

<i>Performance Indicator Template</i>	
<i>Code</i>	SB5.3 (NI 192)
<i>Short title</i>	<p>Level of Household Recycling</p> <p>Longer Title: Percentage of household waste sent for reuse, recycling and composting</p>
<i>Rationale</i>	<p>The indicator measures percentage of household waste arisings which have been sent by the Authority for reuse, recycling, composting or anaerobic digestion. This is a key measure of local authorities' progress in moving management of household waste up the waste hierarchy, consistent with the Government's national strategy for waste management.</p> <p>The waste hierarchy ranks waste management options according to what is best for the environment. It gives top priority to preventing waste in the first place. When waste is created, it gives priority to preparing it for re-use, then recycling, then recovery, and last of all disposal (e.g. landfill)</p> <p>The Government expects local authorities to maximise the percentage of waste reused, recycled and composted. This indicator monitors an authority's performance in reducing the amount of waste that is sent to landfill, incineration or energy recovery.</p> <p>The Waste Management Strategy sets the future direction for waste, recycling and cleansing services, in order to deliver environmental improvements across the whole borough.</p> <p><u>Access the Waste Management Strategy online</u></p>
<i>PI Type</i>	Strategic
<i>New Indicator</i>	No

<i>Settings</i>	
<i>Collection Settings</i>	<ul style="list-style-type: none"> • Quarters <ul style="list-style-type: none"> • Calculation - None. Quarterly data is audited by wastedataflow in arrears. • Target Source - None • Years <ul style="list-style-type: none"> • Calculation - sum quarterly activated data • Target Source - Quarters
<i>Trend</i>	Trend Calculation Type: Year to Year Trend (compare the same period in previous years to calculate trend) because the amount of waste collected per household may be seasonal.
<i>Reporting Period</i>	Financial Year
<i>Data source</i>	<ul style="list-style-type: none"> • Monthly data from Cory Environmental Services and Bywaters, the contracted waste disposal and material recovery facility providers. • Quality assured in-house by the Environmental Services Technical Officer. • Uploaded onto Wastedataflow on a quarterly basis and officially verified by Wastedataflow.
<i>Gauge Format Type</i>	Aim to Maximise - high values are better than low values

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<i>Data type</i>	Percentage <i>With numerator, denominator</i>
<i>Year introduced</i>	2009
<i>Format</i>	Two decimal places

<i>Guidance / How to Measure</i>	
<i>Purpose</i>	Contributes to Strategic Plan Outcome 5: <i>People live in a borough that is clean and green.</i> See rationale
<i>Formula Guidance</i>	<p>Formula: $(X/Y) * 100$</p> <p>X = Tonnage of household waste collected by the authority (or on behalf of the authority) which is sent for reuse, recycling, composting or anaerobic digestion.</p> <p>Y = Total tonnage of household waste collected by the authority (or on behalf of the authority)</p> <p>The percentage of household waste arisings which have been sent by the authority for reuse, recycling, composting or anaerobic digestion.</p> <p>This was previously collected as BVPI 82a and 82b in 2007/08.</p> <p><i>'Household waste'</i> means those types of waste which are to be treated as household waste for the purposes of Part II of the Environmental Protection Act 1990 by reason of the provisions of the Controlled Waste Regulations 1992. The amounts deemed to be collected shall include:</p> <ul style="list-style-type: none"> • All waste collected by Waste Collection Authorities (WCAs) under Section 45(1) of the Environmental Protection Act 1990, <i>plus</i> • All waste arisings from Civic Amenity (CA) Sites established under Section 51(1)(b) of the Environmental Protection Act 1990, <i>and</i> • Waste collected by third parties for which collection or disposal reuse or recycling credits are paid under Section 52 of the Environmental Protection Act 1990. <p>For the avoidance of doubt <i>'Household waste'</i> <u>includes</u> waste from the following sources:</p> <ul style="list-style-type: none"> • Waste collection rounds (including separate rounds for collection of recyclates) • All waste listed under schedules 1 and 2 of the Controlled Waste Regulations. This includes: <ul style="list-style-type: none"> - Litter and refuse collected under section 89(1)(f) and waste arising from the discharge by a WCA/WDA of its duty under section 89(2) - this typically comprises street cleaning waste, park litter and gully sweepings - Bulky waste collections, where "bulky waste" is defined as <ul style="list-style-type: none"> • any article of waste which exceeds 25 kilograms in weight • Any article of waste which does not fit, or cannot be fitted into: <ul style="list-style-type: none"> (a) a receptacle for household waste provided in accordance with section 46 of the Environmental Protection Act 1990; or (b) where no such receptacle is provided, a cylindrical container 750 millimetres in diameter and 1 metre in length <ul style="list-style-type: none"> - Garden waste collections; - Household clinical waste collections. • Hazardous household waste collections; • Re-used waste material from household sources as defined below; • Clearance of any waste put out in contravention to section 46 of the EPA 1990 (e.g. 'side waste') • Any other household waste collected by the authority <p>Household waste does not include:</p> <ul style="list-style-type: none"> • Beach cleansing wastes (i.e. produced by the specific activity of cleaning up a beach)

- Rubble (including soil associated with the rubble)
- Clearance of waste deposited in contravention to Section 33 of the EPA 1990 (fly-tipped waste)
- Vehicles (whether abandoned or not)
- Grass cuttings, leaves etc in parks
- Gully emptyings collected by the authority under the Highways Act
- Incinerator residues (even if the residues are not landfilled)
- Home composted waste
- Trade waste

Tyres should only be counted if they are 'household waste', i.e. they are collected from a house or Civic Amenity Sites or taken directly from the vehicle. If in doubt, they should not be included.

'Civic Amenity Site' means places provided by the WDA at which persons resident in the area may deposit their 'household waste' (services provided under Section 51(1)(b) of the Environmental Protection Act or under the Refuse Disposal (Amenity) Act). Please note that materials collected at Civic Amenity Sites are only to be counted by disposal authorities except in the case of those London Boroughs and Metropolitan Districts which are not disposal authorities but which provide civic amenity sites under the Refuse Disposal (Amenity) Act.

Where an authority does not separate waste, they collect into household and commercial, figures must be based on a documented survey/study to ascertain the proportionate content of the waste. It is advisable to agree the sampling methodology with an external auditor in advance to ensure agreement on the adequacy of sampling.

'Recycling' means the reprocessing in a production process of the waste materials for the original purpose, or for other purposes, but excluding energy recovery.

This includes material collected for recycling by waste collection authorities (e.g. from kerbside collection, bring sites or street recycling bins), waste disposal authorities (e.g. from civic amenity sites), and by third party private/voluntary collections sent for recycling on behalf of the WCA/WDA

It excludes material collected for recycling which is subsequently rejected to disposal whilst under the possession or control of the WCA/WDA. Rejects may occur at collection, during sorting (e.g. at a Material Recycling Facility) or at the gate of the reprocessor. All recycling rejects should be excluded from the numerator.

Contamination Rates at MRFs: Where a MRF is used by a number of authorities to calculate the amount of waste sent for recycling, authorities may use the plant's overall contamination rate if there is no more accurate information on the individual authority's waste stream.

Recycling can include material within the residual waste stream that is subsequently separated out and sent for recycling. For example, recycle taken from residual waste sorted at transfer stations or Material Recycling Facilities (MRFs), recycling outputs from Mechanical Biological Treatment (MBT).

In order to be included in the numerator the waste must be delivered to, and accepted by, a company, individual or organisation which will reprocess waste that is in an acceptable form for inclusion in a recycling process. This includes waste that is exported for recycling (compliant with rules on the transfrontier shipment of waste).

'Composting' means the controlled biological decomposition and stabilisation of organic substrates, under conditions that are permanently aerobic and that allow the development of thermophilic temperatures as a result of biologically produced heat. It results in a final product that has been sanitised and stabilised, is high in humic substances and can be used as a soil improver, as an ingredient in growing media, or blended to produce a top soil that will meet British Standard BS 3882, incorporating amendment No 1. In the case of vermicomposting these thermophilic temperatures can be foregone at the point the worms are introduced. Output from a Mechanical Biological Treatment facility which is sent for composting, as defined above, can also be included in the numerator.

'Anaerobic Digestion' means, the biological decomposition and stabilization of organic substrates in the absence of oxygen and under controlled conditions in order to produce biogas and a digestate. It results, either directly or after subsequent aerobic treatment, in a

final product that has been sanitised and can be used as a soil improver, as an ingredient in growing media or blended to produce a top soil that will meet British Standard BS 3882, incorporating amendment No 1. If it meets the standards referred to above, then it should be included in this indicator.

Only waste delivered to and accepted by an individual or organisation (including central or community composting or anaerobic digestion facilities) that is in an acceptable form for inclusion in a composting or anaerobic digestion process can be included in the numerator. If the material delivered to these facilities needs to be sorted, then it is only the material sent into the composting process that is to be reported against this indicator. Where the treatment involves anaerobic digestion followed by composting (or vice versa) the tonnage is based on the quantity entering the first biological process. Home composting is not to be included.

'Reused items' means items removed from the municipal waste stream and specifically the household waste element for its original or a different purpose without processing or treatment in a waste recovery operation (other than for repairing or refurbishing). Items for reuse would come from material which has been discarded as household waste and is in the possession of a WCA/WDA, before being sent for reuse. It may also include items for reuse that are separated from the household waste stream by third parties on behalf of the WCA/WDA and/or for which reuse credits are paid. Reused items may come from:

- items from WCA/WDA bulky waste collections, kerbside collections;
- Items disposed of at civic amenity sites;
- items received and passed on by the WCA/WDA itself
- Items received and passed on by third parties working on behalf of the WCA/WDA.

Any reuse that is not done on behalf of the WCA/WDA should be excluded.

Where weighted tonnages of reused items are not available, the Furniture Reuse Network's set of average weights should be used (see link below):

Where relevant waste is collected in one year and recycled/composted in the next because there is a delay due to the need for further processing, e.g. refrigerators and freezers, count the collection and recycling/composting when they occur, even if they are different years.

Any household waste (regardless of the process it has been subject to) that is used for daily landfill cover or roads on landfill sites does not count as recycling/ reuse or composting.

How to Measure

Between data being entered into WasteDataFlow and it becoming the finalised version released to the public and passed to various statistical reviews, it must go through a number of checks to ensure its accuracy. The latter stages of this "data validation" are carried out by organisations external to Tower Hamlets. Before reaching this point a number of internal checkpoints must be passed and signed off to ensure that the data is accurate.

The levels which data moves through are shown below, as well as who is responsible for it at those levels. **Data will be acquired using authority's WasteDataFlow returns once the "data validation" reaches Level 35.**

Level of progression	Approved by
Level 0 - Level 10	Data Entry user - Local Authority
Level 10 - Level 20	Data Entry user - Local Authority
Level 20 - Level 30	Administrator user - Local Authority
Level 30 - Level 35	National Level 1 user - WDF
Level 35 - Level 40	National Level 2 user - Environment Agency
Level 40 - Level 50	National Level 3 user - DEFRA

The percentage rate is calculated as below:

For Unitary Authorities (UAs), percentage of household waste sent for reuse, recycling,

	<p>composting or anaerobic digestion is calculated as: $X/Y \times 100$, where: X = Tonnage of household waste collected by the authority (or on behalf of the authority) which is sent for reuse, recycling, composting or anaerobic digestion. Y = Total tonnage of household waste collected by the authority (or on behalf of the authority)</p>
<p><i>Worked Example</i></p>	<p>(This example is applicable to all reporting organisations)</p> <ul style="list-style-type: none"> • Household waste collected directly for recycling = 30,000 tonnes • Household waste rejected for recycling = 500 tonnes • Household waste sent for reuse = 300 tonnes • Household waste sent for composting = 8,000 tonnes • Recyclate sorted from residual waste MRF = 2,200 tonnes • Total household waste = 100,000 tonnes <p>$X = (30,000 - 500 + 300 + 8,000 + 2,200) = 40,000$ tonnes $Y = 100,000$ tonnes $X/Y \times 100 =$ $(40,000 / 100,000) \times 100$ NI 192 = 40.00%</p> <p>An example of the service's data collection spreadsheet is shown on page 10. Below there is an explanation on how the unverified household recycling rate is calculated (please see lines number of the spreadsheet sample on page 10.)</p> <p>Household recycling rate (line 47) = (Total household recycled, composted & reused (line 41) / Total household waste (line 42)) x 100</p> <ul style="list-style-type: none"> ○ Total household recycled, composted & reused (line 41) = RCC recycled and reused (line 7) + MRF recycled (line 6) + Textile reuse and recycled (line 11) + Dirty MRF recycled (lines 16, 17, 18, 19) + Mechanical Sweepings recycled (line 20) + RCC composted (line 10) + Food and Garden waste composted (line 9) ○ Total household waste (line 42) = Total household recycled composted and reused (line 41) + Dirty MRF residual waste (lines 25, 26, 27, 28) + Street Sweepings residual waste (line 29) + RRC residual (line 30) + Household general waste collections (line 31) + MRF rejects (lines 32, 33) + Food & Garden rejects (lines 34) + Clinical waste (line 35) + Gulley waste (line 36). <p>The methodology employed by WasteDataFlow to calculate the PIs can be downloaded from the WasteDataFlow website</p>
<p><i>What to look out for</i></p>	<p>Household waste is defined as waste from streets and parks and homes. There is no distinction, either in the collection method or the definition, of waste collected from people's homes and waste collected from the streets. Waste is everything put out - comprising of items that are for disposal (residual waste) and items that are for recycling.</p> <p>Monthly outturns are checked by the service and uploaded onto Wastedataflow on a quarterly basis, after which they are verified. There will therefore be a disparity between the sum</p>

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	<p>of the monthly unaudited data and the audited quarterly outturn.</p> <p>The waste disposal and materials recovery facility services are currently contracted out. Changes to these contracts may impact on the way the measure is collected, collated, calculated and reported and the frequency.</p>
<i>Other Guidance</i>	<p>See full government guidance note - WasteDataFlow: http://www.wastedataflow.org/htm/datasets.aspx http://www.wastedataflow.org/documents/guidancenotes/Specific/GN63_Question_100_Data_Entry_v2.0h.pdf</p>
<i>Scope / Data Source</i>	<p>Responsible Officer (Data owner and collator) = Richard Williams</p> <p>Data supplied by:</p> <ol style="list-style-type: none"> 1. Elena Samitier, Environmental Services Technical Officer - Waste Management, Operational Services 2. Catherine Cooke, Environmental Improvement Team Leader, Operational Services 3. Fiona Heyland, Environmental Services Improvement Manager, Operational Services 4. Richard Williams, Business Manager Operational Services 5. Bywaters 6. Cory 7. Scope
<i>Other notes</i>	<p>Is the measure cumulative? Yes</p>

<i>Data Quality</i>	
<i>PI Accuracy of Information</i>	<p><i>What governance checks are undertaken by services or third party to assure accuracy?</i></p> <p>The checks to assure accuracy of data: Composition analysis review undertaken in May 2018 by 'Resource Futures'. Composition analysis used to calculate percentage of recyclable materials into Cory / McGraths by type (eg. 5% paper, 2% glass etc). A review of the composition is likely to be undertaken on a bi-annual basis.</p> <p>External Procedure: Cory's / McGrath's: Loads weighed (weighbridge) to provide tonnage received. Composition analysis applied for calculation as described above and sent to LBTH Waste Team on a monthly basis. Bywaters: Loads weighed (weighbridge) to provide tonnage received. Assessment of percentage of load contaminated undertaken and evidence provided to LBTH on regular basis for scrutiny. Calculation to extract percentage of contaminated load from overall load weight undertaken. Data received from external contractors, as per the service level agreements and validated monthly.</p> <p>Internal Procedure: Quality checks undertaken by Environmental Services Technical Officer and Team (example: IT controls, spot checks on site (at Bywaters), sampling, reviewing unexpected data).</p> <p>Inbuilt controls and validation on WasteDataFlow upload.</p>
<i>PI Collections Systems and Procedure Notes</i>	<ul style="list-style-type: none"> • On a monthly basis, the Environmental Services Technical Officer receives, through the contractor's online platform, management information in the form of an excel spreadsheet. Management information consists of the tonnes of waste collected by type. • Data is quality assured by the Environmental Services Technical Officer (see PI accuracy of information). The composition analysis is undertaken by the contractors prior to making the data available. • Information is entered onto an internal data collection spreadsheet (example screenshot

- page 10).
- The Performance Indicator (unverified) is calculated as explained in the formula guidance section
 - This unverified monthly data is used by management for monitoring and contract management purposes
 - On a quarterly basis, the sum of three months of data is submitted by the Data Entry User in to Wastedataflow (Elena Samitier). WDF will calculate N192 based on the information given.
 - Once the data is validated by Wastedataflow (to Level 35), the Council will be able to access the validation report with the NI192 included via Wastedataflow portal.
 - The table below shows the progression of data through WasteDataFlow for English Authorities.

	Quarter 1 (Apr-Jun)	Quarter 2 (Jul-Sep)	Quarter 3 (Oct-Dec)	Quarter 4 (Jan-Mar)
LA data submission deadline (lv30)	30th Sept	31st Dec	31st March	30th June
Stage 1 validation (Lv35)	End Oct	End Jan	End April	End July
Stage 2 validation	End Nov	End Feb	End May	End Aug
Data received by Defra	End Dec	End March	End June	End Sept
Publication of final results (annual figures Lv40)	Nov / Dec	Nov / Dec	Nov / Dec	Nov / Dec

NI192: Percentage HH waste sent for Reuse, Recycling or Composting (Provisional)

	Q1 2020/21	Q2 2020/21	Q3 2020/21	Q4 2020/21	Annual Total 2020/21	
HH waste sent for recycling, reuse or composting	4,036.61	4,364.10	-	-	8,400.70	tonnes
Total HH Waste Collected	23,242.71	21,875.67	-	-	45,118.38	tonnes
Reuse, Recycling and	17.4%	19.9%	-	-	18.6%	per cent

Third Party Information

The Council's waste data contracts include checks in place to ensure data is accurate. The contract includes data sharing. GDPR is not applicable as no personal information is collected.

Ownership

<i>Portfolio Holder</i>	▪ Cabinet Member for Environment
<i>Divisional Director</i>	Divisional Director Public Realm
<i>IP Lead</i>	Vicky Allen
<i>SP Lead</i>	Andy Simpson
<i>SP Lead (Deputy)</i>	Abidah Kamali

Targets (see below)

<i>Current target</i>	Internal target, 2020-21 is 22%
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Benchmarks

<i>Data Source</i>	What is the source of the benchmark? Wastedataflow on a [quarterly/annual basis]
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<i>Coverage</i>	<i>What are we benchmarking against i.e. national, England, London, specific benchmark group (specify who that includes)?</i> England-wide data so any comparators can be chosen.
<i>Availability</i>	<i>When is the benchmark data available? What frequency and what is the time lag if any? For example, does the benchmarking come at the same time as our outturn or is there a time lag (ie. a quarter in arrears)?</i> One Quarter in arrears from Wastedataflow
<i>Benchmark commentary</i>	<i>Is there any commentary relevant to the Benchmark that we should include in the commentary when we report, i.e., commentary that would aid understanding of the benchmark?</i> Officers should take account of characteristics of the borough when benchmarking against other LAs.

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An example of the service's data collection spreadsheet.

	A	B	C	D	E	F	G	N	O	R
1	Household Waste									
2										
3	Recycling									
4										
5		Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Qrt1	Qrt2	Total
6	Bywaters- Co mingled recycled	581.21	787.89	776.00	865.67	618.66	877.43	2145.10	2361.76	9279.83
7	RRC - Recycled and Reused	6.76	17.84	60.58	46.47	46.53	59.77	85.18	152.77	493.58
8	RRC- Rubble	0.00	0.00	27.33	17.08	22.28	18.60	27.33	57.96	150.81
9	Envar- Food and Garden waste composted	161.65	64.35	61.60	54.93	50.87	84.03	287.60	189.82	999.38
10	RRC Composted	0.00	5.88	10.53	9.23	9.94	9.74	16.41	28.91	71.66
11	Textiles- reused/recyded	40.88	42.12	44.57	44.66	43.03	46.33	127.57	134.02	551.08
12										
13	Residual Recycling									
14										
15		Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Qrt1	Qrt2	Total
16	McGrath- Bulky Recyled	40.07	47.59	101.54	107.87	101.77	124.24	189.20	333.89	1054.82
17	McGrath-Contaminated recycling recovered	0.00	0.00	9.63	34.33	19.64	8.30	9.63	62.27	159.27
18	McGrath - Street Cleansing recovered	116.42	135.60	143.21	107.41	115.09	112.48	395.23	334.98	1312.33
19	McGrath - URS residual waste recovered	135.85	154.15	159.00	160.39	140.03	152.43	449.00	452.86	1694.79
20	SweepTech- Mechanical Sweepings recovered	82.37	85.42	89.41	98.82	102.39	91.83	257.19	293.04	1305.65
21										
22	Residual									
23										
24		Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Qrt1	Qrt2	Total
25	McGrath- Bulky	20.69	26.99	57.42	61.05	55.93	61.81	105.10	178.78	565.41
26	McGrath-Contaminated recycling	0.00	0.00	2.85	10.15	5.80	9.36	2.85	25.31	116.93
27	McGrath - Street Cleansing	117.44	137.14	144.75	107.93	116.47	112.06	399.33	336.45	1323.94
28	McGrath - URS residual waste	253.07	287.17	296.20	298.79	260.87	283.97	836.44	843.62	3190.93
29	SweepTech- Mechanical Sweepings	38.05	39.46	41.30	45.65	47.31	44.48	118.82	137.44	599.98
30	RRC -residual waste	0.00	23.14	93.85	107.97	115.90	100.72	116.99	324.59	947.10
31	Residual HH waste (Kerbside/Communal/ Schedule 2)	5608.62	5803.13	6180.67	5480.33	5387.96	5511.12	17592.42	16379.41	66976.95
32	Bywaters - Gate rejects	0.00	13.28	10.77	0.00	0.00	0.00	24.05	0.00	30.49
33	Bywaters - Through the MRF rejects	136.69	268.68	303.64	211.17	286.21	238.47	709.01	735.85	3155.28
34	Envar - F&G rejects	1.63	0.65	0.62	0.55	0.51	0.85	2.91	1.92	10.09
35	SRCL - Clinical Waste	3.64	2.07	2.01	0.00	1.24	0.67	7.72	1.91	18.14
36	Gully residual	13.64	9.36	10.60	30.18	15.96	31.28	33.60	77.42	311.90
37										
38	Summary Figures									
39										
40		Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Qrt1	Qrt2	Total
41	Total Household recycled, composted and reused	1165.20	1334.96	1445.54	1520.55	1238.02	1556.85	3945.71	4315.42	16850.72
42	Total Household waste	7105.60	7658.86	8318.51	7582.45	7287.79	7676.90	23082.97	22547.14	90940.82
43										
44	Performance Indicators									
45										
46		Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Qrt1	Qrt2	Total
47	NI 192 Recycling Rate	16.40%	17.43%	17.38%	20.05%	16.99%	20.28%	17.09%	19.14%	18.53%
48										