

Collection of household waste and recycling in Leeds – baseline position**Purpose:**

This appendix summarises how we currently collect and process household waste across Leeds for our 357,000 households, the outcomes in quantities of waste and recycling percentages/rates, and at what financial cost.

1. How we collect and process waste currently:**(a) Dry recyclable waste (green bins)**

COLLECTION - All residents in Leeds have access to a green bin (or green bags) where they can choose to dispose of a wide range of items/material for recycling. The vast majority of households have their own green bin, but some share communal green bins (eg in flats/high rise). Most (76%) of households have a fortnightly collection of their green bin, alternated with the black bin. However, about 5,000 properties in the Headingley, Hyde Park and Chapeltown areas receive a weekly black **and** fortnightly green bin collection. The rest get a 4-weekly collection (with a weekly black bin collection). A small number (approx. 5,000 households) have opted out of green bin collections altogether. The current household guide to what is accepted in a green bin is included in this appendix for info. In summary, that includes most plastics, metal cans, pots/tubs/trays, paper, cardboard – but not glass or food.

DISPOSAL – All waste collected in green bins is taken to our current contractor, HW Martins, to sort and process at their site off Dewsbury Road. Known as the Materials Recovery Facility (MRF), through a series of mechanical and manual sorting processes the different recyclable materials are separated, cleaned and processed into the required format ready to send to manufacturers who will recycle into new products. The facility does as much of the separating and processing as possible to minimise a further stage being necessary before recycling. An example is the sorting and processing into flakes of plastics at the site into the various types ready for the market. This cuts down on unnecessary transportation, and helps ensure more direct, sustainable and valuable markets can be found; reducing cost, allowing more materials to be collected in the green bin and improving the recyclable life of materials.

(b) Garden waste (brown bins)

COLLECTION – Leeds currently collects significantly more garden waste from households than any other council in the UK. We are in the minority of councils that still offer this discretionary service without an additional charge. Most councils charge, and consequently collect significantly less waste. When councils have moved to a chargeable service, they have typically seen a reduction of around 50-60% in the number of households they collect from. Leeds collects brown bins every fortnight from 216,000 households citywide. The service was designed and introduced with the aim to help those households with sufficiently sized gardens reduce the amount of garden waste going in their black bin, and to supplement home composting and free disposal at HWRCs. Hence the policy agreed in 2014 for one brown bin per household, around which the routes are designed and resourced.

DISPOSAL – Currently we have two contractors that we use to take our garden waste to, for them to process into compost. These are Wastewise (located near Esholt) and Biffa (located at Skelton). Wastewise mainly dispose of the compost they create to farmers for agricultural use. The compost created by Biffa is used as part of the land reclamation project at Skelton.

(c) Residual waste (black bins)

COLLECTION – Every household has access to a black bin (or bagged collection), most have their own and some share communal bins. Most (76%) of households have a fortnightly collection of their black bin, alternated with the green bin. The rest get a weekly collection of their black bin (or bag). If residents were

using the green and brown bins/composting to their fullest and taking glass and textiles to a local bring banks, the main contents in black bin would be food waste, a small number of plastics non-recyclable paper and card and other items such as nappies and other miscellaneous non-recyclable items.

DISPOSAL – All our black bin waste is collected and taken to the Recycling and Energy Recovery Facility (RERF) at Cross Green, operated through a contract by Veolia. None of our black bin waste goes to landfill. A small amount of the waste is separated for recycling before incineration (ferrous and non-ferrous metals). The waste material is then incinerated and the energy created used to generate electricity that is fed into the national grid and the heat created is used to feed the Leeds Pipes network which provides heating to households and businesses. The resultant ash from the process has further metals extracted for recycling and the remaining ash is mostly used in construction aggregates, such as for road building.

(d) Glass (glass banks)

COLLECTION – We currently provide a local network of over 700 bottle banks throughout the city where mixed glass bottles and jars (and lids) can be disposed of. The bottle banks are provided by LCC, but the collection/emptying and transportation to the processing plant is through the contractor, URM Ltd. A bunker at Kirkstall HWRC is used as a waste transfer facility by the contractor.

DISPOSAL – All our glass is collected and taken to their processing plant by our contractor URM Ltd. The glass is washed, separated and processed into “cullets” at the plant. Because we collect glass separately, the glass produced at URM is of the highest grade. This means the glass can be recycled more times and has a greater financial value. The cullets are taken to a neighbouring plant, where new bottles are made. The carbon footprint of the recycling/manufacturing process is therefore minimised.

(e) Food (Rothwell kerbside trial) – currently suspended

COLLECTION – A small scale trial started in 2009 in the Rothwell and surrounding area/villages. About 12,400 households are able to use a kitchen caddy/compostable liners system to leave food waste out for collection. One refuse crew/vehicle was dedicated to this, offering a weekly collection service. Each caddy would be emptied into a wheely bin which, when full, would then be emptied into the wagon as normal.

DISPOSAL – Under the existing contract, the food is taken by our crew to the contractor’s transfer facility in Dewsbury operated by Biffa Waste Services. From here Biffa transfer the food to an Anaerobic Digestion plant in Cannock. The process of anaerobic digestion produces bio-methane which is a source of renewable energy and bio-fertiliser which is rich in nutrients and used in agriculture.

(f) Other materials

Textiles (on council land)

COLLECTION – We currently have 50 banks on 40 sites which are council bring sites (usually alongside glass and paper banks) and venues such as leisure centres. We have in recent years undertaken expansion of the network of banks during the student changeover period to help with waste reduction. The contract is held by Nathans Wastesavers who provide the banks, collect, re-use and recycle the textiles, and are based in Denny, Scotland where they where the mixed textiles are sorted and graded.

DISPOSAL - The graded textiles are sold and exported to counties in Europe and Africa. The textiles unsuitable for re-use are recycled in the UK to make rags and cloths. The council receives an income for the textiles collected which is at the current market rate.

Paper Banks (on council land)

COLLECTION – We currently have 79 banks on council bring sites (usually alongside glass and textile banks). The long-term contract is held by Saica Nutur who provide the banks, collect and recycle the paper. Saica are based in Doncaster where the material is taken to for processing.

DISPOSAL – The material is sorted and then baled for onward transport to Saica’s papermill in Manchester where the material is recycled into new paper products. The council receives the current market rate for the paper materials which is offset by a service charge.

WEEE Banks (on council land)

COLLECTION – We currently have 40 banks over 31 sites that collect a range of WEEE (Electrical) Items. The contractor, Wastepak are responsible for the collection and onward recycling/treatment.

DISPOSAL – The electrical Items collected are sorted into high value items such as mobile phone, games consoles and laptops etc. The high value items are wiped using various mechanical and electrical methods and are then stripped down to their valuable component parts which are sold to be reused or used as raw materials. The sale of these materials generates an income to the council. The lower value items are recycled with other mixed electricals whereby the process involves stripping down the products mechanically and separating the various materials into things that have a value and can be recycled.

Batteries

COLLECTION – We currently have around 400 battery collection points at business, community halls and council buildings around Leeds. The contractor Wastepak are responsible for the collection and onward recycling/treatment of the batteries.

DISPOSAL – The batteries are collected and bulked up and taken to a treatment facility in Manchester where the batteries are both mechanically and chemically processed to extract valuable metals, earth metals and compounds which are then used as raw materials to be recycled into other products or used in the manufacture of new batteries.

2. The current cost of providing the services:

Table A: The following is a high-level breakdown of the 2021/22 operational budget, split as far as possible into the different elements of the service. Some broad assumptions have been made to provide these figures; they do not include any senior manager, back office/support/contract management staff or depot/site management costs. The figures should therefore be taken as indicative only. Also included is the cost of disposing of the waste by each waste type. These base budget figures do NOT include any extra staffing or tonnages relating to Covid.

Budget		Bin Collection Routes				Totals
		Black	Green	Brown	delivery/sh units	
Staff Numbers (FTEs)	Operational only	145.6	156.4	61.1	11.2	374.4
Employees	Chargehands/Loaders Operatives	4,612,475	4,952,400	1,936,808	334,582	11,836,265
	Additional ops cover pool	302,118	324,350	126,818	23,328	776,614
	Supervisors and Managers	732,198	786,079	307,348	56,536	1,882,161
		5,646,791	6,062,829	2,370,974	414,446	14,495,040
Premises	Depot running costs etc	35,743	38,373	15,004	2,760	91,880
Supplies and services	Bin bags, PPE, incabs/software	157,502	169,093	66,113	12,161	404,870
Transport	Fleet SLA, fuel, maintenance/repairs, RCV hire	1,650,567	1,772,029	692,844	80,400	4,195,840
Central Charges	Other	63,060	67,701	26,470	4,869	162,100
	New Depot Borrowing - annual repayment	79,749	85,618	33,476	6,158	205,000
	Purchase Of New Bins - annual repayment	-	-	-	827,000	827,000
Waste disposal/processing costs		11,641,958	1,464,000	913,275	-	14,019,233
Income	2nd collections in high rise paid for by HRA	(347,260)	-	-	-	(347,260)
	New/replacement wheely bins contribution	-	-	-	(283,610)	(283,610)
	Net sales of recyclates	-	(492,000)	-	-	(492,000)
Grand Totals (Net costs):		18,928,111	9,167,642	4,118,156	1,064,184	33,278,093

Table B: The following table summarises by waste types the tonnages collected and cost of disposing, together with how much income we get from each recycle (this includes at Households Waste and Recycling Centre (HWRCs) and bring banks). Note – these are the 2021/22 base budget figures, and so do not include the effect of Covid on tonnages.

	Estimated Tonnes 2021/22	Total Cost 2021/22 £
Residual Materials (non-recyclable)		
Black bin waste	167,985	11,641,958
Green bin waste (unrecyclable material)	9,357	334,813
Asbestos - HWRCs	130	16,524
Plasterboard - HWRCs	387	24,413
Incinerated Medical - Medi waste	12	9,055
Offensive waste Medical - Medi waste	174	19,049
Inerts - HWRCs	3,283	52,531
Residual Waste - HWRCs	25,869	2,602,642
Collection Contracts	976	96,304
	208,172	14,797,289
Recycling Materials		
Green bin waste (net)	31,567	637,533
Brown bin (garden waste)	33,213	913,275
Garden waste - at HWRCs	6,900	189,159
Garden waste - Trade at HWRCs	1,170	30,886
Leaf Fall - collected by CNT	1,246	44,856
Street sweepings - collected by CNT	8,096	291,455
Timber - HWRCs	14,111	0
Food - collections	0	0
Tyres - HWRCs	50	53
Paint - HWRCs	373	156,377
Recycling Credits	701	57,915
Mineral Oil - HWRCs	59	28
Carpets - HWRCs	0	0
Books - HWRCs	60	1,218
Chemicals - HWRCs	300	33,495
Paper - HWRCs + bring banks	515	27,859
Cardboard - HWRCs + bring banks	2,433	(34,062)
Scrap Metal - HWRCs	2,968	(290,824)
Textiles - HWRCs + bring banks	542	(99,062)
Glass - HWRCs, bring banks and collection	10,134	132,332
Batteries - HWRCs and bring banks	64	(38,884)
Ink - HWRCs	0	(0)
Vegetable oil - HWRCs	12	(365)
Small Electrical (Weee) - HWRCs and bring banks	1,342	(40,874)
Totals	115,857	2,012,369
Grand Totals:	324,029	16,809,658

3. How this translates to the current city wide recycling rate as measure by DEFRA

Table C: The following table summarises our current city recycling rate, as defined by Government;

Covid note: the 2020/21 actuals shown in this table include the effect of Covid on tonnages/rates

Waste collection method	Tonnages		City Recycling Percentage	
	2019/20 Actuals tonnes	2020/21 Actuals tonnes	2019/20 Actuals rate	2020/21 Actuals rate
Green bins	29,751	31,567	9.8%	10.0%
Brown Bins	33,190	32,894	10.9%	10.4%
Food	736	0	0.2%	0.0%
Kerbside Recycling	63,677	64,461	20.9%	20.4%
Recycled via AWM/Veolia	6,856	7,174	2.3%	2.3%
Recycled Street Sweepings	8,280	6,438	2.7%	2.0%
HWRCs	27,243	19,111	9.0%	6.0%
Bring banks and Other	10,216	13,996	3.4%	4.4%
Total other	52,595	46,719	17.3%	14.8%
Totals	116,272	111,180	38.3%	35.1%