

06 WASTE



OVERVIEW

6.1 What we do with our waste and how we manage the environment and finite resources in a sustainable manner are nationally high-profile topics, particularly with recent media coverage on plastic waste, both within the UK and overseas.¹ The environmental charity WRAP focuses upon the need for a whole lifecycle approach to resources, with priorities to:

- re-invent the way we design, produce and sell products;
- re-think how we use and consume products
- re-define what is possible through re-use and recycling.

In terms of waste resource management, WRAP analysis indicates clear opportunities for growth in the recycling sector and jobs through taking a smarter approach to how we manage finite resources, minimise waste and return more material to the UK economy through recycling.²

6.2 It is generally down to individual councils as to how they collect and manage waste, but there is both domestic and European legislation and government policy which has helped to drive recycling rates. Recycling data is uploaded by councils quarterly to the government's online WasteDataFlow database and league tables are produced at the end of each financial year.

6.3 Landfill Tax is an increasingly important driver. First introduced in 1996, this tax is applied to every tonne of waste sent to landfill. It currently stands at £48 a tonne for 'active' waste and £2.50 a tonne for 'inactive' waste³.

¹ <https://www.bbc.co.uk/news/science-environment-42264788>. The legal definition of waste in the UK is derived from the EU Waste Framework Directive (Directive 2008/98/EC). The Directive states that 'waste' is:- "Any substance or object which the holder discards or intends or is required to discard. Information from p.7 para 1.4 Essex County Council & Southend-on-Sea Borough Council 'Essex and Southend-on-Sea Waste Local Plan' Adopted July 2017.

² WRAP – Resource Revolution: Creating the Future – WRAP's plan 2015-2020

³ Information in paragraphs 7.2 & 7.3 reproduced from www.letsrecycle.com

6.4 The Waste Local Plan, sets out policy considerations which are relevant to the Brentwood Local Plan, including:

- Policy 4 – Areas of Search – Areas where in principle the Waste Planning Authorities may support waste management development outside of allocated sites – these include Childerditch Industrial Estate and West Horndon Industrial Estate.

No new strategic site allocations for waste are detailed within the waste plan for the Brentwood Borough area.

6.5 The annual percentage recycling rates for household waste within Brentwood Borough that is reused, recycled and composted are available below in Figure 6.1. According to WasteDataFlow for the period covering the financial year 2015/16, Brentwood Borough Council was rated 130th out of 351 local authorities for household waste recycling. Local Authorities towards the top of the table are achieving recycling rates of circa 66% and towards the bottom circa 15%.⁴ Brentwood is committed to working towards a recycling rate of 60% by 2020. It is estimated that the average household in the UK produces more than a tonne of waste every year and that the average cost per tonne of waste disposal is about £92.30.⁵

Figure 6.1: Household Waste Recycling

Period For	Annual %
2015-2016	45.9
2014-2015	47.69
2013-2014	43.5
2012-2013	43.2
2011-2012	43
2010-2011	41
2009-2010	40
2008-2009	38
2007-2008	35
2006-2007	31
2005-2006	27

⁴ <https://www.letsrecycle.com/councils/league-tables/201516-overall-performance/>

⁵ Letsrecycle baseline information – based upon January 2017 estimates for Energy from Waste, Landfill plus tax and Refuse Derived Fuel – calculation excludes landfill with no tax which was estimates at between £15-25 per tonne.

EXISTING INFRASTRUCTURE, GAPS AND PROGRAMMES

Existing Infrastructure – Recycling Centres

- 6.6 Within the Borough, Essex County Council is responsible for the operation of the two Recycling Centres for Household Waste (RCHW) in the Brentwood Borough, these centres are located at Coxtie Green, Brentwood and Roman Road, Mountnessing. The Mountnessing RCHW will not accept domestic and construction waste, while the Brentwood RCHW will accept all waste materials to allow for domestic disposals but not trade waste.
- 6.7 The Borough Council runs a recycling site at the Works Depot, The Drive, Warley. This site provides facilities for recycling paper, cardboard, plastics, cans and paper based liquid food and drinks cartons. Textiles, glass and small electrical items can also be taken to the recycling site. The Borough also has recycling modules that accept paper, cardboard, cans and plastics at Brentwood and Shenfield High Streets and a recycling bin for newspapers at Brentwood Station.
- 6.8 Kerbside waste and recycling collection in Brentwood Borough includes:
- household, and garden food waste;
 - glass, paper, cardboard, plastics, cans and textiles, and
 - larger household items – pre-booked paid service.
- 6.9 Residents are not restricted to using sites within their district and will generally utilise sites which are closest to them or on the way to something else hence the inclusion of sites below which are outside of the plan area. The RCHW sites primarily used by Brentwood residents are located as follows.
- Pitsea Hall Lane, Pitsea SS16 4UH
 - Coxtie Green Road, Brentwood CM14 5PU
 - Roman Road, Mountnessing CM4 9AU
- 6.10 The Pitsea Hall Lane facility is the County's most congested facility, where surplus capacity is therefore constrained. As the Mountnessing recycling centre does not collect all materials, restricts vehicle types and is not open 7 days a week we do find some individuals who are in the area of this site travelling to use the Chelmsford facility at Drovers Way, Springfield CM2 5PS.

Existing Infrastructure: Waste Transfer Stations – Commercial

- 6.11 Waste transfer stations are designed to aid the sorting and storing of materials before they can be moved on to larger sites for disposal or treatment. Licensed waste collection vehicles generally deposit material at waste transfer stations so that following sorting it can be transported through larger bulk haulage vehicles better suited to transport waste over long distances. The change in vehicle reduces the amount of mileage used by smaller collection vehicles to transport the waste, which in turn helps reduce traffic in local communities. 6
- 6.12 The Borough currently has a range of licensed trade orientated waste transfer stations⁷ (WTS) some of the WTS are licenced to provide specialist services. Information on environmental licences is available through the Environment Agency Public Registers database. WTS information is detailed below in Figure 6.2.

Figure 6.2: Licenced Waste Transfer Stations

Licensed Holder	Permit Number / Waste Management Licenced Number	Location	Site Type	Additional Info
Range of services				
Heatherland Ltd trading as London Plant and Waste Services	Permit number - BP3397NP/V002 / waste management licence number – 80429	Unit 5 & 6, Hallsford Bridge Industrial Estate, Stondon Road, Ongar, Essex, CM5 9RB	A11 : Household, Commercial & Industrial Waste Transfer Station	Licensed by the Environment Agency for all types of solid non-hazardous commercial, domestic, industrial, biodegradable and inert wastes. It is licensed for up to 230,000 tonnes of waste per annum
G. J Bowmer (Waste Disposal) Limited	Permit number - SP3294NT/A001 / waste	Fairview, Magpie Lane, Brentwood,	A9 : Special Waste	

⁶ Information reproduced from <https://www.biffa.co.uk/household-waste/information-for-councils/our-services/transfer-stations/> - accessed 16th March 2017.

⁷ Information obtained from the Environment Agency Public Registers - <https://environment.data.gov.uk/public-register/waste-operations/registration/BB3708XG-A001?pageState=result-waste-operations>

Licenced Holder	Permit Number / Waste Management Licenced Number	Location	Site Type	Additional Info
	management licence number – 71310	Essex, CM13 3DT	Transfer Station	
Philip W Keen Ltd	Permit number BP3997NC/V005 / waste management licence number - 80431	9 Hallsford Bridge Ind Estate, Stondon Road, Stondon Massey, Ongar, Essex, CM5 9RB	A14 : Transfer Station taking Non-Biodegradable Wastes	
Windsor Waste Management Ltd	Permit number - EB3605TJ/A001 / waste management licence no. 403657	Unit 29 Childerditch Industrial Estate, Childerditch Hall Drive, Little Warley, Brentwood, Essex CM13 3HD	S0809 No 9: Asbestos Waste Transfer Station	Provides a complete recycling and waste management service with container and transportation options for on-site and off-site segregation of business waste
Specialist				
S M H Products Limited	Permit number - ZP3799VD/A001/ waste management licence no. 102930	Unit 3 Childerditch Industrial Estate, Childerditch Hall Drive, Nr Brentwood, Essex, CM13 3HD	S0809 No 9: Asbestos Waste Transfer Station	Specialist end to end decontamination services

Existing Infrastructure: Metal Recycling Sites, End of Life Vehicles and Vehicle De-pollution Facilities

6.13 There are a number of licenced vehicle trade recycling facilities within the Borough, which are detailed below in Figure 6.3.

Figure 6.3: Licenced Vehicle Trade Recycling Facilities

Licenced Holder	Permit Number / Waste Management Licenced Number	Location	Site Type	Additional Info
Brentwood Auto Spares Ltd	Permit number - AP3598NU/A001/ Waste Management Licence - 71141	Thoby Priory, Thoby Lane, Mountnessing, Brentwood, Essex, CM15 0TB	A19 : Metal Recycling Site (Vehicle Dismantler)	Salvage vehicles and spares.
Jack Ellwood, Frederick C Ellwood, Mark C Ellwood, Jessica E Ellwood / TA Warley Auto Salvage	Permit number - CP3294NW/A001/ Waste Management Licence - 71435	Land / Premises At, Warley Street, Great Warley, Brentwood, Essex, CM13 3LB	A19a : End of Life Vehicle Facility	
German Spare Parts Limited	Permit number - AB3508KZ/T001 / Waste Management Licence - 102446	Unit 1 Clapgate, Chivers Road, Brentwood, Essex, CM15 0LH	SR2011 No3: Vehicle Depollution Facility <5000 tps	
Harish Auto Exports Limited	Permit number - BB3708XG/A001 / Waste Management Licence - 401557	Unit 7, Clapgate, Chivers Road, Brentwood, Essex, CM15 0LH	SR2011 No3: Vehicle Depollution Facility <5000 tps	
Europevans Limited	Permit number - BB3304XE/A001 / Waste Management Licence - 401227	Europevans Limited, Thoby Lane, Mountnessing, Brentwood, Essex, CM15 0TB	SR2011 No3: Vehicle Depollution Facility <5000 tps	
R S M Scrap Metal Limited	Permit number - BB3007HQ/A001 / Waste Management Licence - 401043	Four Oaks Yard, Chivers Road, Stondon Massey, Brentwood, CM15 0LH	SR2011 No3: Vehicle Depollution Facility <5000 tps	

6.14 Apart from the licences for the recycling centres, the remaining permits issued by the Environment Agency in the Borough cover a wide range of activities from the use of inert waste to contour golf courses, physical environmental treatments and the treatment of waste to produce soil. Wastewater recycling

facilities as discussed in detail in the Water Infrastructure chapter of this report.

Waste Infrastructure – Gaps in Provision and Potential Projects

- 6.15 Discussions with the Borough Council's Environmental Health team has indicated potential local gaps in waste and recycling in relation to:
- composting facilities – there is no major specialist facility in the Borough;
 - commercial waste recycling – while there are a number of commercial collection services and waste transfer sites, there is potentially a deficit in an easy to access 'turn up' or permit access site for businesses depositing small levels of commercial waste - the Borough continues to witness regular fly-tipping and this may help alleviate some of these problems;
 - potential lack of innovative thinking in end solutions for waste – recognising the increasing limitations of land fill. Opportunities to explore incineration, and waste to energy thermal and non-thermal technologies at a local level.
 - growth and capacity constraints for current RCHW operations.
- 6.16 There are currently no major plans for investment in waste infrastructure within the Borough.

IMPLICATIONS OF GROWTH

- 6.17 The uplift in households through the Local Plan allocations is likely to increase pressure on household waste recycling centres or civic amenity sites, where it is noted that user delays can occur at peak times. In particular, proposed development at West Horndon is likely to place the Pitsea Hall Lane facility under significant pressure. While there are no plans for major waste projects, there will be the need to provide potentially additional on-site recycling areas as part of major housing and employment developments.
- 6.18 At a practical level site level, one of the Council's major allocations is the current Warley Depot site. There will be a need to consider an alternative location or approach to delivering major recycling points or services as this site moves forward for re-development. The site is also home to the Council's transport depot.
- 6.19 There are ambitions to increase household recycling rates across the Borough and there may be an opportunity to consider the feasibility of introducing a more

integrated or smarter approach to recycling and waste management, particularly on larger scheme projects, including Dunton Hills. The Eddington development in the University of Cambridge's new district has introduced underground bins (about 450) with steel bin chutes which are inset in pavements outside of homes to eliminate the need for about 9000 wheelie bins across the 150 ha / 3000 dwelling site. The system uses a large underground chamber and sensors to notify the waste service when full, with the benefit of only undertaking collections when needed. Similar smaller scale schemes are also in operational across the country.

- 6.20 On the topic of innovation, there are opportunities to tackle the lack of specialist composting facilities in the Borough with developing community composting networks. This could be linked to allotments and other locations including schools and community projects.
- 6.21 Dwelling design can also facilitate improved waste management by changing behaviour. Ensuring properties have adequate storage and space to segregate waste is essential. The potential for areas within larger developments for the local bulking of waste may alleviate some of the pressures on existing waste management infrastructure. The Community and Voluntary Sector also have a role to play. By ensuring space is available for community organisations, there is a potential for them to play a role in reuse activity. Existing organisations such as the Lighthouse Project already operate in Brentwood providing a furniture reuse project – the lack of operating space limits their impact at present.
- 6.19 There are connections to be made from energy and waste projects which are usually addressed at the Local Waste Plan level including Energy from Waste (EFW) infrastructure.

FINANCIAL IMPLICATIONS

- 6.20 The exact onsite cost of new neighbourhood scale recycling facilities is very much dependent upon the scale and type of facilities. AECOM have estimated that for the provision of on-site recycling areas, this may cost in the region of £200 per residential unit using their cost model for garden towns / villages.⁸

⁸ https://www.aecom.com/without-limits/wp-content/uploads/2018/01/AECOM_180006BP_Masterplanning_0118_CM_FINAL_SP.pdf

- 6.21 The projected housing growth will impact on the RCHW and contributions from developers may be required to unlock this constraint by improving the waste handling capacity of existing sites through reconfiguration.
- 6.21 Further business case analysis is required in relation to the Warley Depot site and alternative service provision. The end costs may be significant if re-provision of services is required.
- 6.22 The conventional costs of waste and recycling costs can be requested through s.106 agreements for both containers and vehicle infrastructure. Some calculation suggest that a whole additional vehicle would be required where there is approximately 2,000 residential units. The costs for this type of vehicle are circa £150,000. An indication of conventional container costs is detailed below in Figure 6.4⁹.

Figure 6.4: Waste Container Costs

Containment	Cost*
180 litre wheeled bin 17p per litre	£30
240 litre wheeled bin 19p per litre	£45
660 litre wheeled bin 22p per litre	£145
1100 litre wheeled bin 26p per litre	£286
55 litre black box 15p per litre	£8

- 6.23 It is recommended that further feasibility work into smart and underground recycling / waste facilities is undertaken in relation to strategic development sites, including Dunton Hills. There is also an opportunity to consider feasibility and start-up financing for community composting pilots.
- 6.24 Further cost information is detailed in Part B of the IDP.

Revision Schedule – Chapter 6	
Version 1.1	October 2018
Version 1.2	January 2019

⁹ Baseline costs and information from - <http://www.wiltshire.gov.uk/wiltshire-council-waste-collection-guidance-for-new-developments.pdf>