

Technical Appendix 18: Waste Disposal and Recycling

1. Service Overview

- 1.1. Under the Environmental Protection Act 1990, KCC is the Statutory Waste Disposal Authority (WDA) for Kent, responsible for arranging recycling and final disposal of household waste within Kent's 12 district Waste Collection Authorities (WCAs).
- 1.2. Section 34 of the Act places a duty on anyone who produces, imports, keeps, stores, transports, treats, or disposes of waste to take all reasonable steps to manage it properly. This duty extends to anyone who acts as a broker and has control of waste.
- 1.3. KCC currently operates five Waste Transfer Stations (WTS) under contract for the deposit and bulk loading of waste collected by district councils. with another three, non-KCC WTS under contract. Some WCA waste is delivered directly to its final disposal point, eliminating double handling, and freeing up WTS capacity.
- 1.4. KCC also operates 19 household waste recycling centres (HWRC), providing Kent residents with facilities for reuse, recycling, and safe disposal of a range of materials. HWRCs play a key role in enabling KCC to meet its statutory responsibility as a WDA, handling over 170,000 tonnes of wastes in 2018/19 alone.

2. Planning for the Future

- 2.1. Housing growth across Kent is increasing demand for HWRC and WTS facilities, with many now needing replacement or expansion.
- 2.2. KCC's [Kent Waste Disposal Strategy 2017-2035](#) sets out the current position, identifies future pressures and outlines how KCC will maintain a sustainable waste management service. It includes population and housing growth, budget pressures, market provision, current performance, legislation, and performance targets.
- 2.3. Growing national and international waste management challenges also have a significant impact on KCC, including:
 - International waste management facilities beginning to refuse importation of materials to increase their own circular economy.
 - The Government's aim to increase household recycling rates from 45% to 64%.
 - Adherence to the Waste Hierarchy, which sets targets to reduce the amount of waste sent for incineration.
 - Limited nationwide landfill capacity.

- The cost of incineration and landfill, which is double that of other disposal and recycling options.
- 2.4. Kent's waste infrastructure provision will be further affected by [Defra's Resource and Waste Strategy](#). A component of the Environment Act, this sets out measure to preserve material resources by minimising waste, promoting efficiency, and moving towards a circular economy by recycling 65% of waste. Minimising damage to the natural environment by reducing and managing waste safely and carefully, and tackling waste crime, such as fly-tipping is required. It combines actions with firm commitments and longer-term policy direction in line with the 25 Year Environment Plan, a strategy for eliminating all avoidable waste, including plastics, and doubling resource productivity by 2050. This will place further pressure on the WDA, in addition to the pressure from housing growth, for which developer contributions are sought.

3. Approach to Contributions for Waste Infrastructure

- 3.1. Paragraph 20 of The [National Planning Policy Framework](#) (NPPF) requires strategic policies for infrastructure provision, including waste. KCC will work with the LPAs through the Local Plan process, advising where additional infrastructure is required to meet the needs of new housing growth.
- 3.2. As the Minerals and Waste Planning Authority for Kent, KCC must also plan for waste management capacity in its [local plan](#). This forms part of the statutory development plan for Kent, together with the adopted local plans prepared by the 12 district and borough planning authorities, and relevant Neighbourhood Plans prepared by local communities.
- 3.3. There is a direct link between increasing demand on waste facilities and housing growth. Consequently, KCC will seek developer contributions towards the provision of increased HWRC/WTS infrastructure. The contributions sought will meet the tests set out in Regulation 122 of the CIL Regulations 2010 (as amended).
- 3.4. In order to fulfil its statutory duties, KCC has a network of WTS and HWRC across Kent. Whilst many districts are served by a WTS and at least one HWRC, to aid efficiency, the provision of waste facilities are planned across Kent with one facility sometimes serving two or more districts. Unlike the WCAs, KCC waste operations are not bound by district borders.
- 3.5. However, there will be one waste facility that will directly serve a new development and its expansion, improvement or a new provision will directly meet the need created by the development. For HWRCs KCC seeks to ensure that facilities are located within a circa 20-minute radius of a development. Therefore, the impact of growth on facilities in the 20-minute radius will be assessed and where there is a deficit of provision, a contribution will be sought for a HWRC directly related to the development.

4. Assessing Need and Calculating Demand

4.1. Threshold for Seeking Contributions and Qualifying Developments

4.1.1. Any development of 10 or more dwellings or a site size of 0.5Ha and above will be assessed. This could generate a request for a contribution where there is an infrastructure deficit in relation to WTS and/or HWRC, and insufficient capacity to accommodate waste and recycling produced by new development.

4.2. Capacity Assessment Criteria

4.2.1. A number of factors influence when a site requires replacement or improvement, including:

- Refuse Collection Vehicles (RCVs) queuing for access to the site, which is a common problem at both WTS and HWRC facilities. As well as the safety implications of RCVs queuing on to the public highway, delays reduce their ability to complete collection rounds in a timely manner.
- Site restrictions in terms of scale and layout, which result in operational inefficiencies and lower-than-average recycling rates. Many WTSs and HWRCs have been modified to accommodate the latest requirements for material segregation, but further work will be needed as new legislation designed to increase recycling rates comes into effect.
- The site no longer being fit for purpose in terms of public usability. Many of KCC's HWRC facilities require the public to use steps to dispose of waste into containers. This reduces site capacity since the steps take up much-needed container storage space.

4.2.2. Further housing development within an area exacerbates all the above issues, creating the need for new sites, or extension to existing facilities. Note that KCC's capacity assessment takes only housing growth into account, not any background growth brought about through changes to residents' behaviours.

4.2.3. The need for replacement /extended sites is set out below.

4.2.4. KCC will continue to engage with the district councils through the local plan process, providing details of project in their areas with a view to seeking site allocations within the plan. Regular reviews of infrastructure capacity will ensure service demands are adequately captured in the longer-term.

4.2.5. Mercantile facilities are currently used for Waste Transfer Stations in Canterbury, Thanet, and Maidstone districts. Contracts have secured sufficient capacity up to 2030 (as a minimum), so contributions towards WTS facilities are not currently being requested in these areas.

4.3. Contribution Methodology

4.3.1. When considering the need for a new facility, KCC assesses all available delivery models to ascertain the most cost-effective solution. This includes

using mercantile facilities where available, as well as new build projects funded through capital borrowing or Design, Build, Finance, Operate (DBFO) contracts via revenue funds. Only those projects funded through capital borrowing are included in requests for developer contributions.

4.3.2. Contributions will be requested on a 'per dwelling' basis. The methodology is based upon the build cost per tonne of infrastructure capacity, multiplied by the tonnage of waste produced by a household. The per dwelling rates for WTS and HWRC are set out below.

4.4. Infrastructure Need and Contributions

4.4.1. Waste Transfer Station (WTS) Facilities

4.4.1.1. To meet the needs of housing growth up to 2030, KCC has identified the need for at least five new or improved WTS facilities across Kent. These are summarised in Table 1.

Table 1: WTS - Projects.

WTS Sites	Project Type	Serves (District)
Folkestone WTS	New (additional)	Ashford, Folkestone
Ebbsfleet WTS	New (additional)	Gravesham Dartford
Sevenoaks WTS	Extension	Sevenoaks
Sittingbourne WTS	Extension	Swale
Tunbridge Wells WTS	Replacement, including increased capacity	Tunbridge Wells, Tonbridge and Malling

4.4.1.2. Based on KCC's recent experience on similar projects, the estimated cost of providing a WTS facility with 75,000-tonne capacity is £13 million.

4.4.1.3. This equates to £173.33 per tonne and includes the cost of build and land. Tonnage figures for Kent show that each dwelling produces 0.82 tonnes of waste requiring processing at a WTS each year -see Table 2 below.

This gives a per dwelling rate for new WTS infrastructure of £142.13.

Table 2: WTS - Contribution Per Dwelling.

New WTS	Cost	Cost Per Tonne £13,000.000 / 75,000	Waste Per Dwelling	Cost Per Dwelling (£173.33 * 0.82)
75,000 Tonne Capacity (Per Annum)	£13,000,000	£173.33	0.82 Tonnes Per Annum	£142.13

4.4.2. Household Waste Recycling Centre (HWRC) Facilities

4.4.2.1. To increase recycling capacity, several existing HWRC sites have been identified for replacement or extension, with one additional facility required. These are summarised in Table 3 below.

Table 3: HWRC Projects.

HWRC Sites	Project Type	Serves (District)
Dover HWRC	Extension	Dover HWRC catchment
Ebbsfleet HWRC	New (additional)	Dartford and Pepperhill HWRC catchment
Sittingbourne HWRC	New (replacement, including increased capacity)	Sittingbourne HWRC catchment
Faversham HWRC	Extension	Faversham HWRC catchment
Maidstone HWRC	Extension in the short term New (Replacement, including increased capacity in the long term)	Maidstone HWRC catchment
Margate HWRC	Extension	Margate HWRC catchment
Sheerness HWRC	Extension	Sheerness HWRC catchment
Swanley HWRC	Extension	Swanley HWRC catchment

Tunbridge Wells HWRC	Extension	Tunbridge Wells HWRC catchment
Folkestone HWRC	Extension	Folkestone HWRC catchment

4.4.2.2. Based on KCC's recent experience of delivering similar projects, the estimated build cost of providing a new HWRC facility of 25,000 tonnes capacity is £5 million, and £1 million for a 5,000 tonne HWRC extension. Both equate to a build cost of £200 per tonne, again, including provision for land purchase. Figures show that each Kent household produces 0.26T of waste to be processed at a HWRC each year, giving a **per dwelling rate for HWRC infrastructure of £52.00** – see Table 4 below.

Table 4: HWRC – Contribution Per Dwelling.

New HWRC	Cost	Cost Per Tonne £5,000.000 / 25,000	Waste Per Dwelling	Cost Per Dwelling £200.00 * 0.26
25,000 Tonne Capacity (Per Annum)	£5,000,000	£200.00	0.26 Tonnes Per Annum	£52.00

HWRC Extension	Cost	Cost Per Tonne £1,000.000 / 5,000	Waste Per Dwelling	Cost Per Dwelling £200.00 * 0.26
5,000 Tonne Capacity (Per Annum)	£1,000,000	£200.00	0.26 Tonnes Per Annum	£52.00

4.4.2.3. Unlike the WTS catchment areas, those for HWRCs have not been defined by district boundaries: residents are thus free to use any HWRC, regardless of which district/borough it lies within. Typically, residents choose a site based on ease of access, typically a circa 20-minute radius, depending on distance, site capacity or the range of materials accepted.

4.4.2.4. All customers must book a slot in advance and provide a postcode, allowing KCC to monitor which district customers are travelling from. An analysis of

1.7m trips to Kent’s HWRCs between March 2021 and February 2022 is provided in **Table 5** below, with the shaded cells representing the district in which each HWRC is located. It is clear that most users choose the facility in their area, or where access is easiest.

Table 5: (Part 1) Proportion of trips made to HWRCs from customer postcode location (March 2021 – February 2022).

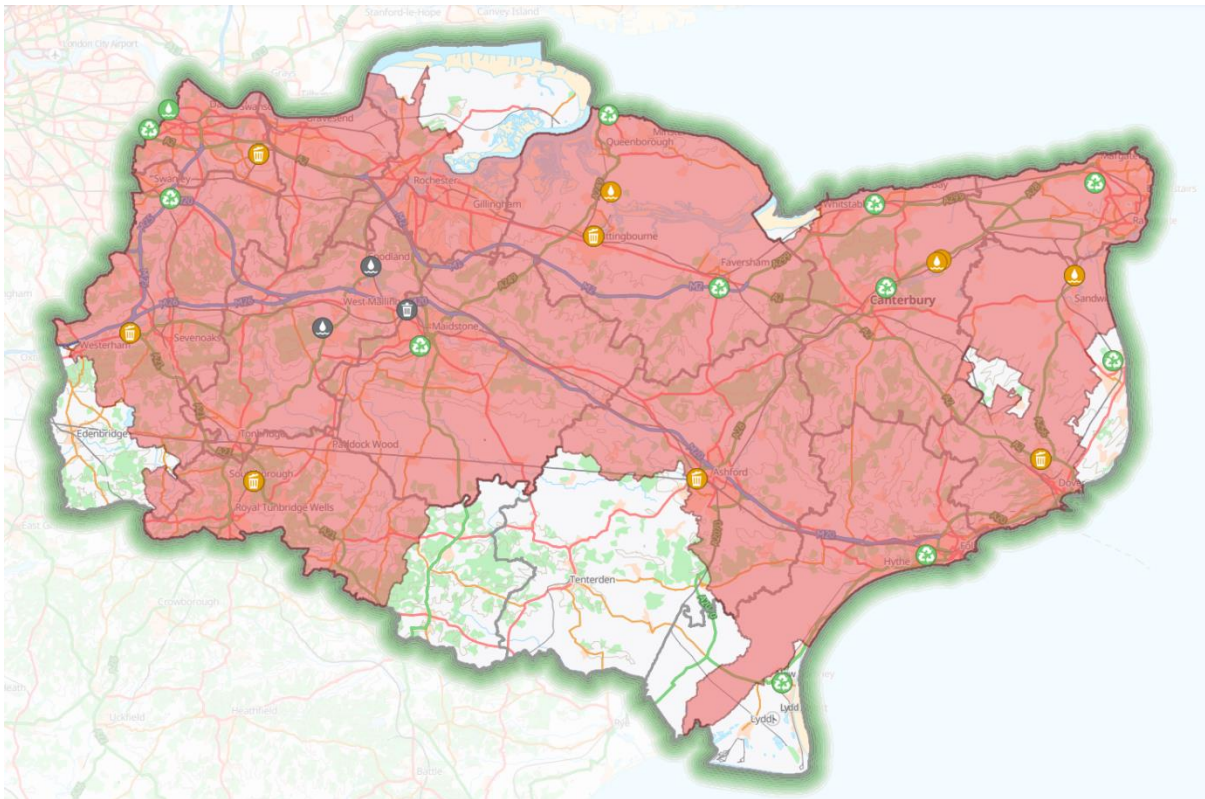
HWRC	Custom						
	Ashford	Canterbury	Dartford	Dover	F&H	Gravesham	Maidstone
Ashford	91.3%	0.4%	0.0%	0.2%	2.4%	0.0%	4.5%
Canterbury	1.7%	89.1%	0.0%	4.4%	1.7%	0.1%	0.3%
Dartford	0.1%	0.1%	90.1%	0.1%	0.1%	1.4%	0.4%
Deal	0.1%	0.4%	0.0%	97.7%	0.3%	0.0%	0.0%
Dover	0.2%	2.2%	0.0%	93.4%	3.5%	0.0%	0.0%
Faversham	5.6%	6.8%	0.0%	0.4%	0.3%	0.1%	1.5%
Folkestone	0.8%	0.3%	0.0%	2.6%	95.6%	0.0%	0.1%
Herne Bay	0.1%	97.0%	0.0%	0.4%	0.1%	0.0%	0.1%
Maidstone	0.4%	0.2%	0.0%	0.1%	0.1%	0.1%	85.1%
Margate	0.1%	0.6%	0.0%	0.6%	0.1%	0.0%	0.0%
New Romney	8.1%	0.2%	0.0%	0.3%	87.1%	0.0%	0.2%
Pepperhill	0.1%	0.1%	18.5%	0.1%	0.1%	69.8%	0.5%
Richborough	0.1%	1.2%	0.0%	44.4%	0.2%	0.0%	0.1%
Sevenoaks	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%	0.3%
Sheerness	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.5%
Sittingbourne	0.2%	0.3%	0.0%	0.1%	0.1%	0.1%	3.8%
Swanley	0.1%	0.1%	5.6%	0.1%	0.1%	1.1%	0.9%
Tunbridge Wells	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%
Total Visits	139,030	205,922	88,993	213,938	163,839	87,435	142,036

Table 5: (Part 2) Proportion of trips made to HWRCs from customer postcode location (March 2021 – February 2022).

HWRC	Custo						
	Sevenoaks	Swale	Thanet	Tonbridge and Malling	Tunbridge Wells	Medway	Outside Kent
Ashford	0.0%	0.2%	0.1%	0.1%	0.5%	0.0%	0.2%
Canterbury	0.0%	1.2%	1.2%	0.1%	0.0%	0.0%	0.2%
Dartford	4.9%	0.1%	0.1%	0.3%	0.0%	0.1%	2.3%
Deal	0.1%	0.0%	0.8%	0.0%	0.0%	0.0%	0.4%
Dover	0.0%	0.1%	0.4%	0.0%	0.0%	0.0%	0.1%
Faversham	0.0%	84.6%	0.4%	0.1%	0.0%	0.2%	0.1%
Folkestone	0.1%	0.1%	0.1%	0.0%	0.1%	0.0%	0.2%
Herne Bay	0.0%	0.5%	1.4%	0.0%	0.0%	0.0%	0.2%
Maidstone	0.1%	0.3%	0.1%	12.6%	0.7%	0.2%	0.1%
Margate	0.0%	0.1%	98.1%	0.0%	0.0%	0.0%	0.2%
New Romney	0.0%	0.0%	0.1%	0.1%	0.2%	0.0%	3.6%
Pepperhill	8.0%	0.2%	0.0%	0.8%	0.0%	1.5%	0.2%
Richborough	0.0%	0.1%	53.6%	0.0%	0.0%	0.0%	0.2%
Sevenoaks	73.0%	0.0%	0.0%	17.3%	1.2%	0.0%	7.7%
Sheerness	0.0%	98.2%	0.1%	0.1%	0.0%	0.2%	0.2%
Sittingbourne	0.0%	94.3%	0.2%	0.4%	0.0%	0.5%	0.1%
Swanley	75.0%	0.1%	0.1%	9.0%	0.2%	0.1%	7.6%
Tunbridge Wells	1.5%	0.0%	0.0%	24.7%	70.3%	0.0%	1.1%
Total Visits	120,257	144,311	199,758	77,919	107,583	3,091	18,820

4.4.2.5. As the table shows, while most residents use their own district HWRC (shown in green), this is not always the case. The [WRAP](#) (Waste and Resources Action Programme) Guide recommends that HWRC provision should be located so residents are within a 20-minute drive. KCC has used this recommendation to create its HWRC catchment area, using Lower Layer Super Output Area (LSOA) boundaries. **The HWRC rate will be applied to those developments within a HWRC catchment area with an identified project, as shown by Plan 1.**

Plan 1: HWRC catchment area (shown in red).



4.4.3. Land Contribution

4.4.3.1. Where new waste infrastructure is required, or additional land needed to enable an existing WTS/HWRC to expand, KCC will seek the provision of land and/or proportionate financial contributions.

4.4.3.2. National Planning Practice Guidance advises how planning authorities should prepare plans and take account of waste requirements. KCC will work with the LPAs and developers to identify and allocate sites to ensure additional waste capacity is planned for, including land required for waste expansions and new facilities.

4.4.3.3. This land will generally be provided to KCC at 'nil consideration'. Where there is no realistic prospect of development, its value will normally be based on its existing or alternative-use value. If the site could realistically have gained residential planning permission, but is required to provide

infrastructure for other sites, it will normally be valued at residential land value. Where a developer is providing land and the site area exceeds the development's needs, the landowner should not be disadvantaged. In these cases, KCC will seek proportionate land contributions from other sites and transfer these sums to the land provider.

4.4.3.4. The site will still be provided to KCC at nil consideration. KCC will work with the LPAs to secure this via the s106 process and CIL contributions.

5. Indexation

5.1. To ensure that financial contributions continue to cover the actual cost of delivering infrastructure, these will be subject to indexation. The BCIS All-In Tender Price Index will be applied, with the base date for indexation set at March 2022.

6. Time Limit on Spend

6.1. Any contributions will be repaid to the original payee on request if not committed or spent towards its purpose within 10 years of receipt of the contributions in full (if paid in instalments) or alternative longer period as may be agreed.

7. Further Information

7.1. Please seek early advice from KCC Waste for further information on land requirements and transfer terms – email wasteinfrastructure@kent.gov.uk.