



Harborough's Rubbish 2021

NOVEMBER 8TH

Harborough, Oadby & Wigston Green Party
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Cover image courtesy of Gary Horn

Foreword

When is Recycling, recycling?

The [waste hierarchy](#) is one of the fundamental elements of the European waste management policy. Enshrined in the Waste Framework Directive, and transposed into UK law in the Waste (England and Wales) Regulations 2011 ('the 2011 Regulations')

Most attention has been focused on the requirement under [Regulation 13](#) to separately collect dry recyclables, subject to the so-called "TEEP test". Many local authorities have carried out assessments – of [variable quality](#) – to check that the waste services they provide for residents are compliant with this requirement. However, outside the [Waste Regulations Route Map](#), rather less attention has been paid to the significant implications of [Regulation 12](#) and the application of the waste hierarchy.

Regulation 12 applies to anyone who "imports, produces, collects, transports, recovers or disposes of waste" and to waste dealers and brokers – pretty much everyone. It requires them to "take all such measures available... as are reasonable in the circumstances" to apply the familiar priority order:

- Prevention
- Preparation for re-use
- Recycling
- Energy recovery
- Disposal

Departing from the hierarchy is allowed only where this would achieve a better overall environmental outcome (e.g. the use of anaerobic digestion (AD), classed as energy recovery, to treat food waste in preference to composting, a form of recycling). Such departures should be justified by life-cycle thinking regarding the overall impacts of the generation and management of the waste, taking account of factors including environmental protection, technical feasibility, economic viability, resource protection, health and social impacts.

Extract from article [9] by Peter Jones (<https://www.isonomia.co.uk/waste-hierarchy-compliance-a-tick-box-exercise>)

"Commingled collection of recyclable material is allowed if it is not necessary to provide high quality recyclate, or unless it is not technically, environmentally or economically practicable (TEEP)."

The Waste Hierarchy is the UK implementation of the EU waste framework directive, which at its heart, seeks to ensure that recyclable materials are collected in a way that ensures they can be recycled without contamination issues. [1]

It also recognises that it is not always cost effective or practicable to insist on separate collections. To this end there is the provision for a TEEP (Technical, Environmental, Economical and Practical) test. This was aimed at the understanding that a community at the top of a mountain range, or a town of Medieval construction with narrow streets that are too small for trucks to navigate, may be unpracticable and too expensive to service with a full recycling scheme.

When implemented into UK law the Waste Hierarchy was created but little or no guidance issued on how councils should implement this in their waste collection services. This resulted in many councils just opting for the cheapest collection process, which in most cases is single stream comingled collection where a single bin is provided for all acceptable items. This resulted in a Judicial review being issued by the Campaign for real recycling but as the EU had clarified its position[8] this found that Co-mingled collection was allowed [7].

This is where the vagary of the law and guidance plays out, the EU clarification states that **“comingled collections will be allowed, provided high quality is achieved”**, and councils seemingly ignore the recycling industry complaints about contamination rates [4][5][6] and class the output of MRF (Materials Recycling Facilities) as of “Good Quality”. With no one to say otherwise and with Councils not collecting any data on the quality of the recycle’s themselves, why wouldn’t they!

As a result, it is arguable that much valuable recycle that should have been recycled has been lost due to contamination or being down-cycled into lower grade materials rather than recycled as the same material, so much so that the government has accepted that TEEP is not working [2][9] and so propose dropping the “Economically viable” test [3].

In our case, Harborough District Council is the collecting authority and Leicestershire county Council is the disposal authority. This means all recycling is transferred from a waste collection contractor to the waste processor, in this instance Casepak.

This disconnect means that the district council has little interest in the quality of the output from the waste processor and anything it transfers to the contractor is classed as recycled. Box ticked.

Ultimately this situation cannot be blamed on the council but is however a symptom of the central governments deliberate “Austerity Agenda”. When councils are so starved of funds of course they will seek the cheapest options to provide statutory services.

All is not lost, as part of the new “Environment Bill”[13] the government has been talking of standardising collections systems around the country and ensuring the separate collection of different recyclable materials. As this whole situation has been caused by poor law making and a lack of central government guidance the devil will be in the detail but again, without funding the councils to do this the cost will fall at the door of the council tax payers [14]

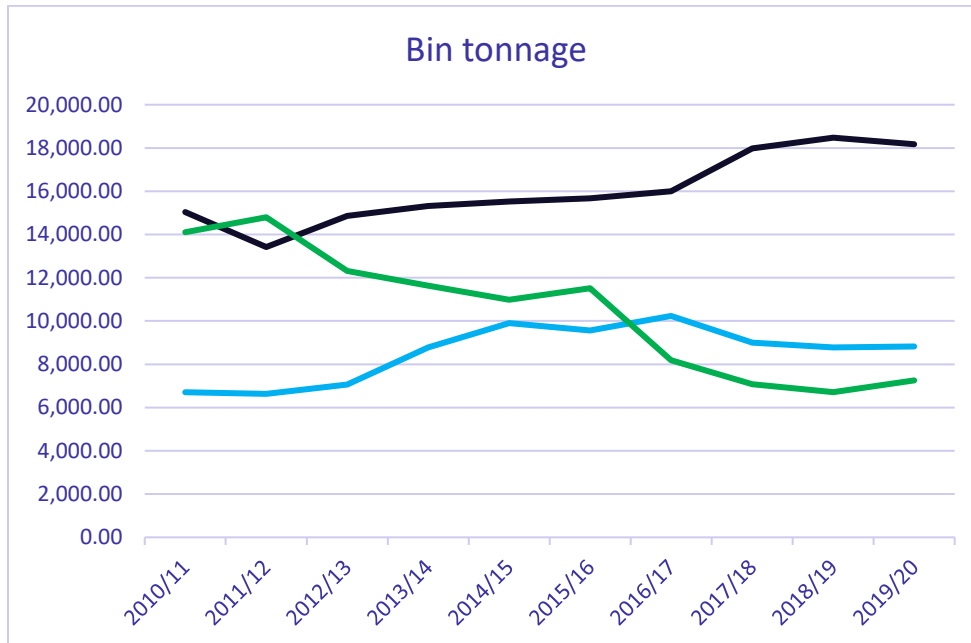
That said though, year on year Harborough District councils recycling performance has been dropping.

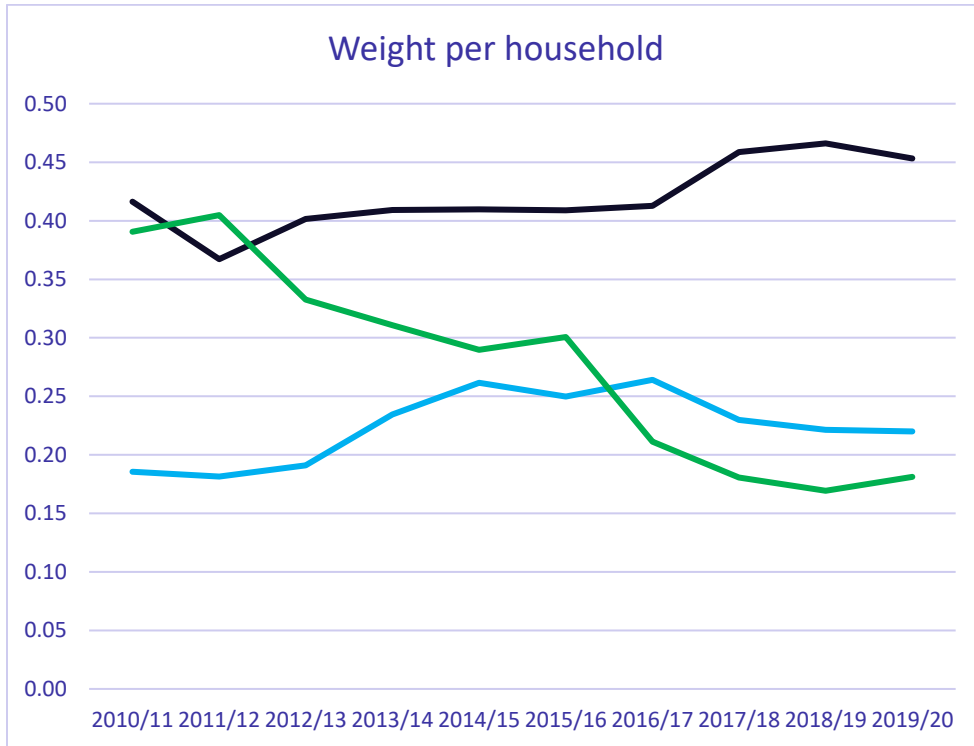
Total tonnage

Looking at the total tonnage of collections, there is a clear correlation (although offset by a year, which may be to do with the data collection regime) between the scrapping of the free Green Bin service and the increase in general waste.

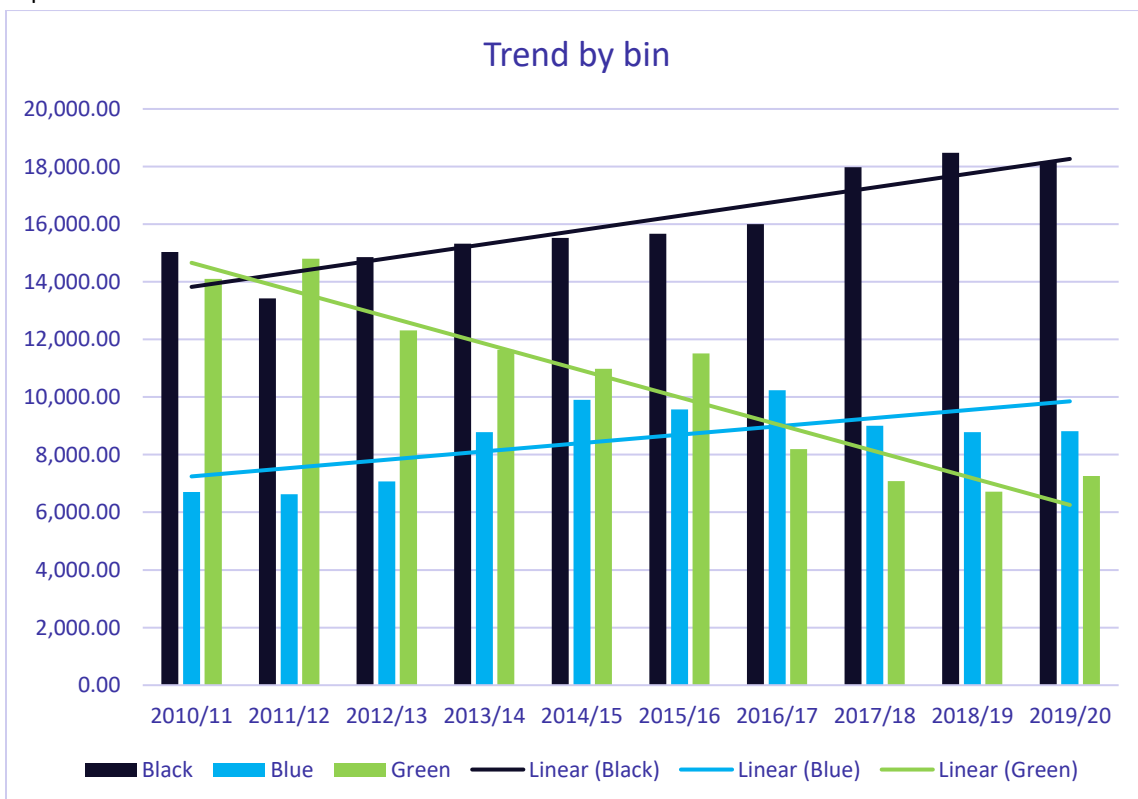
Worryingly, there also seems to be a drop in the usage of the Blue Bins at the same time. **Could the scrapping of the Green Bin scheme have sent a social cue that recycling is not valuable?**

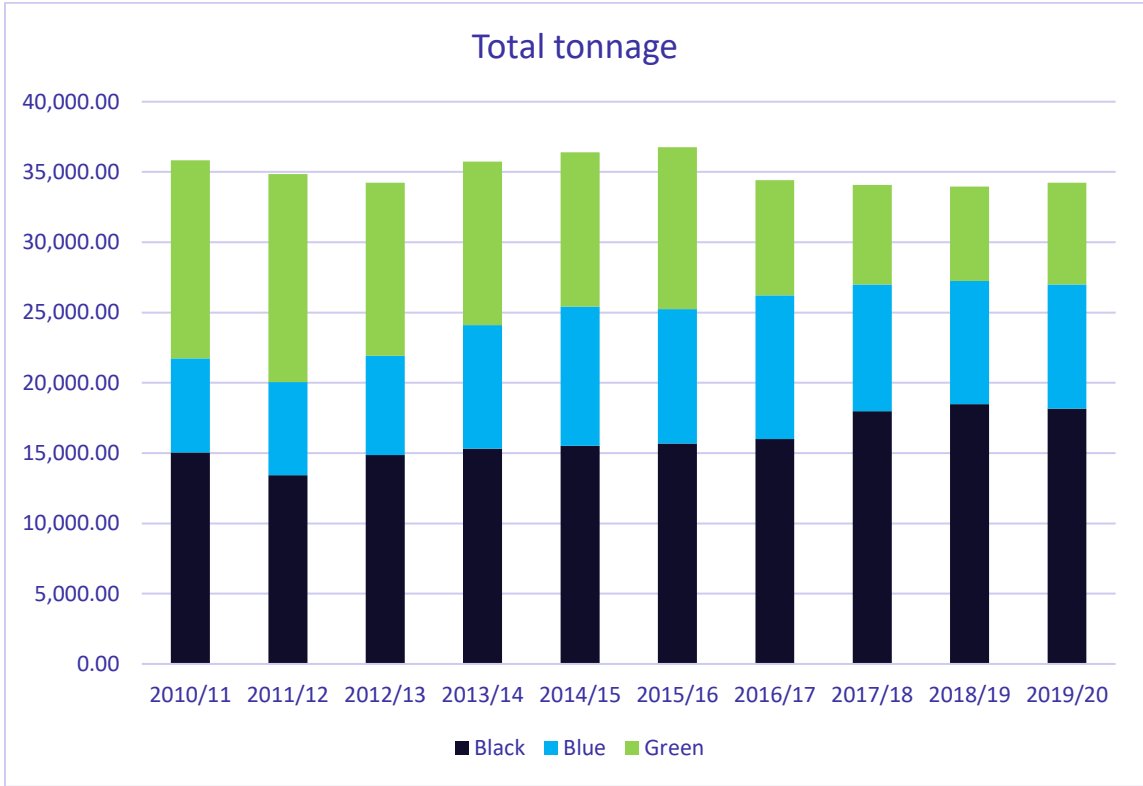
In the last year there seems to have been an uptick of 546.64 tons on Green waste collections which may, in part, explain the slight dip in General waste collections.



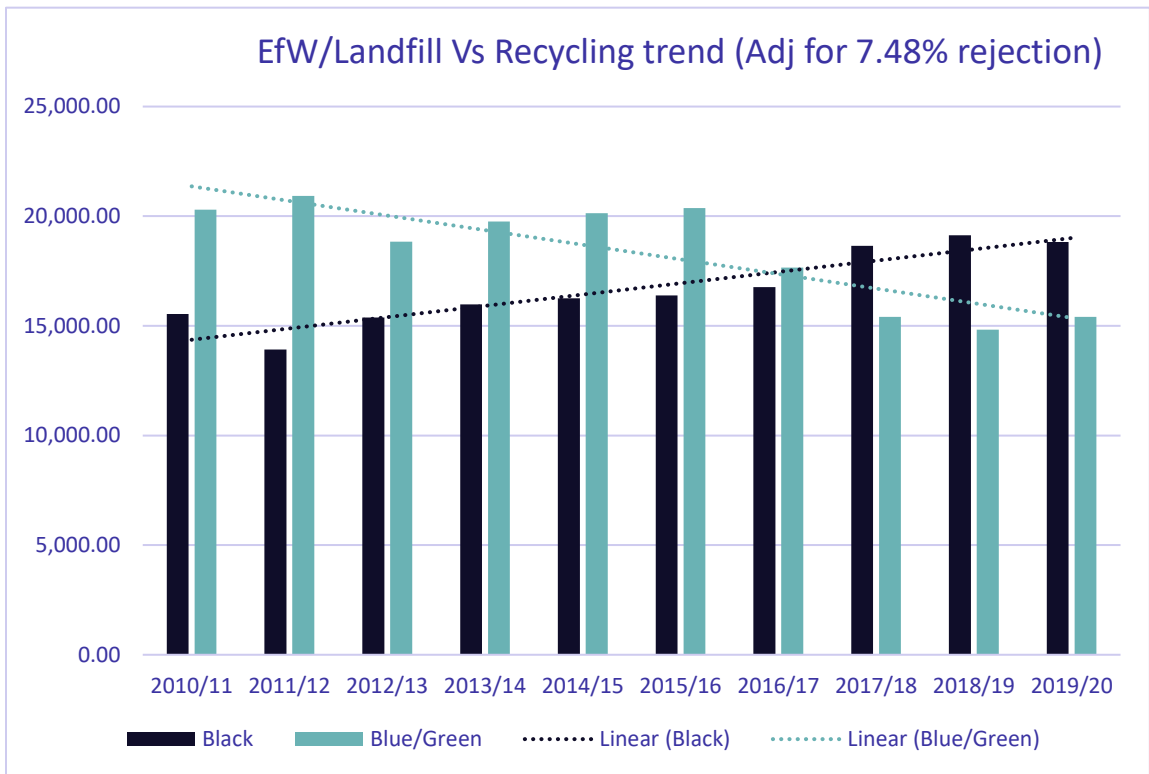
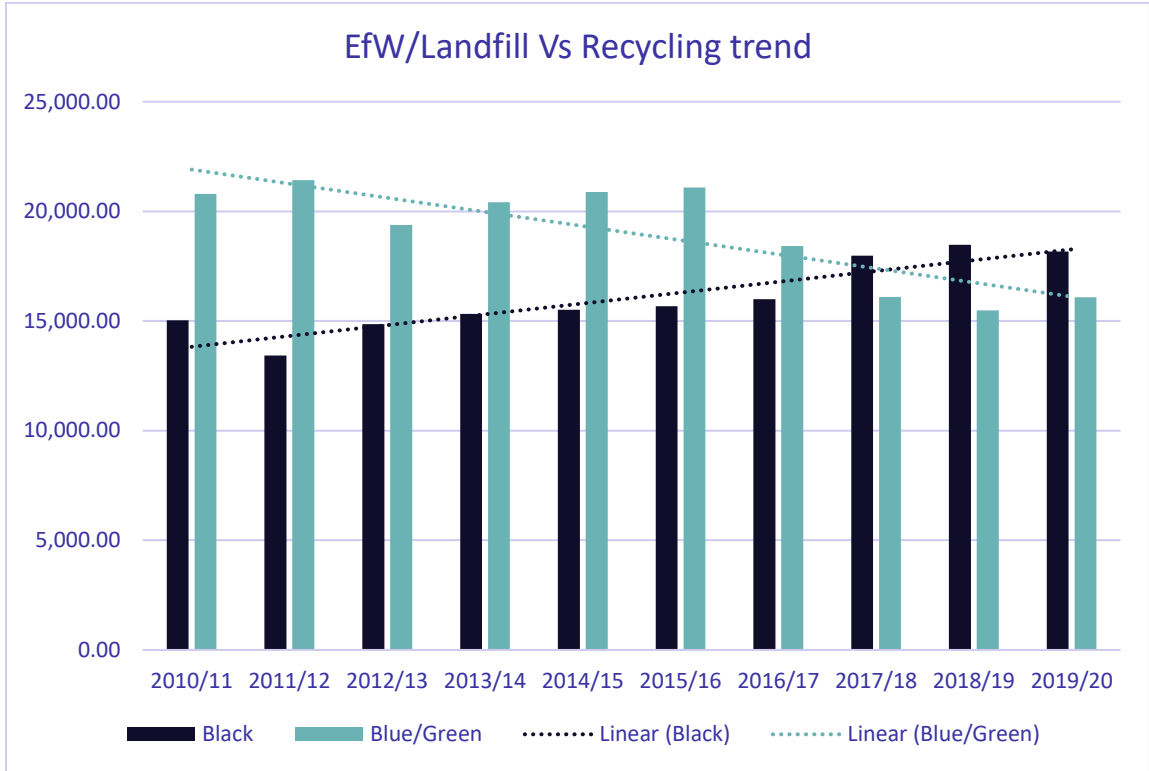


Over the 10 year period of the data supplied the trend lines show that General waste has been increasing year on year while recycling and Green waste collections have been reducing so, although total tonnage collected is at the lowest since 2012/13, one can deduce that more recycle's are being placed in the black bins and that the majority of Green waste is being dumped or dealt with within the household itself.





When it comes to the strategy of diverting waste away from Landfill, the council is obviously failing as the amount diverted has been consistently dropping alongside a rise in the amount going to landfill/incineration.

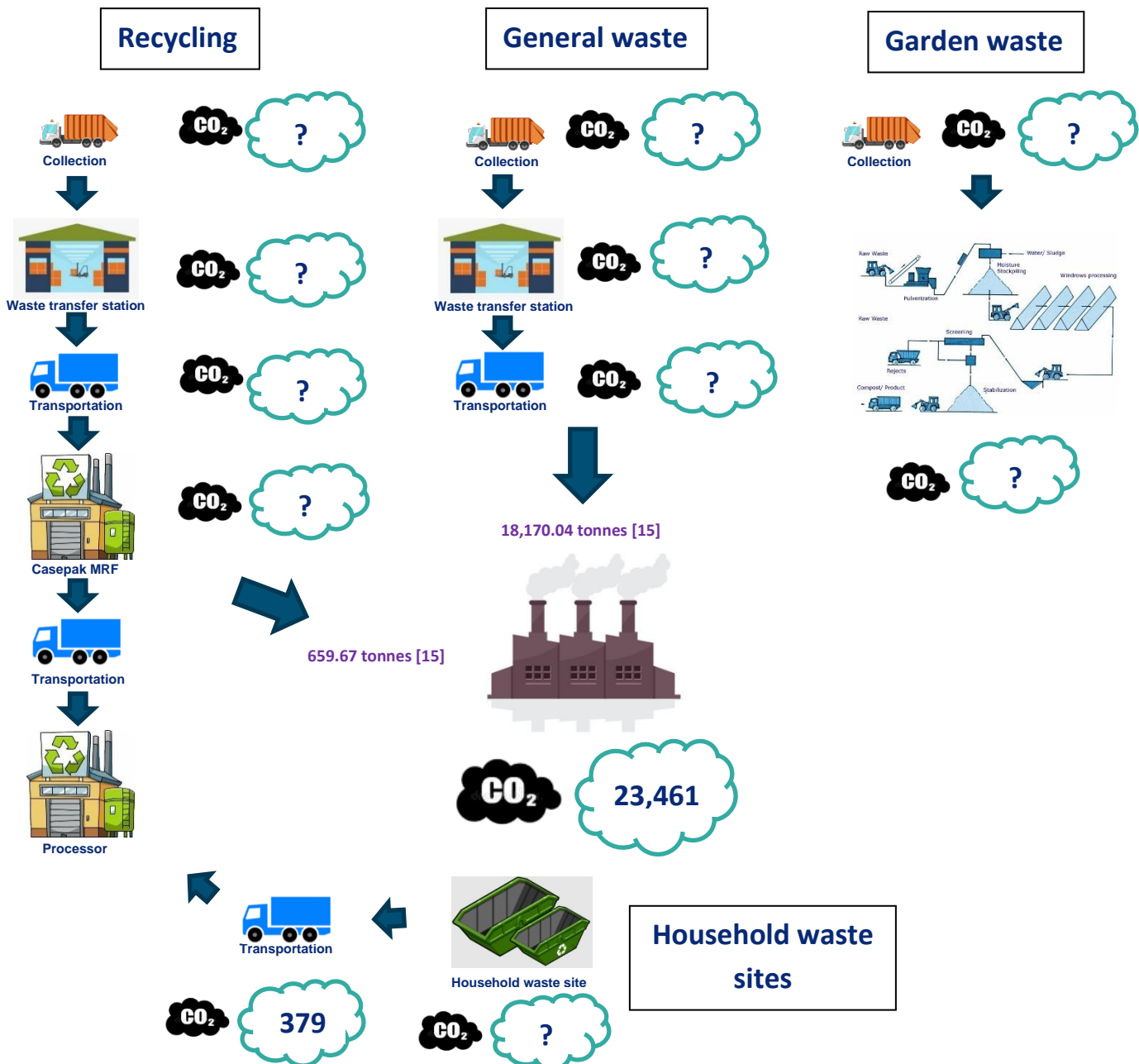


CO2e emissions from the waste process (A picture saves a thousand words!)

After a series of FOI requests it is apparent that even 2 years after declaring a Climate Emergency plan that these basic steps of collecting consumption data in the form of fuel usage, have not been enacted.

FCC do not provide an email and Casepak did not respond to my query. I find the fact that both councils declared "Climate Emergencies", Harborough District Council 24/6/2019 and Leicestershire County Council 15/5/2019, and the fact that there are no figures available for the current emissions of the waste system incomprehensible and inconsistent with the declared Climate Emergencies. Having worked in the business world all of my career the first question asked at the team meeting after the declaration would have been, "What are our current emissions and if we don't know, what kind of framework can we implement to collect these data?"

Apparently, this has not happened. These basic metrics would be the baseline for any future improvements and must surely also be part of controlling costs within the service. After all, as they say, "what gets measured gets managed!"



FOI Responses

Waste collection is a commissioned service and is currently contracted to FCC.

I asked Harborough District Council if they held data on the following which would show the CO2e emissions of the waste handling service.

I asked:

“Would you be able to provide the annual diesel/petrol usage figures for the waste collection contractors from 2010 to date.

Collection fleet

Transfer stations, such as the site on Welam lane.

Waste transfer activities.”

Their response was this, it is not clear if this inconsistent set of figures even relates to the waste collection service.

year	Diesel in litres	Tonnes of CO2*
2013/14	367,227.75 (including grounds maintenance and streets)	969.48
2014/15	356,000.9 (including grounds maintenance and streets)	939.84
2015/16	340,762.81 (not including grounds maintenance and streets	899.61
2016/17	255,689.48 (not including grounds maintenance and streets)	675.02
2017/18	311,193.0 (includes grounds maintenance and streets)	821.54
2018/19	318,363.58 (includes grounds maintenance and streets)	840.47
2019/20	337,734.39 (includes grounds maintenance and streets)	891.61
2020/21	275,116.27 (not grounds and streets)	726.30

* Various internet resources put the weight of CO2 per liter as between 2.62kg and 2.68kg, I will use the definition found here: *1 liter of diesel weighs 835 grammes. Diesel consist of 86,2% of carbon, or 720 grammes of carbon per liter diesel. In order to combust this carbon to CO₂, 1920 grammes of oxygen is needed. The sum is then 720 + 1920 = 2640 grammes of CO₂/liter diesel.*

<https://ecoscore.be/en/info/ecoscore/co2>

I asked Leicestershire County council :

Can I have the diesel/petrol usage figures for the County councils waste handling operations for 2010 to date under the following sections please.

1a. Waste transfer from district/borough council transfer sites

Information not held

1b. Waste transfer from household waste sites The liters of diesel used by the Council's vehicles that collect waste from the household waste sites is provided in the table below.

Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total	Tonnes
2017/18	No Data	No Data	No Data	10242	17702	15054	13093	14176	9248	13688	12917	13088	199207	314.71
2018/19	15196	18494	16024	14204	16448	13877	16515	15675	13131	11739	5477	15052	171835	453.64
2019/20	15535	16884	10978	16272	16197	15679	14045	9356	13477	15576	13995	14230	168225	444.11

2020/21	5665	7980	15095	13954	14711	14464	11206	12685	12049	11975	10960	12876	143621	379.15
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Data is not held prior to July 2017 as all of the Household Waste Recycling Centre (HWRC) associated transport was operated by a third-party contractor. The data provided does not include fuel usage of third-party hauler's who collect materials, from mobile plant used at waste transfer stations and any associated onward bulk haulage from the Household Waste Recycling Centres, as this information is not held.

2. Energy consumption of the Case Pak site, apportioned separately to Harborough District & Oadby & Wigston Borough by percentage of total volume processed from each authority.

Information not held.

3. Diesel/petrol/LPG used on the Case Pak site for waste handling, this includes company cars etc as part of the carbon cost of the operation.

Information not held.

4. Transfer of separated waste to processors, if they don't collect.

Information not held

5c. The tonnage of residue which and how was disposed of via Landfill/incinerator (Count RDF (Refuse Derived fuel) as incinerated) and a standardised annual CO2e figure for each

For clarity, the response provided is tonnage delivered into Casepak by the Council and is not the total outputs of the Casepak facility.

RDF (incinerated) 6,194 tonnes* (x 1246KG of CO2) = 7,717.72 tonnes of CO2

*Data for 2020-21 (process rejects)

	Black	Blue	Green	Blue/Green	Household	Black	Blue	Green	Plastics	Glass	Paper/car	Ferrous	Ali		
2010/11	15,034.08	6,700.91	14,100.94	20,801.85	36,110.00	0.42	0.19	0.39	745.8113	2025.015	3096.491	333.0352	500.558	Plastics	11.13
2011/12	13,420.76	6,632.63	14,796.74	21,429.37	36,551.00	0.37	0.18	0.40	738.2117	2004.381	3064.938	329.6417	495.4575	Glass	30.22
2012/13	14,853.04	7,067.48	12,308.74	19,376.22	36,992.00	0.40	0.19	0.33	786.6105	2135.792	3265.883	351.2538	527.9408	Paper/Car	46.21
2013/14	15,319.19	8,780.65	11,632.51	20,413.16	37,433.00	0.41	0.23	0.31	977.2863	2653.512	4057.538	436.3983	655.9146	Cans	4.97
2014/15	15,519.39	9,905.02	10,976.88	20,881.90	37,874.00	0.41	0.26	0.29	1102.429	2993.297	4577.11	492.2795	739.905	Ali	
2015/16	15,672.97	9,567.21	11,516.90	21,084.11	38,315.00	0.41	0.25	0.30	1064.83	2891.211	4421.008	475.4903	714.6706		
2016/17	15,998.19	10,234.67	8,189.36	18,424.03	38,756.00	0.41	0.26	0.21	1139.119	3092.917	4729.441	508.6631	764.5298		
2017/18	17,981.23	9,005.87	7,084.86	16,090.73	39,197.00	0.46	0.23	0.18	1002.353	2721.574	4161.613	447.5917	672.7385		
2018/19	18,476.57	8,776.65	6,711.41	15,488.06	39,641.00	0.47	0.22	0.17	976.8411	2652.304	4055.69	436.1995	655.6158		
2019/20	18,170.04	8,819.10	7,258.05	16,077.15	40,082.00	0.45	0.22	0.18	981.5658	2665.132	4075.306	438.3093	658.7868		

The original source responses

FOI request 1

Black bin waste collection

I would like to know which facility handles our black bin waste and the process used. Waste from the black bins goes to landfill, the site most used by HDC is Cotesbach Landfill. A small proportion of the waste goes to waste transfer stations, namely Biffa's site in Syston and Mick George's site in Rushton. From these sites, the waste will be transferred to an end destination such as the FCC landfill site in Bubbenhall or The Coventry & Solihull Waste Disposal Company's energy from waste site in Coventry.

Is there any attempt to reclaim any recyclables or organics? No.

Where does any residue end up, land fill or incineration? N/A

The total collected

2010/11: 15,034.08

2011/12: 13,420.76

2012/13: 14,853.04

2013/14: 15,319.19

2014/15: 15,519.39

2015/16: 15,672.97

2016/17: 15,998.19

2017/18: 17,981.23

2018/19: 18,476.57

2019/20: 18,170.04

Single stream, comingled recycling collection

I would like to know which facility handles our blue bin waste and the process used.

The recyclable materials that are collected from the blue-lidded bins is first taken back to the FCC Environment depot in Great Bowden. From there, the recycling collected is transported in bulk to the Casepak Mixed Recycling Facility (<http://casepak.co.uk/>) in Leicester to be sorted and sent on to companies that re-purpose/re-process the materials. Any non-recyclable items will be removed at Casepak, re-processed and turned into a Solid Recovered Fuel that is used as a replacement fuel to coal.

The total collected

2010/11: 6,700.91

2011/12: 6,632.63

2012/13: 7,067.48

2013/14: 8,780.65

2014/15: 9,905.02

2015/16: 9,567.21

2016/17: 10,234.67

2017/18: 9,005.87

2018/19: 8,776.65

2019/20: 8,819.11

The total reported as recycled, by material

Our recycling service is for mixed recyclables, this is then taken to an MRF which accepts recycling from a variety of sources. The tonnage we deliver is recorded and an estimate is given on the composition of a month of recycling based on samples taken. Therefore we don't hold information on the exact tonnage of each material type.

For reference, the most recent estimated split (July 2020) is typical of the usual composition and is as follows:

Plastics: 11.13% of total tonnage.

Glass: 30.22% of total tonnage.

Paper and cardboard: 46.21% of total tonnage.

Cans and Ferrous Scrap: 4.97% of total tonnage.

How much is rejected downstream as contaminated and how/who accounts for this:

Our contamination rate during the same period was 7.48%, the contaminating items are sorted out at the MRF as mentioned above. There is an ongoing campaign county wide at the moment aiming to reduce the amount of recycling contamination.

The total residue from this process

To landfill- N/A.

To incineration- N/A.

Green bin garden waste collection

The total collected

2010/11: 14,100.94

2011/12: 14,796.74

2012/13: 12,308.74

2013/14: 11,632.51

2014/15: 10,976.88

2015/16: 11,516.90

2016/17: 8,189.36

2017/18: 7,084.86

2018/19: 6,711.41

2019/20: 7,258.05

Where these functions sit with Leicestershire County Council can you please supply a contact details. It is worth noting that Harborough District Council are the waste collection authority and therefore responsible for collecting the waste, Leicestershire County Council are the waste disposal authority and arrange which disposal sites etc. are used. I have answered the questions above, but if more information is required regarding disposal then you may wish to contact Leicestershire County Council:

- Email foi@leics.gov.uk

- Write to Freedom of Information, Business Support Services, Corporate Resources, Room 174, County Hall, Glenfield, LE3 8RA

If possible, can these figures be for the last 10 years as I am interested to see the affect of charging for the collection of green waste on the black and green bin. If possible, can you supply the number of households collected from in the same periods in order to calculate per household rates.

2011 census recorded 36,110 households in the district. Total dwelling stock figure on 31.03.2019 was 39,641.

Request to CasePak

Hi there,

I am looking into the CO2 emissions of the Leicestershire waste stream, primarily Harborough District council, and wondered if you could supply me with some baseline figures on your energy usage. If possible, can these be apportioned by the percentage of your total volume that comes from Harborough District Council, if HDC is 10% of your volume then apportion to 10% of your energy use. If you use a Green tariff then let me know otherwise I will use grid CO2 intensity.

ONSITE

Onsite electricity usage, apportioned

Onsite CNG usage, apportioned

Onsite LPG usage, apportioned

Onsite diesel usage in litres, apportioned (please include company cars/vans as these are still part of the operation)

Onsite petrol usage in litres, apportioned (please include company cars/vans as these are still part of the operation)

MATERIALS TRANSFER

I am not sure who performs which function in the recycling lifecycle but if possible could you supply the following

Diesel (in litres) usage during transfer of material from the transfer stations to CasePak

Diesel (in litres) usage during transfer of material from the transfer stations from CasePak to the recyclers/wholesaler/forwarder.

Could I also have a clarification on the volume to RDF from the process, I have figures for contamination 7.48% of the volume from HDC and the separated volumes but there is not mention of residue which would infer a 100% separation.

Best regards

Darren Woodiwiss

Request to FOCSA

Hi there,

I am trying to build a picture of the CO2 emissions created in the waste handling services of Harborough District Council and wondered if you would be willing to share some simple information with me. I have been asking the councils for figures over the last 10 years but as many years as you can supply would be appreciated.

Could you answer

How many litres of diesel are used

Street collections of recycling

Street collections of General waste

Street collections of Green waste

Electricity usage in the transfer stations Welam/Theddigworth

Diesel used onsite in the transfer stations

LPG/CNG used onsite in the transfer stations

How many litres of Diesel used transferring Recycling to CasePak

How many litres of Diesel used transferring general waste to Incineration

How many litres of Diesel used transferring Green waste to the composting sites

FOI to Leicestershire County Council on Green waste and household waste sites

Hi there,

I am wondering if you hold the details for the following

Electricity use at your household waste sites, by site please.

Is this electricity on a Green tariff, if so which one else I will use the standard grid CO2 intensity figures.

Diesel use, in litres, on these sites

Electricity use at your Green waste composting sites, by site please.

Diesel use, in litres, on these sites

Material transfer, if the council transfers the materials to/from these sites (You have already supplied the figures for the household sites) please specify the activity and the litres of Diesel used.

References

[1] Environment Agency prepares stance on TEEP and commingling

<http://lcrn.org.uk/environment-agency-prepares-stance-teep-commingling/>

[2] TEEP assessments lead to little change in waste collections

<https://www.letsrecycle.com/news/latest-news/teep-assessments-lead-to-little-change-in-waste-collections/>

[3] 'Economically' could be dropped from TEEP

<https://www.letsrecycle.com/news/latest-news/economically-could-be-dropped-from-teep/>

[4] Novelis concern over "deterioration" in can sorting quality

<https://www.letsrecycle.com/news/latest-news/novelis-concern-over-deterioration-in-can-sorting-quality/>

[5] Paper president emphasises quality need

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[6] Poor Material Quality Is "Biggest Threat" To UK Recycling

<https://www.circularonline.co.uk/news/poor-material-quality-biggest-threat-uk-recycling/>

[7] Commingled recycling allowed, says Commission

<https://www.letsrecycle.com/news/latest-news/commingled-recycling-allowed-says-commission/>

[8] Judicial review rules comingling recycling acceptable

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[9] Waste hierarchy compliance: a tick box exercise?

<https://www.isonomia.co.uk/waste-hierarchy-compliance-a-tick-box-exercise>

[10] Let's have less commingling and more genuine recycling

<https://www.hamhigh.co.uk/news/let-s-have-less-commingling-and-more-genuine-recycling-7652596>

[11] 'Plastic recycling is a myth': what really happens to your rubbish?

<https://www.theguardian.com/environment/2019/aug/17/plastic-recycling-myth-what-really-happens-your-rubbish>

[12] Getting value from compostables

https://mcusercontent.com/57981e55e365722b7bb40867b/files/0d50f49e-9050-4db6-befb-2667dc14caa/11_David_Newman.pdf?utm_source=Organics+2020&utm_campaign=5b2f305c02-EMAIL_CAMPAIGN_2018_03_19_COPY_01&utm_medium=email&utm_term=0_ecdb9dafab-5b2f305c02-250402829

[13] 10 March 2020: Waste and resource efficiency factsheet (part 3)

<https://www.gov.uk/government/publications/environment-bill-2020/10-march-2020-waste-and-resource-efficiency-factsheet-part-3>

[14] Majority of local councillors believe waste and recycling charges will have to be introduced to meet proposed standardised collections

<https://becg.com/majority-of-local-councillors-believe-waste-and-recycling-charges-will-have-to-be-introduced-to-meet-proposed-standardised-collections/>

[15] How much CO2 does an incinerator emit?

<https://ukwin.org.uk/resources/faq/how-much-co2-does-an-incinerator-emit/>