0.030Mt, with other regions including London, North West, West Midlands and Yorks & Humber. Selecting the received to option for each WPA in the WDI database did not produce correlating results and so it is difficult to determine with confidence the end fate of the exported wastes received at intermediate facilities.

139. Of waste exported from Cambridgeshire and Peterborough for management (including disposal) CD&E wastes accounted for 0.042Mt (EWC Chapter 17 wastes and EWC 19 & 20 minerals, soils, sand and stones), the majority of which was re-used or recycled.

Wider waste management needs – London’s waste

140. The Draft London Plan, November 2017 (Table 9.3 and paragraphs 9.8.1 – 9.8.2) reports that in 2015 18.9Mt of waste was produced, of which 11.4Mt was exported; around 5Mt (49%) of this went to the East of England and 4.2Mt (42%) to the South East. Most of this waste was CD&E waste. Of waste received into the East of England 2.9Mt was disposed of to landfill. Although the Draft London Plan is not an adopted plan this summary provides a useful and consistent basis from which to project future needs on. London produced 8.100Mt of household and C&I waste in 2015, of which 3.449Mt was exported to other WPAs¹⁴.
141. The adopted London Plan includes the intent to achieve greater net self-sufficiency in London (refer London Plan Policies 5.16 - 5.19). The adopted London Plan includes targets to manage as much of London’s waste within London as practicable, work towards managing the equivalent of 100% of London’s waste within London by 2026, zero biodegradable or recyclable waste sent to landfill by 2026 and the re-use and recycling of 95% of CD&E waste by 2020. It also seeks to reduce the proportion of household and C&I waste exported from the capital over time and to work with neighbouring authorities to co-ordinate strategic waste management across the greater South East of England.
142. In line with the NPPW requirement to consider the need for additional waste management capacity of more than local significance, the MWLP looks to make provision for a declining amount of imported household and C&I waste (from London) to be landfilled in Cambridgeshire and Peterborough. It is expected that London’s exports of waste to Cambridgeshire and Peterborough for disposal to landfill will gradually decline in line with the London Plan.
143. The adopted London Plan sets out projected household and C&I waste arisings up to 2036 in Table 5.2, with Table 5.3 apportioning waste to be managed by London boroughs. Table 5.4 identifies non-apportioned waste, which is to be exported. It was estimated that 1.948Mt of waste was to be exported from London in 2016, decreasing to 1.19Mt in 2021 and zero by 2026. The Draft London Plan (Table 9.3) sets out updated figures of: 3.449Mt in 2015, 1.725 in 2021 and zero in 2026.

¹⁴ Refer Table 2-6 https://www.london.gov.uk/sites/default/files/task_3_-_strategic_waste_data.pdf

144. The London Plan does not set out how much of this is anticipated to be sent for disposal to landfill. No figures are identified for CD&E or hazardous wastes. However it is recognised that the majority of hazardous waste is currently sent to landfill, mostly within the South East and East of England regions.
145. The MWLP will need to reflect this transition as London adjusts to greater self-sufficiency and reduces its landfill demands on other WPAs. This will be done by setting out, in the MWLP, what is considered to be an appropriate provision to be made for disposal of household and C&I waste to non-hazardous landfill (including SNRHW) over the plan period.
146. London WPAs were contacted as part of the strategic waste movements survey and asked to provide information regarding planned future waste imports from London to Cambridgeshire and Peterborough over the plan period, as well as identify any strategic matters as per the DtC. The outcome of which indicated that future imports from London WPAs requiring disposal of household and C&I waste to non-hazardous landfill (including SNRHW) are anticipated to reflect that set out in the adopted London Plan, however it was noted that the Draft London Plan was recently published for consultation.
147. In line with the most recent information available regarding London's exports, data for 2015 was extracted from the WDI for waste received at facilities within the Plan area. A total of 0.337Mt was reported for all wastes received from London's waste. The majority (0.230Mt or 68%) of waste received was CD&E waste with most of this disposed of to inert landfill (0.199Mt) or non-hazardous landfill (0.029Mt) and smaller amounts subject to physical treatment and inert recovery. Household, industrial and commercial waste reported as received at non-hazardous landfill (including SNRHW) sites within Cambridgeshire and Peterborough in 2015 accounted for around 0.079Mt (or just over 2%) of the total household and C&I waste exported).
148. Subsequent years (2016 and 2017) report totals of 0.112Mt and 0.157Mt, significantly greater than 2015. Interestingly, the majority of this was recorded as EWC 191212 (other wastes, including mixtures of materials, from mechanical treatment of wastes other than those mentioned in 19 12 11), this means that the waste has undergone some form of sorting and/or early stage treatment prior to landfill however this could simply be waste received at an intermediate (transfer) facility, sorted or bailed and then re-categorised as secondary waste before being sent on for disposal. It is highly likely that much of this could be further treated to maximise resource recovery prior to disposal, further reducing the quantity of waste exported for disposal. Comparable data for exports from London waste authorities for 2016 and 2017 is not available.

149. Rates for non-hazardous and non-hazardous (SNRHW) landfill were determined by identifying the amount of waste recorded as being disposed of at facilities identified (by permit type) as non-hazardous and non-hazardous (SNRHW) landfill. Waste recorded at the Dogsthorpe and Eye North Eastern landfill sites were attributed to the correct facility type to address an anomaly identified in the WDI. A three-year average (2015 to 2017) has been applied to determine the future proportion of non-hazardous (95%) and non-hazardous (SNRHW) (5%) landfill capacity required to accommodate such waste.
150. Overall waste management rates for London's waste received into Cambridgeshire and Peterborough (for 2015) include: preparing for reuse and recycling (including biological treatment, metal recycling and ELVs) 8.6%; other recovery (physical-chemical treatment) 0.1%; inert landfill/recovery 59%; and non-hazardous landfill (including SNRHW) 32.3%.
151. As previously noted, in 2015 London exported 3.449Mt of household and C&I waste, of this 0.079Mt was disposed of at non-hazardous landfill (including SNRHW) sites within Cambridgeshire and Peterborough; accounting for just over 2% of London's non-apportioned household and C&I waste for export. This percentage will be applied to projected exports of non-apportioned household and C&I waste (identified in Table 5.4 of the adopted London Plan) in order to account for waste received to non-hazardous landfill (including SNRHW) sites within Cambridgeshire and Peterborough (from London) assumed to decrease to zero by 2026, as set out in the table and illustrated in the graph below. This approach provides consistency with the most up-to-date information available from the London waste authorities regarding exports.
152. It should be acknowledged that some residual wastes arising as outputs from waste treatment methods are likely to require disposal to landfill, meaning that Cambridgeshire and Peterborough may continue to dispose of London's waste, in addition to its own waste. However, at this stage no information is available on the quantum of residues arising from London that may require disposal to landfill. Based on this data, and in lieu of more specific information regarding anticipated management methods and destination of exports from London, **over the period 2016 to 2036 a total of 0.417Mt of non-hazardous (including SNRHW) landfill void space is needed to accommodate London's non-apportioned household and C&I waste for export.** Application of the three-year average to determine total quantities forecast to be received at non-hazardous and non-hazardous (SNRHW) landfill sites (within the Plan area) produces figures of 0.396Mt and 0.021Mt respectively over the plan period.

Table 10: London’s non-apportioned household and C&I waste to be exported for disposal to non-hazardous landfill (including SNRHW) in Cambridgeshire and Peterborough, 2015 to 2026 onwards (million tonnes)

	2015	2021	2026 onwards
London’s non-apportioned household and C&I waste for export	3.449	1.725	0
London’s household and C&I waste for disposal to non-hazardous (including SNRHW) landfill within Cambridgeshire and Peterborough	0.079	0.040	0
<i>Non-hazardous landfill</i>	<i>0.075</i>	<i>0.038</i>	<i>0</i>
<i>Non-hazardous (SNRHW) landfill</i>	<i>0.004</i>	<i>0.002</i>	<i>0</i>

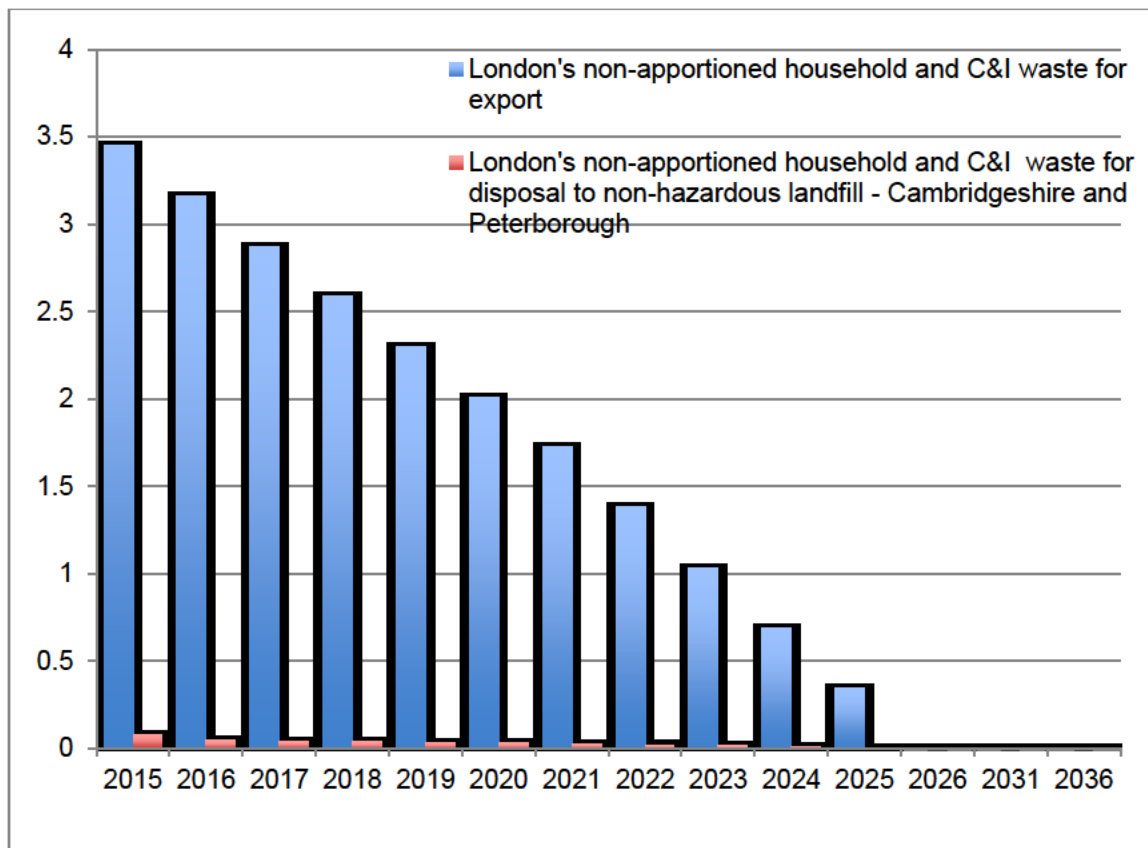


Figure 1: London’s non-apportioned household and C&I waste to be exported for disposal to non-hazardous (including SNRHW) landfill in Cambridgeshire and Peterborough, 2015 to 2026 onwards (million tonnes)

Identification of strategic movements and the Duty to Cooperate

153. A survey of WPAs was undertaken¹⁵ in line with the DtC regarding strategic waste movements. Movements were identified using the WDI 2016 and local authority contracts and records. Waste movements for general consultation were defined as per the EoE WTAB 2014 agreed thresholds, which include: non-hazardous waste 2,500t, inert waste 5,000t and hazardous waste 100t. These figures were used as a starting point¹⁶ for deciding which receiving authorities should be examined regarding strategic waste movements, as per the EoE method.
154. Strategic movements were then identified as a sub-set, with thresholds defined relative to Cambridgeshire and Peterborough, including any movement (i.e. import or export) of over 10,000t from an individual WPA to an individual waste management site, the exception being hazardous waste for which the threshold was 500t and waste exported from London authorities for disposal. By refining the waste movements dataset a more focussed view can be taken regarding strategic movements and identification of potential DtC matters. The reasoning for the 10,000t threshold is that movements below this level would seem to indicate once-off or ad-hoc arrangements which are by their nature not strategic, or are smaller quantities that may be able to be accommodated at another facility. Hazardous waste arisings and movements tend to be of a reduced scale when compared with other waste streams and so a strategic threshold is lower, in addition facilities for the management of hazardous waste tend to involve more specialised processes and as such have a much wider catchment area.
155. Over a third of all waste imported (into Cambridgeshire and Peterborough) originated from London (0.678Mt) with the majority being disposed of to inert landfill, particularly from Ealing (0.451Mt inert fill). All exports of municipal and C&I waste from London authorities for disposal to landfill were captured (and totalled per WPA) as the London Plan makes a strong commitment to reducing such movements. In addition the limited void space for non-hazardous landfill (including SNRHW) places an increased emphasis on such movements.
156. The following matters are typically considered to be of a strategic¹⁷ nature (of relevant to waste planning) that could potentially affect another authority and therefore could form a DtC matter: indicative waste management capacity

¹⁵ The DtC survey was undertaken in early 2017 to complement preparation of the Initial Draft MWLP and Waste Needs Assessment documents for consultation.

¹⁶ When taken in context of the Plan area total waste arisings it can be seen that the EoE thresholds capture less than >0.5% of waste arisings for the waste streams. In addition these thresholds do not consider specific facilities or sites.

¹⁷ It is for the authorities of Cambridgeshire and Peterborough to determine what is a strategic matter (in line with Zurich Assurance Ltd v Winchester CC & South Downs NPA 2014 that how the authority goes about deciding what is a strategic matter is a matter for their judgement).

needs, the spatial strategy for waste development (particularly non-hazardous disposal to landfill), and the proposed allocations/designations for waste development. It is only where the movement of waste is of a particularly large volume or of a specialised nature (e.g. hazardous or radioactive waste) that this could be considered a strategic issue and therefore become relevant to the identified DtC matters.

157. Following identification of waste movements, relevant WPAs were surveyed, the purpose of which was to: confirm the general scale of movements; gain an understanding of what other WPAs considered as strategic movements; identify any DtC matters; and identify if there were any planning restrictions or other consideration regarding the continuation of movements.
158. Authorities that responded to the DtC survey regarding waste movements included: Barnet, North London Waste Authorities, Bedford Borough and Central Bedfordshire, Bexley, Bristol City, Buckinghamshire, Cheshire East, Cheshire West and Chester, Devon, Dorset, East Riding of Yorkshire, East Sussex, Essex, Greenwich, Halton Knowsley Liverpool Sefton St.Helens and Wirral, Hampshire Portsmouth and Southampton, Hertfordshire, Kensington and Chelsea, Kent, Kingston upon Hull, Kirklees, Lambeth, Leicestershire, Lincolnshire, Greater Manchester authorities (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford and Wigan), Medway, Norfolk, North East Lincolnshire, North Lincolnshire, North Yorkshire, Northamptonshire, Nottinghamshire, Oxfordshire, Rotherham, Rutland, Solihull, Staffordshire, Surrey, Telford and Wrekin, Wakefield, Wandsworth, Warwickshire, West Sussex, Westminster City, Wolverhampton and Worcestershire.
159. Overall, responses received agreed with the use of the EoE thresholds as well as the occurrence and quantum of waste movements (as identified from the WDI 2016). Some variance in data returned from the WDI was noted, this may be as a result of the way that data was reported and queried (e.g. received to / removed from) particularly for waste processed through intermediate facilities, also it was noted that figures for some WPAs working jointly were not totalled but addressed separately. Overall the general the scale of movements was reflected and agreed upon.
160. The following responses were of note: that existing landfill capacity should be safeguarded with regards to landfill diversion targets and planning for new infrastructure higher up the hierarchy (residual waste treatment) so that landfill sites are only used for specialist waste and non-recoverable and non-recyclable waste; that the plan should include a policy enabling development of hazardous waste facilities in appropriate locations; and that hazardous waste was acknowledged to move greater distances (than non-hazardous waste) across administrative boundaries, due to commercial contracts and economies of scale associated with waste treatment and transportation costs. It was also acknowledged that additional landfill capacity was unlikely

to be planned for, apart from at existing sites as extensions, and so this places increased pressure on existing landfill capacity and meant that current movements would be likely to continue until such time as capacity comes online to divert waste from landfill. Cambridgeshire and Peterborough agree, in principle, with all of the above points raised.

161. Potential strategic matters that were raised related to the availability of non-hazardous landfill (including SNRHW) capacity within the Plan area as well as hazardous waste and LLW disposal capacity associated with the East Northants Resource Management Facility (ENRMF) that has a planning permission end date of 2026.
162. No DtC issues or general planning policy considerations that would affect movements over the plan period were identified, however it was noted that, in line with national policy, WPAs are seeking to achieve net self-sufficiency and so movements may reduce as treatment capacity increases (however some movements will still occur due to commercial contracts and operational arrangements). It was noted that some sites have planning permission end dates that expire before the end of the plan period, including inert fill sites associated with restoration of mineral extraction sites and the ENRMF in Northamptonshire. Cambridgeshire and Peterborough will continue to work with relevant authorities in relation to waste movements and any strategic waste planning matters as appropriate. It is important to note that commercial contracts are largely outside the WPAs remit, however the Councils are committed to planning positively and work with industry to develop the additional capacity to address the Plan areas future needs, and wider needs as appropriate.

Waste management capacity

Estimated existing capacity

163. There are many existing waste sites operating within the Plan area that already contribute towards supporting sustainable communities and meeting future needs. The majority of these facilities are expected to continue to operate throughout the plan period. The estimated existing waste management capacity is set out in the tables below and is made up from a variety of facilities located throughout the Plan area. Details of waste commitments are set out in Appendix 1.
164. The existing capacity was determined by collating information from several existing sources including council planning application and permission records, operator returns and reports, WDI datasets (2013 to 2017), other EA datasets (including incinerator returns 2013 to 2017, waste licence and

permit registers and the waste infrastructure inventory 2010) and officer estimates¹⁸ where necessary. Where available, returns for individual sites were collated from EA datasets (i.e. WDI and incinerator returns) for the period 2013 to 2017. The highest capacity over this five-year period has been taken to be the estimated existing capacity for the site (figures rounded to nearest 100 tonnes) and applied over the remaining plan period (2018 to 2036), unless other available information suggested otherwise (e.g. grant of recent planning permission, planned closure or rationalisation of operator assets). Capacity data applied for the start of the plan period (2016 and 2017) was taken from the WDI.

Table 11: Estimated existing non-hazardous waste management capacity (million tonnes per annum)

Waste hierarchy level	Waste stream	Waste management facility	Estimated capacity
Preparing for reuse and recycling	Mixed	Materials recycling	0.409
	Mixed	Metal recycling	0.060
	Mixed	End of life vehicle recycling	0.266
	Mixed	Compost	0.349
	Mixed	Mechanical biological treatment	0.170
	CD&E	Inert recycling	0.488
	Hazardous	Hazardous materials recycling and recovery	0.011
Other recovery	Mixed	Thermal treatment (energy from waste)	0.081
	Mixed	Anaerobic digestion (with energy recovery)	0.075
	Mixed	Other treatment	0.135
	CD&E	Soil treatment	0.308
	Hazardous	Physical/chemical treatment	0.039
	Hazardous	Incineration/thermal treatment with energy recovery	0.013

Note: Where facilities have been identified as transfer stations that also include materials recycling processes 25% of their capacity has been assumed to contribute towards capacity for materials recycling.

165. A small number of sites have recently been granted planning permission but are not yet operational, however implementation is considered likely, the estimated capacity for these sites has been taken as that stated in the planning permission and/or associated documentation. The timeframe for such facilities to be made operational has been estimated from the planning permission and/or associated documentation as well as information from Council officers. Capacity associated with such sites has been taken into

¹⁸ Officer estimates of capacity are derived from previous experience with the individual site and/or similar sites as well as pers. comm. with the operator.

consideration in the determination of future needs however is identified separately for clarity, summarised in the table below.

Table 12: Permitted waste management capacity - not operational as of June 2019

Site & planning permission reference	Facility type	Waste type	Permitted throughput (million tonnes per annum)	Estimated timeframe to commence operations
Preparing for re-use and recycling				
Pasture House Farm 15/01839/MMFUL	Inert recycling	CD&E	0.190	Within 5 years
Other recovery - treatment and energy recovery processes				
West Fen Farm 2001/18/CW	AD	C&I	0.035 (food waste)	Within 5 years
PREL Energy Park 08/01081/ELE	EfW	C&I	0.540	Within 5 years
Woodford Waste Management H/5002/18/CW	EfW (wood waste only)	Wood waste	0.048	Within 5 years

166. In addition, there are several sites that despite having planning permission have not been included for the purpose of determining future needs. This is because implementation is considered uncertain, however it is noted that these sites could add another 0.120Mtpa recycling, 0.024Mtpa composting, 0.020Mtpa AD and 0.049Mtpa thermal treatment capacity were the facilities to be brought on-line during the plan period.
167. Information regarding planned closures has been incorporated in order to inform the capacity over the plan period and identification of future needs (i.e. fluctuations in capacity gaps), where no information on planned closures was available the planning permission end date has been applied.
168. It is important to note that capacity for sites that do not have planning permission has not been included. In addition capacity of exempt sites has also not been included. The capacity estimates only capture the capacity of sites with extant planning permission.
169. Some sites have reported reduced (or zero) throughput in recent years, this is generally associated with smaller metal recycling and End of Life Vehicle facilities. However this capacity is assumed to be available to be utilised or brought online for future years and has been included where considered appropriate.

Table 13: Estimated void space, 2016 to 2036 (million tonnes)

Waste hierarchy level	Waste stream	Waste management facility	Estimated void space
Other recovery	CD&E	Inert recovery and beneficial deposit of waste to land associated with restoration of mineral extraction sites	13.954
Disposal	CD&E	Inert landfill	1.932
	Mixed	Non-hazardous landfill (including SNRHW)	12.466
		Non-hazardous landfill	8.525
		Non-hazardous (SNRHW) landfill	3.940

170. Some landfill sites are permitted for disposal of more than one category of waste (i.e. non-hazardous / SNRHW / inert) as they have separate cells within the same site. Where this is the case the void space for the different categories has been separated using information from planning permissions, EA permits, information from operators and officer estimates.
171. The deposit of inert waste to land may be classified as a recovery operation. The Methley Quarry judgement (November 2015)¹⁹ may impact on future inert recovery rates. This judgement has seen the tests for whether a scheme can be classified as disposal or recovery changed.²⁰ There are now two recovery tests (previously five) based on: 1) if there is a statutory obligation to undertake the work; and 2) if it would be financially viable for the scheme to be completed using non-wastes, the aim is to demonstrate that waste is being used as a substitute for non-waste materials. Only one of the tests needs to be met, and the second test need not be considered if the first is demonstrated. This first test is the key for most future recovery decisions as an operator will need to show that a regulator, e.g. a planning authority, has imposed a legal requirement for the restoration of a site to be completed in accordance with an approved restoration plan. Such decisions may in future see a decrease in applications for inert recovery not associated with a restoration plan of an active/recent minerals extraction site (i.e. not historic sites), or such proposals classified as inert landfill (disposal).
172. In order to align with this current direction, inert recovery includes: i) sites currently permitted for inert recovery and ii) sites where the deposit of inert waste to land is associated with the restoration of a mineral extraction site. Some such sites (i.e. those where the deposit of inert waste to land is associated with the restoration of a mineral extraction site) are currently permitted as inert landfill. Capacity (estimated void space) associated with such sites has been separated from inert landfill and included with inert recovery sites as “beneficial deposit of waste to land associated with

¹⁹ <http://www.bailii.org/ew/cases/EWCA/Civ/2015/1149.html>

²⁰ EA guidance on waste recovery (updated October 2016) <https://www.gov.uk/guidance/waste-recovery-plans-and-permits>

restoration of mineral extraction sites”. Almost 90% of the permitted inert landfill void space falls into this category. This approach has been applied in order to provide a more consistent and transparent basis over the plan period.

173. The estimated capacity fluctuates over the plan period in response to planned closures and expiry of planning permission. Information collated on existing capacity and void space fed into determining future needs (the capacity gap) over the plan period.

Future needs

174. In order to ascertain future needs the capacity gap must be identified, this is the difference between the existing estimated capacity and the management capacity resulting from forecasts. The future needs represent the capacity required to manage waste appropriately to achieve relevant targets and deliver net self-sufficiency over the plan period. These should be taken as indicative figures.
175. The indicative future needs (i.e. that needed in addition to the existing estimated capacity) over the plan period are set out in the tables below.

Table 14: Summary of waste arisings and future needs 2016 to 2036 – non-hazardous waste management

			Indicative total waste management capacity needs					
			2016	2017	2021	2026	2031	2036
Non-hazardous waste management – Recovery (million tonnes per annum)								
Preparing for re-use and recycling	Materials recycling (Mixed - Municipal, C&I)	Forecast arisings	0.613	0.662	0.696	0.754	0.806	0.852
		Existing capacity	0.670	0.746	0.734	0.732	0.732	0.732
		Capacity gap	+0.056	+0.084	+0.038	-0.022	-0.074	-0.120
	Composting (Mixed - Municipal, C&I)	Forecast arisings	0.169	0.199	0.207	0.225	0.240	0.249
		Existing capacity	0.332	0.324	0.349	0.349	0.349	0.349
		Capacity gap	+0.163	+0.124	+0.142	+0.124	+0.109	+0.100
	Inert recycling (CD&E)	Forecast arisings	0.056	0.087	0.066	0.067	0.068	0.068
		Existing capacity	0.149	0.184	0.435 (0.190)	0.410 (0.190)	0.410 (0.190)	0.410 (0.190)
		Capacity gap	+0.093	+0.097	+0.370 (+0.560)	+0.343 (+0.533)	+0.342 (+0.532)	+0.342 (+0.532)
Other recovery	Treatment and energy recovery processes (Mixed - Municipal, C&I)	Forecast arisings	0.156	0.160	0.226	0.314	0.393	0.416
		Existing capacity	0.295	0.327	0.349 (0.035)	0.337 (0.575)	0.337 (0.575)	0.337 (0.575)
		Capacity gap	+0.139	+0.166	+0.124 (+0.159)	+0.023 (+0.598)	-0.057 (+0.518)	-0.080 (+0.495)
	Energy recovery (CD&E wood waste)	Forecast arisings	0.001	0.001	0.002	0.002	0.002	0.002
		Existing capacity	0	0	0	0 (0.048)	0 (0.048)	0 (0.048)
		Capacity gap	-0.001	-0.001	-0.002	-0.002 (+0.046)	-0.002 (+0.046)	-0.002 (+0.046)
	Soil treatment (CD&E)	Forecast arisings	0.084	0.112	0.095	0.097	0.099	0.099
		Existing capacity	0.147	0.278	0.315	0.315	0.315	0.315
		Capacity gap	+0.062	+0.166	+0.220	+0.217	+0.216	+0.216

Note: Treatment and energy recovery processes refers to AD, EfW and other physical/chemical treatment processes. Figures in brackets for existing capacity rows indicate permitted capacity that is not yet operational but is considered likely to come online and contribute towards the waste management capacity within the plan period. Figures in brackets for capacity gap rows indicate the adjusted capacity gap resulting from the before noted capacity (permitted but not operational) becoming operational.

Table 15: Summary of waste arisings and future needs up to 2036 – non-hazardous waste disposal (including SNRHW) and inert disposal/recovery

			Indicative waste management capacity needs (million tonnes per annum)						Total need (2016-2036)	Estimated void space (2016-2036)	Balance
			2016	2017	2021	2026	2031	2036			
Non-hazardous waste management – Deposit to land and disposal											
Other recovery	CD&E	Inert recovery	0.653	0.728	0.769	0.774	0.776	0.776	16.063	13.954	-2.109
Disposal	CD&E	Inert landfill	0.269	0.262	0.176	0.175	0.174	0.174	3.856	1.932	-1.924
	Mixed - Municipal, C&I	Non-hazardous landfill (including SNRHW)	0.581	0.537	0.602	0.532	0.467	0.476	11.187	12.466	+1.278
		<i>Non-hazardous landfill</i>	0.571	0.508	0.580	0.514	0.453	0.461	10.817	8.525	-2.291
		<i>Non-hazardous (SNRHW) landfill</i>	0.011	0.028	0.021	0.017	0.014	0.015	0.371	3.940	+3.569

176. Overall, the Plan area is relatively well placed in terms of net self-sufficiency for waste management, having sufficient capacity with regards to net self-sufficiency for: composting, inert recycling and soil treatment throughout the plan period; and preparing for re-use & recycling and treatment & other forms of recovery mid-way through the plan period. Recently permitted sites that are not yet operational (but where implementation is considered likely) will take up the required capacity for treatment & other forms of recovery resulting in a surplus; these sites are anticipated to be operational within the first half of the plan period. Implementation of these permissions will be monitored and reported through the Annual Monitoring Report to inform decision-making processes. There may be a capacity gap of around 0.120Mtpa by the end of the plan period for materials recycling however this would be dependent on the actual recycling capacity provided by sites undertaking transfer/treatment (estimated at 25% but potentially more, reducing the capacity gap). Sites where implementation is considered uncertain have not been included for the purpose of calculating future needs. Future needs for specific management methods vary when viewed separately (i.e. at individual WPA level).
177. There is a potential need for hazardous waste recycling capacity (0.018Mtpa in 2017 increasing to 0.026Mtpa by 2036). However, as previously acknowledged, such waste tends to be managed at a regional to national scale due to commercial contracts and economies of scale associated with waste treatment and transportation costs and that they are generated in significantly lower quantities. As such it is not possible for every WPA to achieve self-sufficiency with respect to hazardous wastes. The Plan's policies will enable proposals for such development to come forward.

Landfill void space

178. The non-hazardous landfill (including SNRHW) void space at the start of the plan period was estimated at 12.466Mt (non-hazardous 8.525Mt and non-hazardous (SNRHW) 3.940Mt). If waste management targets are achieved this is sufficient to accommodate the Plan area's disposal needs, estimated at a total of 11.187Mt (non-hazardous 10.817Mt and non-hazardous (SNRHW) 0.371Mt). In addition the amount of London's non-apportioned household and C&I waste to be exported for disposal to non-hazardous landfill (including SNRHW) is around 0.417Mt (non-hazardous 0.395Mt and non-hazardous (SNRHW) 0.021Mt) for the plan period. Taking both the Plan areas and that part of London's waste into account produces a total of 11.604Mt; leaving a very small surplus of around 0.862Mt void space. This does not account for disposal of residues arising from waste treatment processes that may, taking a conservative view, be around 0.196Mtpa (from waste arising from within the Plan area) by the end of the plan period.
179. If other WPAs fail to increase their waste management capacity, diverting waste from landfill, or if residues from treatment processes are not reused, recycled or otherwise recovered there may be a future need for additional void space to accommodate this on-going need, this may also include residues from the treatment of waste from other authorities including London.

180. The ability of the Plan areas non-hazardous landfill (including SNRHW) sites to accommodate an on-going need regarding disposal of residues is uncertain due to limited data. Monitoring of disposal, including residue arisings, to non-hazardous landfill (including SNRHW) and remaining void space will be necessary in order to consider future options in the long term (i.e. towards the end of the plan period), address any on-going need for disposal and ensure that residues are managed appropriately.
181. The inert recovery and landfill void space at the start of the plan period (2016) was estimated at 13.954Mt and 1.932Mt respectively (15.886Mt combined). The majority of inert recovery void space is associated with the restoration of mineral extraction sites; as such the availability of void space is linked to timeframes for restoration works, with existing permissions expiring between 2018 and the end of the plan period. The forecast total need for inert recovery and landfill over the plan period (19.919Mt) can be accommodated by permitted void space (inert recovery and landfill) with the deficit (4.033Mt) accommodated at void space created as a result of permitted and future mineral extraction. As the Mineral Planning Authorities for the Plan area, there is a requirement to facilitate delivery of a steady and adequate supply of aggregates over the plan period (though, for example, identification of site-specific allocations). Extraction from these sites will create additional inert recovery (or landfill) void space as inert fill is used for infilling to re-profile land as part of restoration works. It is therefore assumed that there will be a continued need for inert fill to be directed towards mineral extraction sites to support restoration works throughout the plan period. However, no new inert landfill or recovery sites (not associated with restoration of mineral extraction sites) are required.
182. Sites proposed for allocation that form part of the Block Fen / Langwood Fen Master Plan area are likely to require inert fill to achieve the restoration outcomes. It is estimated that restoration of sites from this area will result in a need of around 7 million m³ (12Mt) over the Plan period, however this figure will vary dependant on landform and volume to waterbodies to be created. This example demonstrates the importance of diverting suitable CD&E waste from landfill in order to facilitate delivery of restoration outcomes.
183. Although sites within the plan area are permitted for non-hazardous (SNRHW) landfill, there are currently no permitted sites for standalone hazardous landfill within the Plan area. Hazardous waste for disposal (apart from SNRHWs) is currently exported for disposal. For the reasons outlined earlier regarding hazardous waste it is not possible for every WPA to achieve self-sufficiency with respect to hazardous wastes.

Conclusion

184. Waste arisings for Cambridgeshire and Peterborough totalled around 2.782Mtpa in 2017; this includes municipal, C&I, CD&E and hazardous waste. Forecasts indicate that waste arisings could increase to 3.163Mtpa by the end of the plan period (2036).
185. There is sufficient waste management capacity within Cambridgeshire and Peterborough (jointly) with respect to: composting, inert recycling and soil treatment throughout the plan period; and preparing for re-use & recycling and treatment & other forms of recovery mid-way through the plan period. It is considered that recently permitted sites that are not yet operational (but where implementation is likely) will come online in the first half of the plan period, taking up the required capacity for treatment & other forms of recovery. There may be a capacity gap of around 0.120Mtpa by the end of the plan period for materials recycling however this would be dependent on the actual recycling capacity provided by sites undertaking transfer/treatment (estimated at 25% but potentially more, reducing the capacity gap).
186. Although there is a shortfall in inert recovery and landfill void space this additional capacity can be accommodated by void space associated with restoration of mineral extraction sites. No new inert landfill or recovery sites (not associated with restoration of mineral extraction sites) are required over the plan period.
187. There is sufficient permitted void space to accommodate the Plan areas disposal needs and (some of) London's non-apportioned household and C&I waste to be exported for disposal to non-hazardous landfill (includes SNRHW). Monitoring of disposal to non-hazardous landfill (including residues) and remaining void space will be necessary to ensure that wastes are managed and any necessary capacity planned for appropriately.
188. There is a potential need for hazardous waste recycling and disposal capacity. As such waste tends to be managed at a regional to national scale and are generated in significantly lower quantities it is not possible for every WPA to achieve self-sufficiency.

Appendix 1: Waste management sites with extant planning permission

Table A1.1: Non-hazardous, inert and hazardous waste management sites

Waste Planning Authority	Site	Location / Address	Planning permission reference and end date (where relevant / available)
Material recycling facilities			
Cambridgeshire	Buckden Composting & Materials Recycling Facility	PE19 5UH	
Cambridgeshire	Lancaster Way	CB6 3NW	
Cambridgeshire	New Farm	Hemingford Abbots	H/1424/98
Cambridgeshire	Padnal Sidings	Ely Road, Prickwillow, Ely, CB7 5UJ	
Cambridgeshire	Station Farm MRF	Station Farm, Brampton Road, Buckden, PE19 5UH	
Cambridgeshire	Waterbeach Waste Management Park	Waterbeach, CB25 9PG	S/0014/15/CW
Cambridgeshire	Wimblington	Wimblington, March	F/2015/05/CW
Cambridgeshire	Alconbury Hill	Stangate Business Park	
Cambridgeshire	Cambridge Transfer Station	Cowley Road, Cambridge, CB4 0DN	C/05007/13/CW
Cambridgeshire	Cambridge Waste Management Centre	Cowley Road, Cambridge, CB4 0DN	C/05044/12/CW
Cambridgeshire	Chapsmith Services Recycling Centre	PE28 3LJ	EA BP3495LD (100557)
Cambridgeshire	Cottenham Skips Limited	Cottenham	
Cambridgeshire	March Waste Recycling And Transfer Station		
Cambridgeshire	Sherwood Park Ltd	Sherwood Park Ltd	
Cambridgeshire	St Neots Transfer & Recycling Fac	6 & 7 Marston Rd, St Neots, PE19 2HB	
Cambridgeshire	Whittlesey Transfer Station	Aaron Road Industrial Estate, Station Road, Whittlesey, PE7 2EX	
Cambridgeshire	Wisbech Waste Transfer Station	Algores Way, Wisbech PE13 2TQ	
Cambridgeshire	Woodford Waste Management	Warboys, Cambs	H/5014/16/CW H/5012/15/CW
Cambridgeshire	Computer Displays U K Ltd	Unit 5 Lakeside Business Units, Block Fen, Mepal, Ely, CB6	

Waste Planning Authority	Site	Location / Address	Planning permission reference and end date (where relevant / available)
		2AY,	
Cambridgeshire	St Ives Resource Recovery Facility	PE27 3LS	
Peterborough	Dogsthorpe Landfill Site♦	Welland Road, Dogsthorpe	12/01236/MMFUL
Peterborough	Eye Recycling facility	Eyebury Road, Eye, PE6 7UQ	14/01307/MMFUL 10/00650/WCMM
Inert recycling			
Cambridgeshire	Chesterton Sidings	Chesterton junction, land of Cowely Road, Cambridge CB4 0JL	S/0876/15/CW
Cambridgeshire	Chesterton Sidings	Frimstone Ltd, Chesterton Sidings, Cowley Road, Cambridge	S/0245/17/CM
Cambridgeshire	County Highways Depot, Dullingham	Dullingham, PE15 0NE	E/00998/94/CC
Cambridgeshire	County Highways Depot, Stanton Way	Stanton Way, Huntingdon PE29 6PY	
Cambridgeshire	County Highways Depot, Whittlesford	South Highways Division, Station Road, Whittlesford, CB22 4NL	S/00014/80/CC S01117/03/CC
Cambridgeshire	County Highways Depot, Witchford	Witchford Road, Ely, CB6 3NR	E/00101/91/CC E/00198/80/CC
Cambridgeshire	Dawson Recycling Facility	CB24 4QJ	
Cambridgeshire	Dockerill (Plant Hire) Ltd	Babraham, CB22 3AX	
Cambridgeshire	East Anglian Resources Ltd	Yard 1, Benwick, Rd PE7 2HD	
Cambridgeshire	Eaton Tractors - Pitt Farm	Pitt Farm, Little Paxton, St Neots, PE19 6HD	H/05007/04/CW
Cambridgeshire	Kennett Soil And Aggregate Treatment Facility	Turnpike Road, Kennett, Suffolk, IP28 8LE	
Cambridgeshire	March (Former Whitemoor Marshalling Yard)	Hundred Road, March	F/2006/09/CW
Cambridgeshire	Mandley Brothers	First Furlong Farm, First Furlong Drove, Chatteris, PE16 6TA	F/2013/17/CW
Cambridgeshire	P J Thory Ltd	Coates PE7 2DD	
Cambridgeshire	St Ives Aggregates Facility	PE27 4LG	

Waste Planning Authority	Site	Location / Address	Planning permission reference and end date (where relevant / available)
Cambridgeshire	Wisbech		F/02012/04/CW
Peterborough	Apex	Welland Road Dogsthorpe	15/01214/MMFUL
Peterborough	Apex Plant Hire Ltd	Construction House, Fengate, PE1 5PE	12/00206/MMFUL 10/01276/FUL
Peterborough	Dogsthorpe Landfill Site	Welland Road, Dogsthorpe, PE1 3TD	14/01542/MMFUL
Peterborough	Eyebury Quarry	Eyebury Road, Eye, Peterborough, PE6 7UQ	10/00650/WCMM
Peterborough	M D N Concrete	Station Road, Thorney, PE6 0QE	05/00985/MMFUL 09/00814/MMFUL 98/00925/MMFUL 08/01190/MMFUL
Peterborough	Pasture House Farm [^]	The Causeway, Thorney, PE6 0QL	15/01839/MMFUL
Peterborough	World Of Tyres	Vicarage Farm Road, Fengate, PE1 5TP	17/00394/MMFUL 15/00035/MMFUL
Metal recycling, End of Life Vehicles and car breakers			
Cambridgeshire	Aldridge Motor Salvage & Recovery	Foxlands, Long Drove, Cottenham, CB4 4RL,	
Cambridgeshire	Rampton Car Breakers	2 Cuckoo Lane, Rampton, CB4 8QH,	
Cambridgeshire	Amaks Motors Limited	Wisbech Business Park, Wisbech, PE13 2RJ,	
Cambridgeshire	Ashwell & Morden Station Goods Yard	Station Road, Odsey, Baldock, Hertfordshire, SG7 5RT	
Cambridgeshire	Autos & Son	The Homestead, Newmarket Road, Bottisham, CB5 9BD,	
Cambridgeshire	Autoshells	Ashley Lodge, Conquest Drove, Farcet, PE7 3DH	
Cambridgeshire	Home Farm Alconbury	Home Farm, Alconbury, Huntingdon, PE17 5DL,	
Cambridgeshire	Barnwell Junction Railway Sidings	Barnwell Junction Railway Sidings, Swanns Road, Cambridge, CB5 8JZ,	
Cambridgeshire	Brook Farm	Brook Road, Bassingbourn,	

Waste Planning Authority	Site	Location / Address	Planning permission reference and end date (where relevant / available)
		Hertfordshire, SG8 5NP	
Cambridgeshire	Burton's Car Disposal	Burton's Car Disposal, Cockbrook Lane, Old Weston, PE28 5LU	
Cambridgeshire	Molesworth Village Breakers	The Hangers, Brookside, Molesworth, PE28 0QH	
Cambridgeshire	Cambridge Parts Centre	32, Cave Industrial Estate, Fen Road, Cambridge, CB4 1UN	
Cambridgeshire	Cambridgeshire Salvage	2b Doddington Road, Chatteris, PE16 6UA,	
Cambridgeshire	Charlton Recycled Autoparts Ltd	Gravel Pit Hill, Thriplow, Duxford, SG8 7HZ	
Cambridgeshire	D M R Recycled Autoparts	Station Road, Wilbuton, CB6 3PZ	
Cambridgeshire	Ely Motorcycle Spares	Black Bank, Little Downham, Ely, CB6 2UB	
Cambridgeshire	Fenland Breakers	19-27 Commercial Road, March, PE15 8QP	
Cambridgeshire	G W Car Repairs, Angle Common Vehicle Dismantlers	Unit 1 Angle Common, Soham, Ely, CB7 5HX	
Cambridgeshire	Ramsey Breakers	Factory Bank, Ramsey, Huntingdon, Cambridgeshire, PE26 2RD,	
Cambridgeshire	Glebe Farm Exports	Glebe Farm, Green Lane, Upton, Huntingdon, PE28 5YE	
Cambridgeshire	Bluntisham	Station Yard, Bluntisham, Huntingdon, PE17 3PA	
Cambridgeshire	C F C Disposals	Roffco Works, Main Street, Christchurch, March, PE14 9LF	
Cambridgeshire	James Fuller & Son	51 Huntingdon Road, Chatteris, PE16 6ED	
Cambridgeshire	Lodge Farm	Lodge Farm, Knights End Road, Floods Ferry, March, PE15 0YN	

Waste Planning Authority	Site	Location / Address	Planning permission reference and end date (where relevant / available)
Cambridgeshire	Mayer Parry	111 Fordham Road, Snailwell, CB8 7ND	E/0830/91/CW E/3008/10/CW
Cambridgeshire	Queensferry Car Breakers Limited	2b Doddington Road	
Cambridgeshire	Rb Car Spares	674 Leverington Common, Leverington, Wisbech, PE13 5JN	
Cambridgeshire	Slate Hall Farm	Slate Hall Farm, Huntingdon Road, Lolworth, CB3 8HB	
Cambridgeshire	Wisbech	29 Oldfield Lane, Wisbech, PE13 2RJ	
Cambridgeshire	Glazewing, Port Of Wisbech	Dock Cottage, Crab Marsh, Port Of Wisbech, PE13 3JG	
Cambridgeshire	R M S	Bashir House, Station Road West, Whittlesford, CB2 4NL,	
Cambridgeshire	Leverington Common	Osborne Road, Wisbech,	
Cambridgeshire	Shelton Motors / M C Tractors	Factory Bank, Ramsey, PE26 2RD	
Cambridgeshire	The Foundry	The Foundry, Unit 2 Factory Bank, Ramsey, PE26 2RD	
Cambridgeshire	Smith's Scrap Metals	Hill View, Balsham Road, Linton, CB1 6LD	
Cambridgeshire	Staughton Moor	Vehicle Dismantlers Yard, Staughton Moor, Great Staughton, PE19 5BJ,	
Cambridgeshire	W Smith Scrap Metals	Hill View, Balsham Road, Linton, CB1 6LD	
Cambridgeshire	West Street	St.Ives	
Cambridgeshire	Porters Depot	29 Oldfield Lane, Wisbech, PE13 2RJ	
Peterborough	A S R Autobreakers	Warehouse B1, First Drove, Fengate, PE1 5BJ	
Peterborough	Oxney Road Storage Site / A T F	Peterborough Export Packers Ltd, Oxney Road, PE1 5YW	05/01909/MMFUL
Peterborough	Peterborough Auto Spares Limited	Unit B3 - B4, First Drove, Fengate, PE1	

Waste Planning Authority	Site	Location / Address	Planning permission reference and end date (where relevant / available)
		5BJ	
Peterborough	Sims Recycling Facility	Fourth Drove, Fengate, PE1 5UR	07/00736/MMFUL 08/00439/WCMM
Peterborough	Spriggs Reclaim Centre	Oxney Road, PE1 5YW	
Peterborough	Unit J	Unit J Oxney Road Industrial Estate, Oxney Road, PE1 5YN	
Peterborough	D K Salvage Company	Third Drove, Fengate, PE1 5YT	
Peterborough	Peterborough Metal Recycling Ltd	Oxney Road Metal Recycling Facility	
Peterborough	Universal Cars	38 Ivatt Way, Westwood, PE3 7PN	
Peterborough	Wryde Works	New Cut, Knarr Cross, Thorney, PE6 0TW	
Composting			
Cambridgeshire	Buckden	Station Farm, Brampton Road, Buckden, Huntingdon	H/05041/09/CW H/5020/03/CW H/1428/96/CW
Cambridgeshire	Bury Lane Farm Composting Facility	Bury Lane Farm, Ramsey Heights, Huntingdon, PE26 2RW	H/5016/11/CW
Cambridgeshire	Cambridge Recycling Centre	Ely Road, Waterbeach, CB5 9PG	
Cambridgeshire	Envar Composting	The Heath, Woodhurst, St Ives, PE28 3BS	H/5001/07/CW
Cambridgeshire	Fenton Manor Farm	Fenton PE28 2NS	H/5024/06/CW
Cambridgeshire	Hainey Farm	CB7 5TZ	
Cambridgeshire	Manor Farm	Doddington, PE15 0TN	
Cambridgeshire	Mettleham Transfer Station	Mettleham Farm Centre, Hasse Road, Soham, Ely, CB7 5UW	
Cambridgeshire	Rutland Stud Composting Facility	CB8 9RX	
Cambridgeshire	Waterbeach Waste Management Park	Waterbeach, Cambridge	S/0013/15/CW
Peterborough	Dogsthorpe Landfill Site (composting)	Welland Road, Dogsthorpe, PE1 3DT	10/00590/WCMM
Peterborough	Eye Landfill♦	Eyebury Road, Eye, PE6 7UQ	14/01307/MMFUL
Anaerobic digestion			
Cambridgeshire	Westry Anaerobic	Wisbech Road, Westry,	F/2008/14/CW

Waste Planning Authority	Site	Location / Address	Planning permission reference and end date (where relevant / available)
	Digestion Facility	March, PE15 0BA	
Cambridgeshire	West Fen Farm [^]	Whittlesey Road, March PE15 0AF	2001/18/CW
Peterborough	Dogsthorpe Landfill Site [♦]	Welland Road, Dogsthorpe	12/01236/MMFUL
Mechanical biological processing			
Cambridgeshire	Waterbeach Waste Management Park	Waterbeach, Cambridge	S/02438/06/CW
Chemical, physio-chemical and physical treatment sites			
Cambridgeshire	Alconbury Airfield	Bio-Bean Limited	H/5005/18/CW
Cambridgeshire	Buckden Effluent / Leachate Treatment Plant	Station Farm, Brampton Road, Buckden, Huntingdon, PE19 5UH	H/01010/87/CW
Cambridgeshire	Saxon Recycling Ltd	Saxton Brickworks, CB2 4WL	F/02007/13/CW
Energy from Waste facilities			
Cambridgeshire	Energy 10, Woodhatch Farm [♦]	Thrapston Road, Brampton PE28 4NJ	H/5019/12/CW
Cambridgeshire	Woodford Waste Management [^]	The Old Brickworks, Station Road, Warboys, Huntingdon PE28 2TX	H5002/18/CW
Peterborough	PREL Energy Park / Peterborough Green Energy Project [^]	Plot U13, Storey's Bar Rd, Fengate	08/01081/ELE
Peterborough	Peterborough Energy Recovery Facility	Energy From Waste Facility, Fourth Drove, Fengate, PE1 5UR	14/00069/WCMM
Soil treatment			
Cambridgeshire	Colne Fen Quarry	Chatteris Road, Earith, PE28 3DN	
Cambridgeshire	J F Jupp Utility Contractors Ltd	19c Longhill Road, March, PE15 0BL	
Cambridgeshire	Mead Construction, Liberty Barn	CB25 0LA	
Cambridgeshire	M S B Contracting Ltd	Thorney Road, Wisbech Fen, Guyhirn, PE13 4AE,	
Cambridgeshire	First Furlong Farm, Mandley Brothers	First Furlong Drove, Chatteris, PE16 6TA	F/2013/17/CW
Cambridgeshire	Mepal Soil and Aggregate Treatment Facility and Mepal Soil Washing Facility	CB6 2AY	

Waste Planning Authority	Site	Location / Address	Planning permission reference and end date (where relevant / available)
Cambridgeshire	Plantation Farm	CB8 7QJ	EA FB3338AG
Cambridgeshire	Sutton Recycling Facility	Former Mepal Airfield, Mepal Road, Sutton, CB6 2PZ	E/0714/98/CW E/3007/04/CW E/03016/07/CW
Cambridgeshire	Waterbeach Waste Management Park	Waterbeach, CB25 9PG	S/0014/15/CW
Peterborough	Oxney Road Industrial Estate	Oxney Road, PE1 5YW	14/00354/MMFUL
Hazardous waste management sites			
Cambridgeshire	Cambridge Pet Crematorium	A505 Main Road, Thriplow	S/1356/94/CW, S/00434/99/CW, S/00496/05/CW, S/00008/16/CW
Cambridgeshire	Addenbrooke's Hospital Incinerator	Hills Road, CB2 2QQ	EA WP3935SM
Cambridgeshire	Malary Oil Treatment Plant	Malary House, Brookfield Business Centre, Twentypence Road, Cottenham, CB24 8PS	EA BT2777IK
Cambridgeshire	Saxon Recycling Ltd, Lion Yard Site	Unit 4a Lion Works, Station Road, Whittlesford, CB2 4WL	S/00082/10/CW, EA 75009
Cambridgeshire	Hinghingbrooke Hospital	Huntingdon	H/00157/96/CW
Cambridgeshire	Personal Hygiene Services Ltd	Lancaster Way, Huntingdon	
Cambridgeshire	St Ives Transfer Station	Meadow Lane, St Ives	
Cambridgeshire	Woodford Recycling Services Ltd	Station Road, Warboys	H/5008/08/CW, H/05013/11/CW, H/05016/12/CW, H/5007/14/CW
Peterborough	Bourne Skip Hire & Recycling Limited	Unit 2 Vicarage Farm Road, PE1 5TP	

[^] Sites that are permitted but not operational taken into consideration in determining future needs.

♦ Sites that are permitted where implementation is uncertain and so capacity is not included in determining future needs.

Table A1.2: Inert recovery, inert landfill and non-hazardous (including SNRHW) disposal sites

Waste Planning Authority	Site	Location / Address	Planning permission reference and end date (where relevant / available)
Inert recovery			
Cambridgeshire	Chear Fen Farm	Long Drove, Cottenham, CB24 8AH	S/0329/11
Cambridgeshire	Dernford Farm Agricultural Reservoir	CB22 3DG	S/0201/16/CM (31/12/2017)
Cambridgeshire	Saxon Pit	Whittlesey, PE7 1LQ	F/2014/17/CW (28/09/2018)
Peterborough	Hampton Leys South	Hampton, PE7 3EW	05/00560/FUL, 05/01085/FUL
Inert landfill			
Cambridgeshire	Dimmock's Cote Quarry*	Wicken, Cambs	E/0422/987/CM, E/3020/05/CM, E/03010/12/CM
Cambridgeshire	Somersham Landfill Site	Long Drove, Somersham PE17 3HJ	EA BW2862IU
Cambridgeshire	Witcham Meadlands Landfill / Block Fen (Witcham Meadlands)*	Block Fen Drove, Mepal, CB6 2AY	F2000/17/CW, F/02013/07/CW, F/2000/17/CW, F/02020/11/CW, E/03012/11/CW (31/12/2031)
Cambridgeshire	Barrington Quarry, Barrington Works Landfill*	Barrington, Cambridge, CB2 5RG,	S/01080/10/CW
Cambridgeshire	Cow Lane*	Brickyard Farm, Cow Lane, Godmanchester PE29 2EJ	H/05001/08/CW (06/12/2020)
Cambridgeshire	Kennett Hall Farm*	Dane Hill Road, Kennett, CB8 7QX	E/3011/05/CM, E/3000/14/CW (3 years from commencement or 31/12/2021)
Cambridgeshire	Kennett Hall Farm Phase 2A (Southern)*	Dane Hill Road, Kennett, CB8 7QX	E/3000/14/CW
Cambridgeshire	Mepal Airfield Inert Landfill (Former Mepal Airfield)*	Land at Mepal Road (A142), Mepal, Sutton, CB6 2PZ	E/03016/07/CW
Cambridgeshire	Mepal Landfill Extension*	Mepal Landfill Extension, Block Fen Drove, Mepal, Chatteris, CB6 2AY	F/02006/11/CM
Peterborough	Cook's Hole	Cooks Hole	15/00229/MMFUL

Waste Planning Authority	Site	Location / Address	Planning permission reference and end date (where relevant / available)
		Leicester Road Thornhaugh	(31/12/2034)
Peterborough	Thornhaugh Quarry II	PE8 6NL	12/00030/REFPP (31/12/2029)
Peterborough	Cross Leys	Leicester Road, Wansford	10/00488/WCMM, 12/01189/WCMM (31/07/2012)
Peterborough	Pasture House Farm*	The Causeway, Thorney, PE6 0QL	15/01839/MMFUL (02/10/2042)
Peterborough	Thornhaugh lib*	Leicester Road, Wansford	14/01716/MMFUL (5 years from commencement or 10/04/2026)
Peterborough	Willow Hall Farm*	Willow Hall Lane, Thorney	17/00279/WCMM (02/6/2029)
Non-hazardous (including SNRHW) landfill			
Cambridgeshire	Buckden Landfill Site <i>(Inert fill also identified as required for restoration of non- hazardous landfill)</i>	Station Farm, Brampton Road, Buckden PE18 9UH	H/01010/87/CW
Cambridgeshire	Grunty Fen Landfill Site	Grunty Fen Road, Witchford, Ely, CB6 2JE	E/01071/88/CW, E/03002/09/CW (31/12/2026)
Cambridgeshire	March Landfill Site <i>(Inert fill also identified as required for restoration of non- hazardous landfill)</i>	Hundred Road, March	F/02002/12/CW, F/02003/12/CW (31/12/2024)
Cambridgeshire	Milton Landfill Site	Butt Lane, Cambridge, CB4 6DG	S/00289/91/CW, S/00511/08/CW (31/12/2020)
Cambridgeshire	Warboys Landfill Site	Puddock Hill, Warboys, Huntingdon PE28 2TX	H/5014/16/CW, H/5012/15/CW (31/12/2018)
Cambridgeshire	Waterbeach Waste Management Park, AmeyCespa Waste Management Park (Ely Road Landfill Site)	Ely Road, Waterbeach, Cambridge CB5 9PG	S/0013/15/CW, S/0013/15/CW/N1 (31/12/2036)
Cambridgeshire	Witcham Meadlands Landfill / Block Fen (Witcham Meadlands) SNRHW	Block Fen Drove, Mepal CB6 2AY	F/02013/07/CW, F/2000/17/CW (31/12/2031)
Peterborough	Dogsthorpe Landfill Site	Welland Road,	13/01562/WCMM

Waste Planning Authority	Site	Location / Address	Planning permission reference and end date (where relevant / available)
		Dogsthorpe, PE1 3TD	(31/12/2019)
Peterborough	Eye Quarry Landfill (includes SNRHW)	Eyebury Road, Eye, PE6 7UQ	15/01059/WCMM (31/12/2021)
Peterborough	Eye North Eastern Landfill SNRHW	Eyebury Road, Eye, PE6 7TH	10/00650/WCMM
Peterborough	Thornhaugh I Landfill SNRHW	Leicester Road, Thornhaugh, PE8 6NH	17/00726/WCMM (31/12/2034)

** Sites identified as being associated with restoration of permitted mineral extraction sites.*

Appendix 2: Existing waste treatment capacity up to 2036

The following figures illustrate the existing capacity of facilities permitted for the treatment of waste and how this capacity may fluctuate over the plan period.

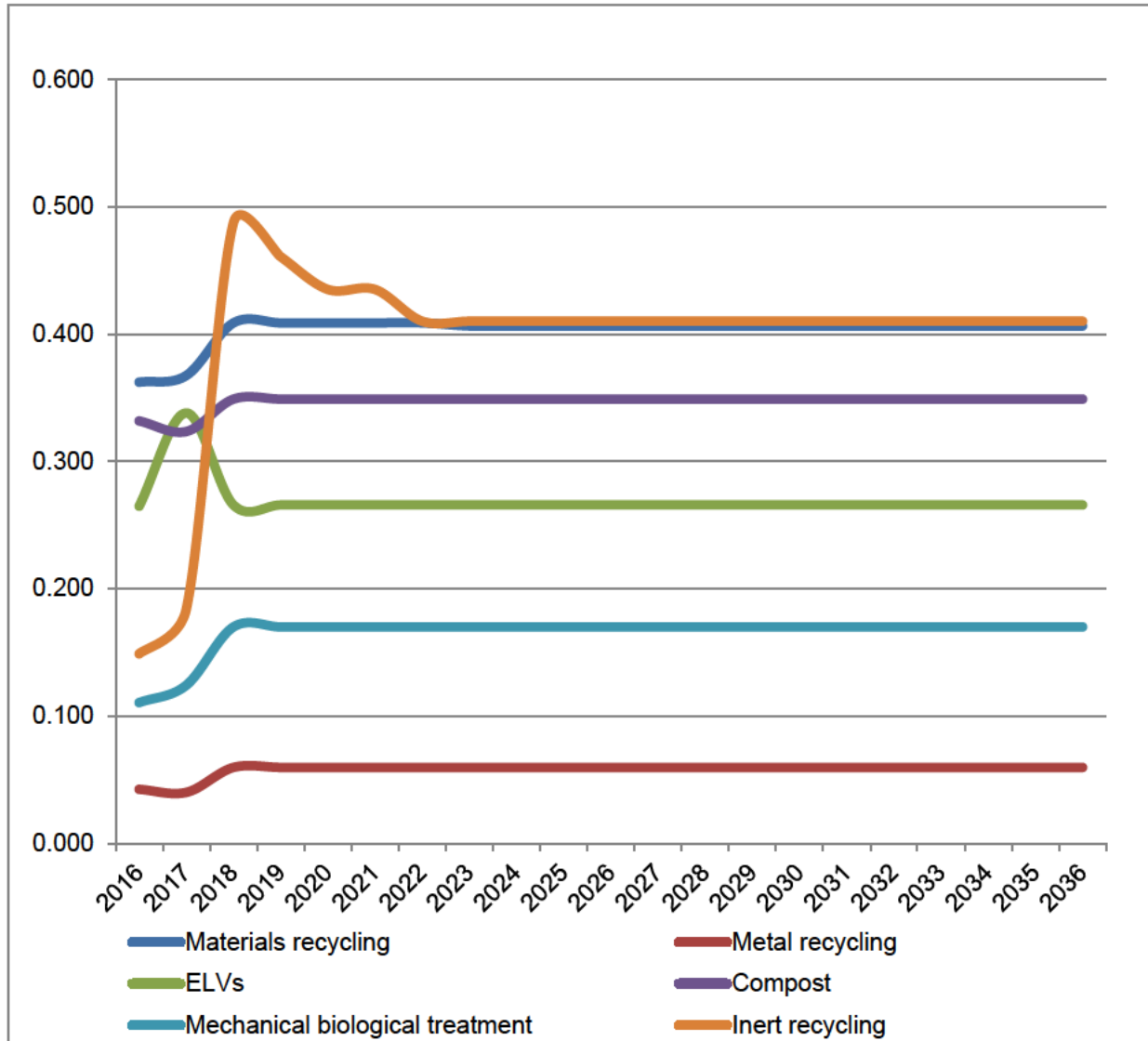


Figure A2.1: Existing estimated capacity for preparing for re-use and recycling up to 2036 (million tonnes)

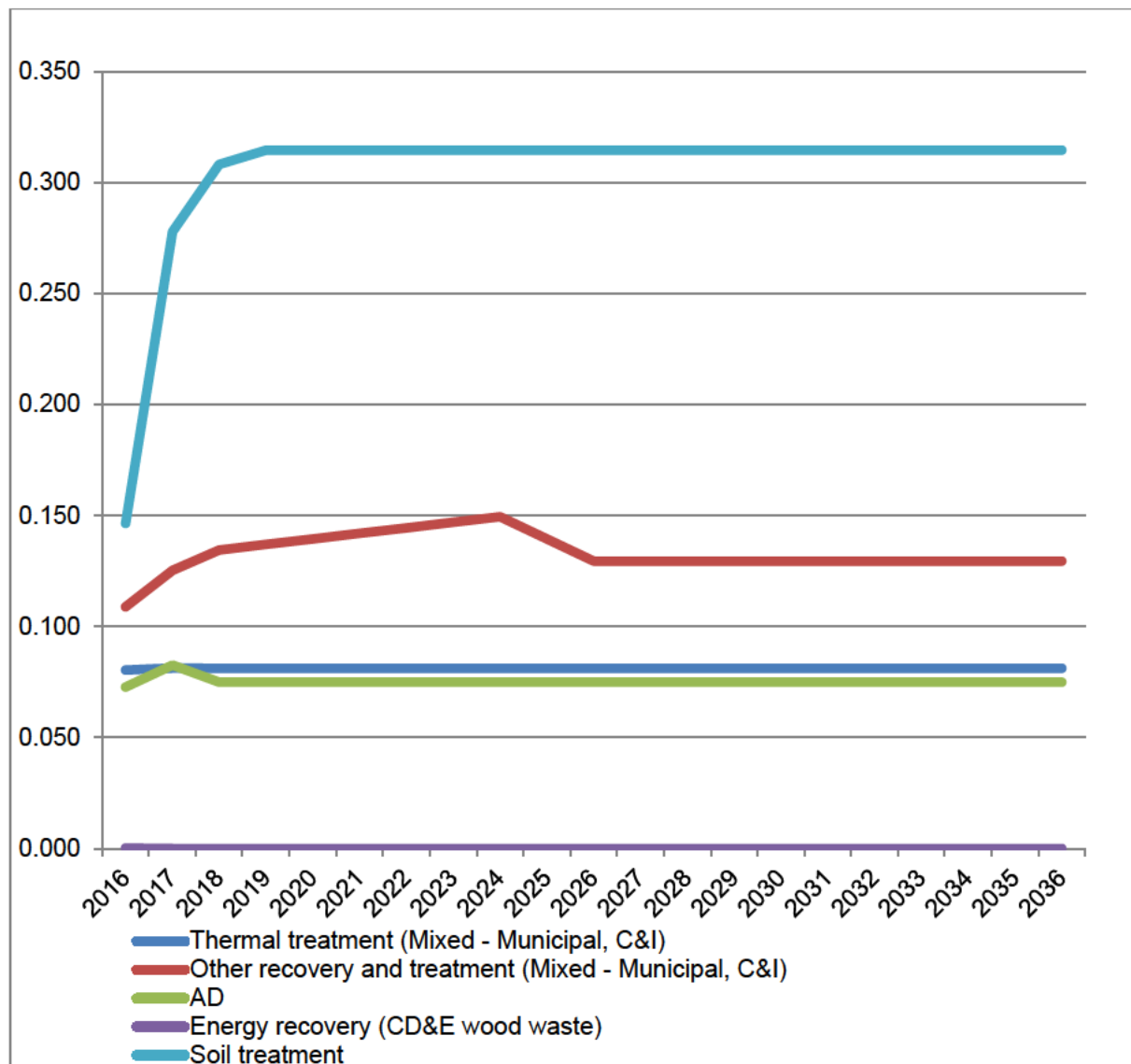


Figure A2.2: Existing estimated capacity for other forms of recovery and treatment up to 2036 (million tonnes)

Appendix 3: Reference list

A list of references used in preparing the WNA is provided below with links to websites where available. References are grouped under the broad areas that the information/dataset was used to inform preparation of the WNA.

Planning policy and local context

Landfill Directive

[REDACTED]

Packaging and Packaging Waste Directive

[REDACTED]

Waste Framework Directive

[REDACTED]

National Planning Policy Framework

<https://www.gov.uk/guidance/national-planning-policy-framework>

National Planning Policy Guidance

<https://www.gov.uk/government/collections/planning-practice-guidance>

National Planning Policy for Waste

<https://www.gov.uk/government/publications/national-planning-policy-for-waste>

National Waste Management Plan for England

<https://www.gov.uk/government/publications/waste-management-plan-for-england>

Our waste, our resources: A strategy for England

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765914/resources-waste-strategy-dec-2018.pdf

National Policy Statements

<https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/national-policy-statements/>

UK Waste Regulations 2011

<http://www.legislation.gov.uk/ukxi/2011/988/contents/made>

National Infrastructure Delivery Plan 2016 to 2021

<https://www.gov.uk/government/publications/national-infrastructure-delivery-plan-2016-to-2021#history>

Shaping the future of England's strategic roads

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/666965/shaping-the-future-of-englands-strategic-roads.pdf

Highways England improvements and major road projects - A14 Progress report

<http://roads.highways.gov.uk/projects/a14-cambridge-to-huntingdon/>

London Plan, March 2016

<https://www.london.gov.uk/what-we-do/planning/london-plan/current-london-plan>

Draft London Plan, November 2017

<https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan>

East of England Waste Technical Advisory Body, Waste Arisings Methodology Paper, Draft, February 2017

Available for download from Cambridgeshire and Peterborough MWLP evidence base library

East of England Waste Technical Advisory Body, Memorandum of Understanding between the Waste Planning Authorities of the East of England

Available for download from Cambridgeshire and Peterborough MWLP evidence base library

Cambridgeshire and Peterborough Waste Partnership RECAP Joint Municipal Waste Management Strategy for Cambridgeshire and Peterborough 2008 to 2022

[REDACTED]

Suffolk Waste Study, September 2017

<https://www.suffolk.gov.uk/assets/planning-waste-and-environment/Minerals-and-Waste-Policy/Suffolk-Waste-Study-Final-Report-September-2017.pdf>

Identify historic & current arisings and management methods

Defra Local authority collected waste: annual results tables

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

Waste DataFlow database

[REDACTED]

EA Waste Data Interrogator and Hazardous Waste Data Interrogator database 2013 to 2017

<https://data.gov.uk>

EA Incinerator returns 2013 to 2017

<https://data.gov.uk>

Defra Commercial and industrial waste survey 2009

Available for download from Cambridgeshire and Peterborough MWLP evidence base library

Defra 2019 UK statistics on waste

<https://www.gov.uk/government/statistics/uk-waste-data>

Defra 2018 Digest of waste and resource statistics

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/710124/Digest of Waste and Resource Statistics 2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/710124/Digest_of_Waste_and_Resource_Statistics_2018.pdf)

WRAP 2010 Construction, Demolition and Excavation waste generation estimate for England

<https://assets.publishing.service.gov.uk/government/.../CDE-generation-estimates.xls>

NDA 2016 Inventory

<https://ukinventory.nda.gov.uk/>

DECC Data collection on solid low-level waste from the non-nuclear sector November 2008

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/254394/Data-collection-lowlevel-waste-nonuclear.pdf

EA Towards sustainable agricultural waste management, 2001

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/291600/geho0003bieo-e-e.pdf

EA Strategic Waste Management Assessment: East of England, 2000

Available for download from Cambridgeshire and Peterborough MWLP evidence base library

Greater London Authority, London Plan Waste Forecasts and Apportionments 2017

https://www.london.gov.uk/sites/default/files/task_3_-_strategic_waste_data.pdf

Identifying growth factors and apportioning waste arisings to authority levels and sectors/activity

MHCLG Housing supply: Net additional dwellings 2001-02 to 2017-18

<https://www.gov.uk/government/statistical-data-sets/live-tables-on-net-supply-of-housing>

Office of National Statistics Mid-year population estimates

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates>

Office for National Statistics NOMIS



Cambridgeshire Municipal waste model 2011-2015

Available on request

Cambridgeshire Insight Population and dwelling estimates 2011-2015, and 2015-based population and dwelling stock forecasts 2015-2036, July 2017

<https://www.peterborough.gov.uk/council/about-peterborough/population/>

Cambridgeshire Insight Population data



Cambridge Econometrics East of England Forecasting Model 2016 baseline results updated August 2016



Identifying waste management capacity

EA Waste Data Interrogator and Hazardous Waste Data Interrogator database 2013 to 2017

<https://data.gov.uk>

EA Incinerator returns 2013 to 2017

<https://data.gov.uk>

Environmental Permitting Regulations - Waste sites

<https://data.gov.uk/dataset/1683346b-abf9-4712-ba84-02871a318212/environmental-permitting-regulations-waste-sites>

EA Environmental Permitting Regulations – Waste operations

<https://environment.data.gov.uk/public-register/view/search-waste-operations>

Waste infrastructure inventory, 2010

<https://data.gov.uk/dataset/5b6fa219-e3e8-4f89-aedc-332d05eccc/dc/waste-infrastructure-report-and-maps-2010>



EA Remaining landfill capacity

<https://data.gov.uk/dataset/remaining-landfill-capacity>

Environmental Permitting Regulations - Landfill sites

<https://data.gov.uk/dataset/f32df1eb-e571-440c-8d1c-75a5233f92f5/environmental-permitting-regulations-landfill-sites-quarterly-summary>

EA Register of waste exemptions

<https://environment.data.gov.uk/public-register/view/search-waste-exemptions>

Cambridgeshire Planning Application database

<http://planning.cambridgeshire.gov.uk/swift/apas/run/wchvarylogin.display>

Peterborough Planning Application database

<https://planpa.peterborough.gov.uk/online-applications/search.do?action=simple&searchType=Application>

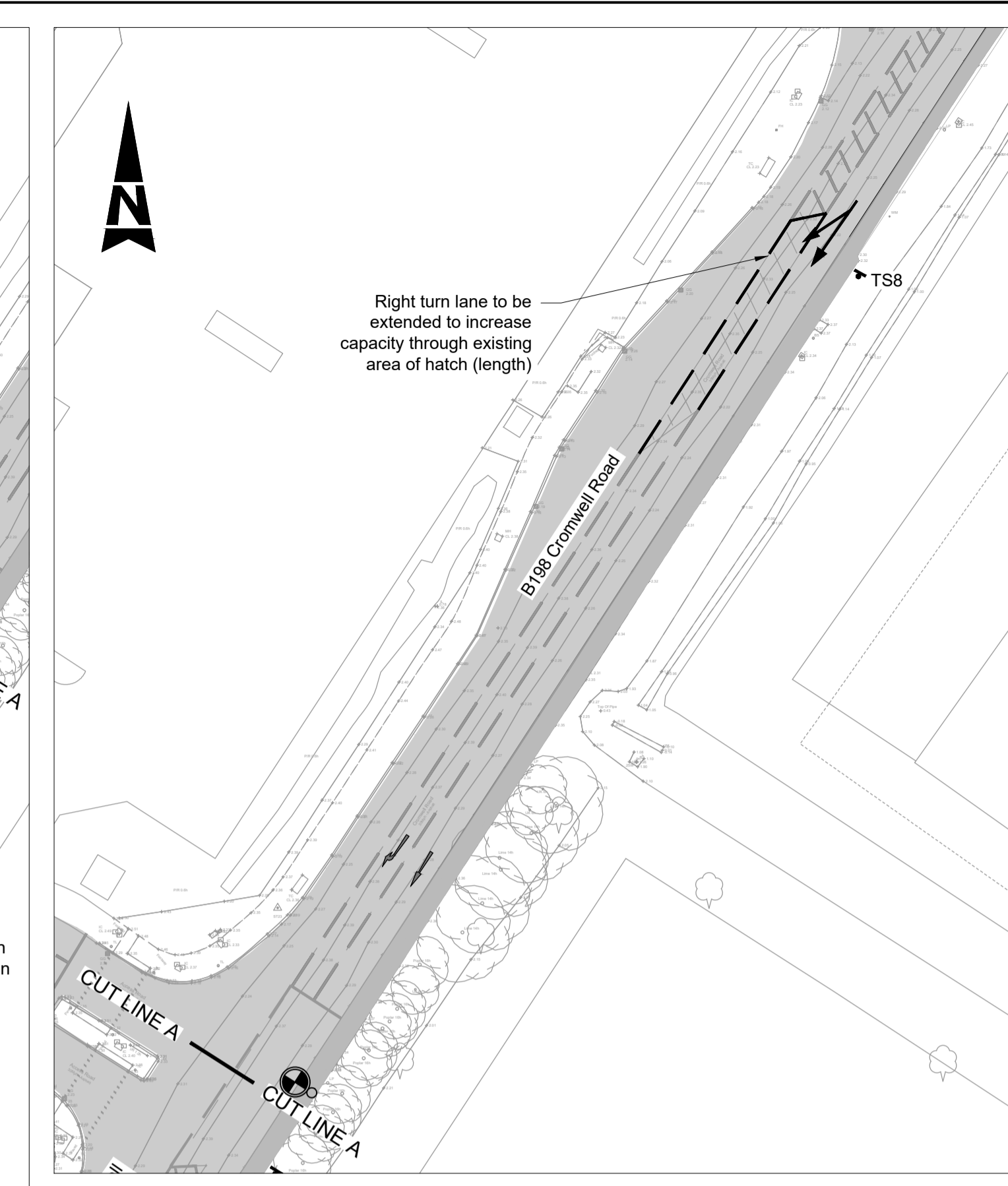
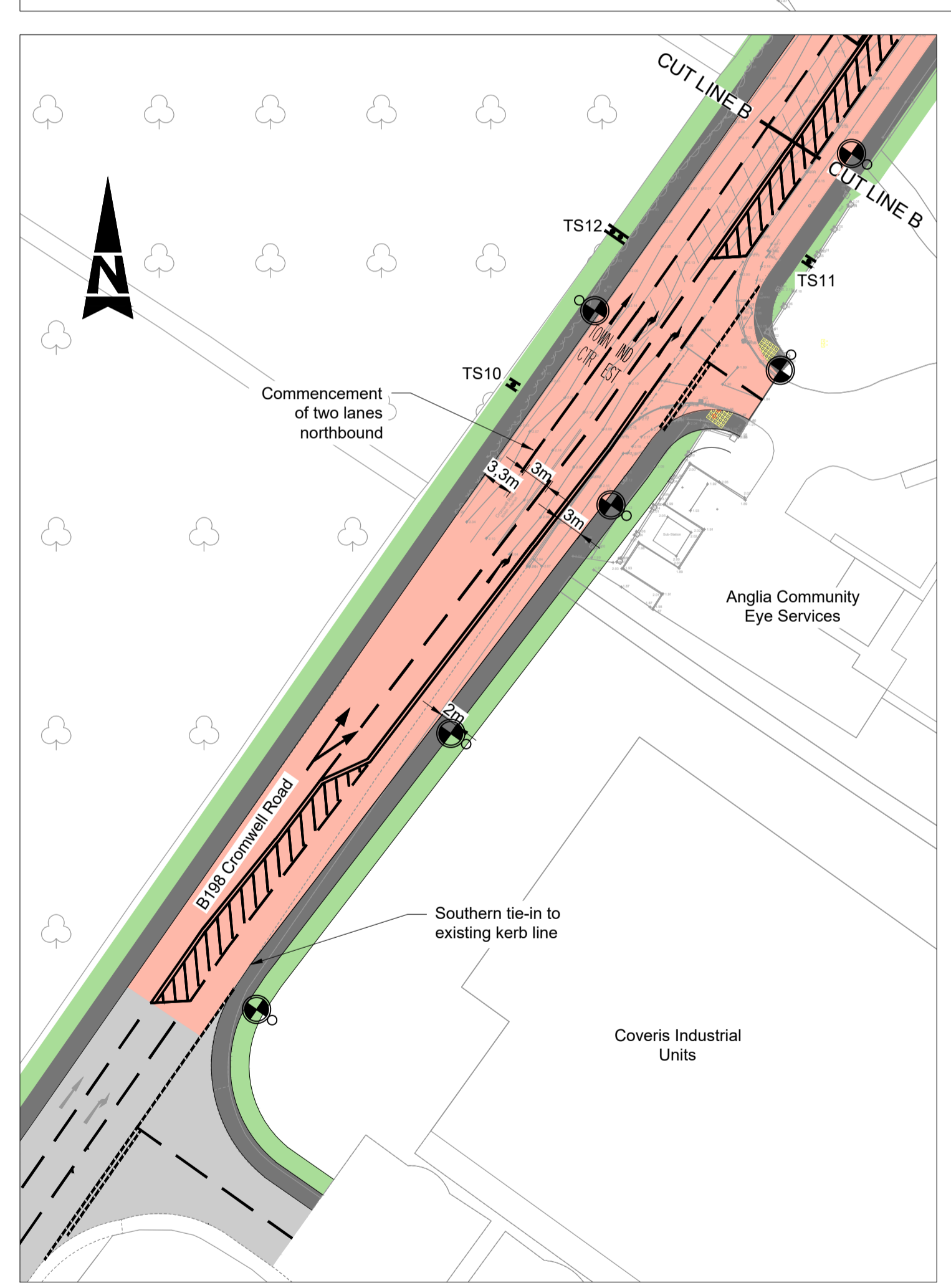
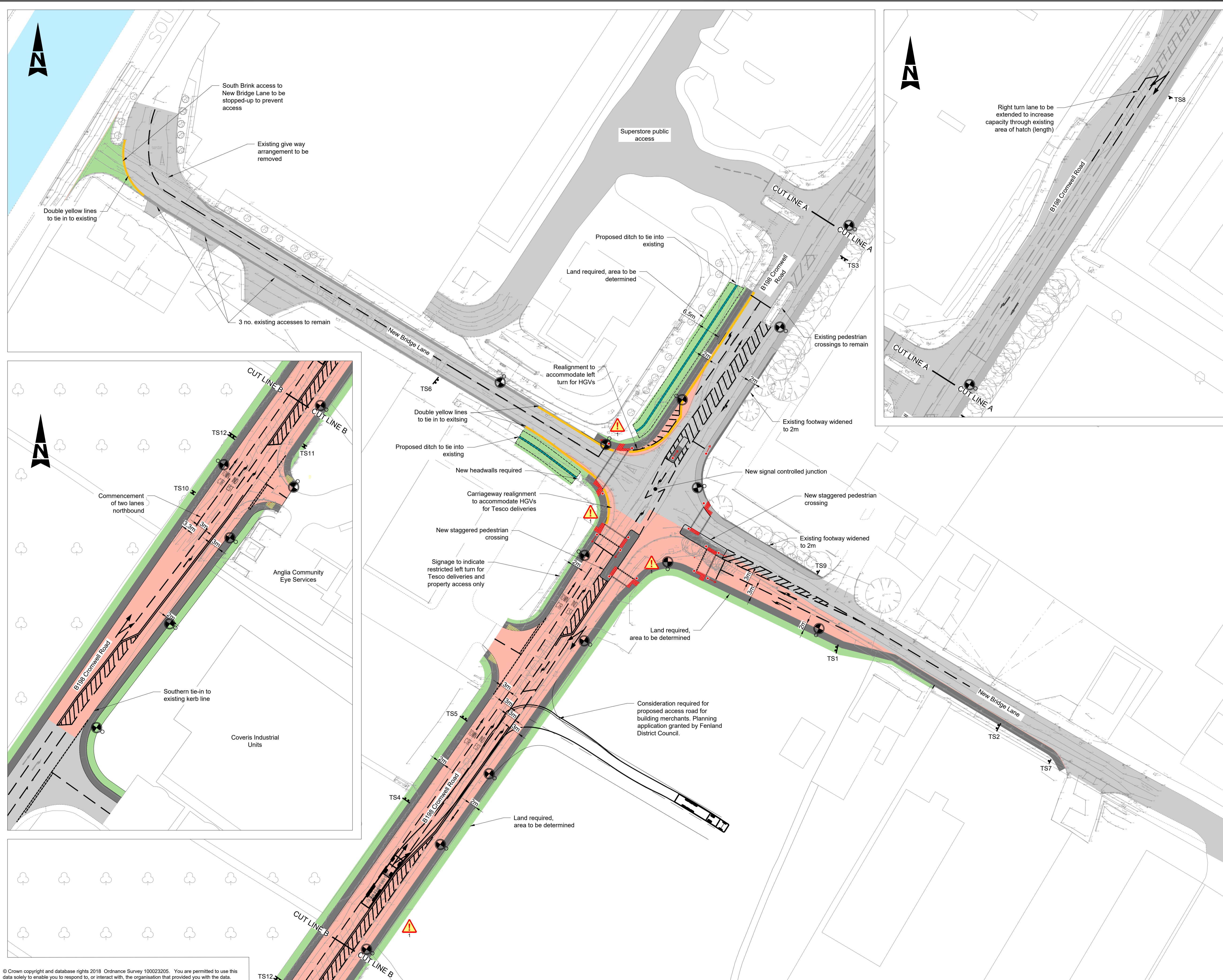
Appendix 4: Compliance checklist – Waste Framework Directive

The schedule below sets out how the emerging MWLP and WNA complies with the WFD as per the Guidance for local planning authorities on implementing planning requirements of the European Union Waste Framework Directive (2008/98/EC).

Table A4.1: WFD Compliance checklist

Does the Local Plan ...	Yes / No	Evidence
Set out how the key planning objectives in national policy, including the waste hierarchy, will be delivered?	Yes	To be detailed in the MWLP vision, objectives and policies Waste needs assessment (WNA)
Provide an assessment of existing and future generation of waste arising over the plan period?	Yes	WNA To be detailed in the MWLP waste planning matters section
Identify where the waste will be managed?	Yes	To be detailed in the MWLP policy(ies) addressing the spatial strategy for waste management and allocations/designations for waste-related development
Consider and clearly identify waste management capacity from existing waste management facilities?	Yes	WNA To be detailed in the MWLP waste planning matters section
Consider and clearly identify future capacity from existing waste management facilities?	Yes	WNA To be detailed in the MWLP waste planning matters section
Identify the number and type of waste management facilities required - including existing facilities - along with specific sites or broad locations?	Yes	To be detailed in the MWLP policy(ies) addressing the spatial strategy for waste management and allocations/designations for waste-related development Proposals Map WNA

As evidenced in the compliance checklist above, the Local Plan is compliant with requirements set out through the WFD.



Residual Risk Assessment
 Wherever possible, risk is designed-out of this proposal during the design process. Where this is not possible, the risk will be minimised and any residual significant risk will be noted and indicated by the symbol.

SIGNIFICANT CDM HEALTH & SAFETY RISKS

1. Statutory undertakers apparatus located within areas of widening.

KEY

	Existing carriageway to remain
	Proposed carriageway re-alignment
	Proposed island and footway area
	Proposed highway verge
	Proposed ditch
	Proposed informal pedestrian crossing point
	Proposed pedestrian crossing point
	Proposed traffic signal
	Proposed traffic signs and reference number - see note 5
	Proposed street lighting columns

- Notes:**
1. Do not scale from this drawing.
 2. Site verify all dimensions prior to construction
 3. Report all discrepancies to the Drawing Originator immediately
 4. This drawing is to be read in conjunction with all relevant documents and drawings.
 5. For details of proposed traffic signs refer to drawings 5100905-SKA-HTS-DR-CH-1202-1203-S1.
 6. For details of road markings refer to drawing 5100905-SKA-HTS-DR-CH-1201-S1.

Rev	Date	Description	Dm	Chkd
P4	25.06.19	Amendments following RSA1	KLK	SPW
P3	04.04.19	Southern tie-in amended	DMB	JS
P2	26.03.19	Proposed footway width increased to 2.0m for shared use. Traffic signs added.	DB	SPW
P1	01.02.19	Staggered crossings added following Green Signals meeting	DMB	SPW
P0	31.10.18	First Issue	DMB	SPW

Revisions

Drawing Originator
Cambridgeshire Highways

Unit 1A, Vantage House
 Washingley Road
 Huntingdon, PE29 6SR
 Tel: +44 (0)1223 785165
 Email: Cambridgeshirehighways@Skanska.co.uk

Drawing Status
PRELIMINARY

Project Name
**WISBECH ACCESS STUDY
 CR2 NEW BRIDGE LANE TESCO**

Title
GENERAL ARRANGEMENT

Scale	Drawn by	Checked by	Approved by
1:500 @A1	DMB	SPW	ADB
	Drawn Date 31.10.18	Checked Date 31.10.18	Approved Date 31.10.18

Drawing Number	Rev
5100905-SKA-HGN-CR2-DR-CH-0001-S1	P4

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