

Warwickshire Waste Partnership

Date: Wednesday 29 September 2021
Time: 2.00 pm
Venue: Virtual

Membership

Councillor Heather Timms (Chair)
Councillor Sarah Millar
Councillor Bhagwant Singh Pandher
Councillor Daren Pemberton
Councillor Andrew Wright
Councillor Margaret Bell
Councillor Kyle Evans
Councillor Kathryn Lawrence
Councillor Ian Shenton
Councillor Alan Rhead

Items on the agenda: -

1. General

(1) Apologies

(2) Disclosures of Pecuniary and Non-Pecuniary Interests

Members are required to register their disclosable pecuniary interests within 28 days of their election or appointment to the Council. Any changes to matters registered or new matters that require to be registered must be notified to the Monitoring Officer as soon as practicable after they arise.

A member attending a meeting where a matter arises in which they have a disclosable pecuniary interest must (unless they have a dispensation):

- Declare the interest if they have not already registered it
- Not participate in any discussion or vote
- Leave the meeting room until the matter has been dealt with
- Give written notice of any unregistered interest to the Monitoring Officer within 28 days of the meeting

Non-pecuniary interests relevant to the agenda should be declared at the commencement of the meeting.

The public reports referred to are available on the Warwickshire Web

(3) Chair's Announcements

- | | |
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| (4) Minutes of the previous meeting, including matters arising | 5 - 12 |
| 2. Waste Management Performance Data | 13 - 16 |
| 3. Development of the Warwickshire Joint Municipal Waste Management Strategy | Verbal Report |
| 4. MRF update | Verbal Report |
| 5. Waste Partners Update | 17 - 24 |
| 6. Action on Climate change
Including Carbon data for disposal | 25 - 30 |
| 7. Agenda item suggestions for next meeting | |
| 8. Dates of future meetings
8 th December 2021
16 th March 2022 | |

Monica Fogarty
Chief Executive
Warwickshire County Council
Shire Hall, Warwick

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Warwickshire Waste Partnership

Wednesday 16 June 2021

Minutes

Attendance

Committee Members

Warwickshire County Council

Councillor Heather Timms (Chair)

Councillor John Horner

Councillor Sarah Millar

Councillor Bhagwant Singh Pandher

Councillor Daren Pemberton

Councillor Andrew Wright

Ruth Dixon, Waste Strategy and Commissioning Manager

Tamalyn Goodwin, Project Manager (Waste Strategy and Commissioning)

Isabelle Moorhouse, Trainee Democratic Services Officer

Andrew Pau, Strategy and Commissioning Manager (Waste & Environment)

North Warwickshire Borough Council

Councillor Margaret Bell

Richard Dobbs, Corporate Director – Streetscape

Nuneaton & Bedworth Borough Council

Councillor Kyle Evans

Glen McGrandle, Head of Waste and Transport

Rugby Borough Council

Councillor Kathryn Lawrence

Anton Cuscito (Interim Transport & Waste Manager)

Stratford-on-Avon District Council

Councillor Ian Shenton

Julie Lewis, Head of Community and Operational Services (for Stratford and Warwick District Councils)

1. Election of Chair and Vice-Chair

Councillor Daren Pemberton nominated Councillor Heather Timms to be Chair of the Warwickshire Waste Partnership for the election term. This was seconded by Councillor Ian Shenton.

Councillor Timms nominated Councillor Ian Shenton to be Vice-Chair of the Warwickshire Waste Partnership for the election term. This was seconded by Councillor Pemberton

Resolved

That Councillor Heather Timms be Chair and Councillor Ian Shenton be Vice-Chair of the Warwickshire Waste Partnership for the election term.

2. General

(1) Apologies

Dan Green (Rugby Borough Council) was substituted by Anton Cuscito (Interim Transport & Waste Manager)

(2) Disclosures of Pecuniary and Non-Pecuniary Interests

None.

(3) Chair's Announcement

None.

(4) Minutes of the previous meeting, including matters arising

The minutes of the 14 March 2021 were approved as true and correct record.

3. Waste Management Performance Data

Andrew Pau (Strategy and Commissioning Manager (Waste & Environment)) stated that the 2020/21 household waste data was provisional until accepted by the Environment Agency. The reuse and recycling rate increased by 4500 tonnes, but the percentage increase was only 0.8%; composting rates were static and decreased by 1.2% which led to the overall recycling, composting and reuse rate to fall by 0.4%. Residual waste (the waste left after recycling and composting) increased by 11,000 tonnes/4.3% but more people were at home during the Covid-19 pandemic. Warwickshire's increases were modest compared to some neighbouring authorities. Over 100,000 tonnes of waste was sent to Energy From Waste facilities in 2020/21 which was 9,500 tonnes more than 2019/20, 27,000 tonnes of waste was landfilled which was 3000 tonnes less than the previous year. Dry recycling tonnage had increased for all boroughs and districts but there was a slight reduction in the recycling and composting percentage with 50.7% of waste being re-used/recycled/composted; on average each household is producing over a tonne of waste was produced which had increased this year. Normally, the recycling centre targets are 58% with a 60% average for recycled materials at the centres but the average had decreased due to the closure of the HWRCs and the booking system, more kerbside collection of recycling and green waste had taken place. In 2020/21, boroughs and districts collected 20,000 tonnes more waste at the kerbside when compared with the previous year. Over the last two years, there had been on average a 5% increase in recycled/composted/reused waste or an 11,000 increase in tonnes. The HWRCs collected 7000 tonnes less waste in 2020/21.

In response to Councillor Margaret Bell, Andrew Pau stated that the decrease in waste at recycling centres was not good or bad if waste was separated and reused, recycled and composted where appropriate. Waste at recycling centres decreased by 1/3 and traffic decreased by 2/3 which meant that people were bringing more recyclable material to the centres in one journey than making multiple journeys. It was predicted that more people will take waste to recycling centres when lockdown ends.

Councillor Bell suggested some booking free days for recycling centres as she had received pushback from her residents. The Chair noted that as social distancing was enforced until July 2021, the booking system would stay in place until then.

Councillors Pemberton, Sarah Millar and Kathryn Lawrence all praised the booking system at their local recycling centres. Councillor Pemberton noted that every area has different experiences but not having cars' engines running while queuing up benefited the environment. He added that a consultation could be done with the public and centres to improve the booking system. The Chair agreed with this and added that ongoing consultations were taking place with neighbouring authorities.

Councillor Millar agreed with Councillor Pemberton and suggested a strategic approach with the staff at recycling centres.

Councillor Lawrence noted how quickly booking slots went at recycling centres and suggested keeping recycling centres open longer during the summer.

The Chair noted that Hunters Lane in Rugby was Warwickshire's busiest recycling centre and that they recently extended their hours but booking slots were still busy.

Councillor Shenton praised the 50.7% recycling rate, landfill decrease and energy recovery increase and suggested lowering recycling targets to be more realistic and queried how comparable some of the data was. Andrew Pau stated that the recycling targets were aspirational and set five years ago but this was due for a review; he continued that there were contracts in place which had minimum tonnages but there was scope in increase energy recovery and decrease landfill tonnage to 20,000 tonnes (which was low compared to some local authorities). Andrew Pau concluded that not all data was directly comparable as some focused-on household recycling centre numbers and others on kerbside collection.

Councillor Bhagwant Singh Pandher suggested an incentive for home composting like food waste bins.

4. National Waste Strategy Update

Ruth Dixon (Lead Commissioner - Waste Strategy & Contracts) informed the partnership that the National Resources and Waste Strategy was launched in December 2018 followed by three consultations which ran over 12 weeks in Spring 2019. The second round of consultations was delayed because of Brexit and Covid-19 and was launched in March 2021. The Environment Bill is currently going through House of Lords and had its second reading in June 2021. The partnership responded to the government's plans on the deposit return scheme and extended producer responsibility on the 3rd June 2021.

The deposit return scheme (DRS) is likely to be for drink containers e.g. glass/plastic bottles and drink cans, but was unlikely to include plastic milk bottles, drink pouches and Tetrapak/cartons. Everything collected would go for recycling and a deposit would be paid on purchase by the consumer which would be between 10-20p per item; deposits would be paid back when packaging was returned. The partnership (in their response to the consultation) expressed their support for an 'on the go' system for drinks rather than drinks that would be consumed at home as this would help reduce litter. Officers were concerned about the potential impact of an 'all in' deposit return scheme on low income families without private transport as they would struggle to get their deposits back. The partnership's consultation response suggested the DRS should take drinks

bottles that were less than 700 millilitres and that wine bottles should be collected at kerbsides to keep space in the reverse vending machines. They did not support a digital solution to collection from kerbside as there would have been a lot of issues with it, which were listed in their response.

In response to Councillor Bell's concerns regarding local authority responsibility and uncollected deposits, Ruth Dixon clarified that anything collected by the reverse vending machines/online retailers will be the DRS' responsibility to dispose of and not the councils. The partnership asked for unclaimed deposits to be returned to local authorities as they would be disposing of these materials. This waste would likely go to the new MRF where its AI should be identify DRS items. The response asked for all cost for the handling of this to be funded: collection, recycling and disposal. Central Government may change their preferred plans depending on responses to the consultation.

Ruth Dixon continued that government's plans also included an ambitious extended producer responsibility (EPR) scheme for packaging which will require the producer (and retailer) of the product to pay local authorities for the collection, sorting and disposal of their product's packaging (excluding DRS packaging). The producer would also have to pay for any of their product's packaging found in litter bins and as litter on the ground. The more recyclable and lighter the product material is, then the less the producer would pay. The partnership strongly supported this idea in their response to the consultation and stated EPR incentivises better resource management, make recycling easier and influences producers to improve their packaging. They suggested a discount for consumers bringing in their own reusable cups for drinks, stated that recycling of plastic film for businesses and households should start on the timescales and also transparent paying system for local authorities to be included.

Ruth Dixon informed the partnership that the kerbside collection consistency consultation was just for England. The proposed system would include flats and houses of multiple occupancy (HMOs). Theoretically, every authority will get new burdens payments for anything that will be set out in the regulations that they must do that they were not doing before. This will include payments to offer a weekly food waste collection to every household, free green waste collection (if the government decide to make this obligatory), potentially a minimum frequency residual waste collection, and paying businesses to segregate their waste for recycling which would affect Warwickshire's trade waste. If the proposed system goes ahead, Warwickshire County Council may move from in vessel composting to an anaerobic digestion treatment as it generates electricity or gas to the grid. Then it would be possible to open window compost garden waste collected at the kerbside which will be cheaper than using an in vessel composter. All of Warwickshire's local authorities are part of the new MRF in Coventry, so they will provide information in their response about how TEEP-style analysis could work (whether collecting material commingled in one or two bins as opposed to five/six separate bins is technically, environmentally and economically practicable so bin collections do not need to be done separately). Plastic film recycling was due to be introduced in 2026 which would be aided by EPR.

In response to Councillor Kyle Evans, Ruth Dixon confirmed that government could potentially mandate a minimum green waste collection service of a fortnightly 240 litre bin during the growing season. Councillors Evans, Pemberton, Shenton and Julie Lewis (Head of Community and Operational Services for Stratford and Warwick District Councils) expressed concerns over this suggestion as the borough and district councils would lose a large source of essential income if this was enforced and the government would not pay enough to match this loss. Following a query from Councillor Pemberton, Ruth Dixon confirmed that local authorities would be able to charge for

an enhanced service of collections and for additional bins; Richard Dobbs (Corporate Director – Streetscape) expressed concern with this as fleet would still need to be maintained and insured outside of the growing season and he noted that green waste exists all year round. Councillor Shenton noted that over 70% of councils charge for green waste collections so there will be a national push back from local authorities but that the 1/2/3+ waste system could be put at risk.

Andrew Pau reminded the partnership that this was still under government consultation and stated that some local authorities only collect residual waste every three weeks.

Richard Dobbs stated that the MRF would be able to take on plastic film when it opens in 2023 but there were concerns within the industry that similar infrastructures in the country would not be able to deal with it, so asking all local authorities to deal with film from 2026 onwards would be difficult for the market.

The Chair noted that they would need to be careful and not get too far ahead of other authorities as this could influence central government's decision and the new burden money will not last forever.

The majority of the Waste Partnership expressed these views regarding the waste collection consultation:

- Local authorities should not be required to collect Tetrapak if there is still inadequate reprocessing capacity in the UK or Europe by 2023/4. Richard Dobbs informed the partnership that the MRF would be able to take Tetrapak waste but 2023/4 was very soon as there was only one facility in England that could recycle Tetrapak waste as of June 2021.
- Local authorities could collect plastic films from all households (incl. flats and HMOs) made by 2026/7 because reprocessing capacity in the UK and Europe is developing well. Richard Dobbs noted that 2026/7 was a short time scale if local authorities do not already have access to a MRF that can sort plastic film as a lot of space in the MRF will be taken up by plastic film equipment. He suggested a public education exercise to educate them about the issues/concerns with plastic film management. Ruth Dixon stated that this would be the local authority's responsibility. Andrew Pau reminded the partnership that EPR would influence producers to use more recyclable material for their products.
- In principal, local authorities should look to carry out a weekly collection of food waste by 2024/5

Richard Dobbs stated that local authorities should not be mandated to do food waste collections and a weekly collection service would be very expensive in North Warwickshire due to its rural scattered population and it would be easier to do it fortnightly with green waste collection. Glen McGrandle (Head of Waste and Transport) agreed and stated that he would like more information into this proposal to see if it will be viable contractually and see if there were any benefits.

The Chair stated the main focus should be to reduce food waste and having a weekly collection could encourage food-wasting behaviour. Julie Lewis agreed with the Chair and stated that Stratford and Warwick districts were going to move to three-weekly residual waste collection and to run a separate weekly food waste collection in these districts would need 17 separate food vehicles to make a new fleet and 35 staff members. Julie Lewis suggested having the green waste

vehicles collecting the food waste but putting it in a separate pod on the vehicle. Councillor John Horner endorsed this idea.

Andrew Pau stated that food waste makes up 1/3 of Warwickshire's residual waste but green waste only made up less than 2%; he stated that the food collection would likely be mandatory because of this but green waste would more likely be left to the local authority.

Councillor Evans noted the financial burden that weekly food waste collection would have on local authorities and 2024 would be too early without the relevant information.

- Challenges with collecting recycling/residual waste from flats/HMOs include:
 - Contamination/Waste infringements
 - Cost & Resources incl. staff/fleet/containers (caddy and bin) storage and portability
 - Access to sites
 - Communication between landlords & tenants over who has responsibility
 - Education and enforcement on doing it properly
- Local authorities should be able to choose if they want to be able to charge for garden waste
- Communicating and helping households with recycling & home composting would be best to reduce green in general waste if charging was allowed (this would include households who are not subscribed to green waste collection)
- Residual waste collection frequency should be a local decision
- Recycling that is not packaging food/garden waste should retain the requirements for waste disposal authorities to make recycling credit payments to waste collection authorities. Andrew Pau stated that new burden payments would pay for most recycling arrangements.
- Central government should pay new burdens before 2023/4 to help the transition to new systems

The Warwickshire Waste Partnership will produce a response to the consultation sharing its views. Ruth Dixon stated that new draft regulations may be published by April 2022.

5. Development of the Warwickshire Joint Municipal Waste Management Strategy

This item will be discussed in September's meeting.

6. Waste Partners Update

The updates were taken as read in the report.

7. Update on litter and flytipping including report/letter on review of environmental sentencing

Glen McGrandle informed the partnership that a meeting was held on the 13th May with their current partnership enforcement team where they provided the blueprints of what is being undertaken on behalf of Nuneaton and Bedworth Borough Council. Litter patrols were undertaken in Nuneaton and Bedworth hotspots and fly tipping enforcement patrols were monitoring hotspots. Action was taken against offenders as there was enough publication on not infringing waste laws and prosecutions were made.

Councillor Horner said that he carried out an online survey where 75% of people surveyed in his division said that they wanted the district to do more to improve litter and fly-tipping.

Councillor Evans queried if the partnership had any data on how many section 215 notices were issued annually (landowners legally must clear fly tipping waste on their land) under the Town and Country Planning Act.

Richard Dobbs suggested that the borough and district fly tipping enforcement teams should join together to help tackle this issue.

Glen McGrandle suggested reviewing what legislative tools could be used by councils to fight against litter like the Highways Act to deal with fly tipping and graffiti; this would bring in more people and resources to help with everyone's own service area. Richard Dobbs agreed with this and suggested parking enforcers also being litter enforcers.

A future meeting on this topic was agreed to be arranged.

Resolved

The Waste Partnership agrees for the Chair to co-sign the final waste crime letter drafted by Hertfordshire Fly Tipping Group which requests the Sentencing Council reviews the 2014 Sentencing guidelines in relation to waste crime.

8. Action on Climate change

This item will be discussed at September's meeting.

9. Agenda item suggestions for next meeting

- Development of the Warwickshire Joint Municipal Waste Management Strategy
- Action on Climate change
- Update on the MRF project

10. Dates of future meetings

- 29th September 2021
- 8th December 2021

The meeting rose at 15:55

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Chair

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Warwickshire Waste Partnership

Waste Management Performance Data

Recommendations

- (1) The Partnership is asked to note the provisional data for the 1st Quarter 2021/22.

1.0 Data Overview

- 1.1 This report contains a mixture of data taken from Waste Data Flow and from Warwickshire County Council in-house records and at the publication of this report are considered estimates.
- 1.2 The figures should be treated as provisional as data may be changed until all authorities data is approved by the EA and DEFRA through the Waste Data Flow System.

	Name	Contact Information
Report Author	Nav Rai	navrai@warwickshire.gov.uk
Assistant Director, Communities	David Ayton Hill	davidayton-hill@warwickshire.gov.uk
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Portfolio Holder - Environment, Climate and Culture	Heather Timms	cllrimms@warwickshire.gov.uk

Provisional Waste Management Data 2021/22

1. Provisional performance Q1 2021/22 (household waste)

	Q1 2020/21	Q1 2021/22	Change
Recycling/Reuse rate	15,101 tonnes	16,133 tonnes	☺ 1,032 tonnes up
	22.1%	22.6%	☺ 0.5% up
Composting rate	22,963 tonnes	22,285 tonnes	✖ 678 tonnes down
	33.6%	31.2%	✖ 2.4% down
Recycling, Composting and Reuse rate	38,064 tonnes	38,418 tonnes	☺ 354 tonnes up
	55.7%	53.8%	✖ 1.9% down
Landfill rate	4,658 tonnes	5,126 tonnes	✖ 468 tonnes up
	6.9%	7.2%	✖ 0.3% up
Energy from waste	25,552 tonnes	27,806 tonnes	☺ 2,254 tonnes up
	37.4%	39.0%	☺ 1.6% up
Total Household waste	68,274 tonnes	71,350 tonnes	✖ 3,076 tonnes up
			✖ 4.5% up

2. Estimated performance for year 2021/22 (household waste)

HH	North Warwickshire			Nuneaton and Bedworth			Rugby			Stratford			Warwick			HWRC			Warwickshire		
	28,300	28,580	28,580	57,170	57,870	57,870	47,120	49,729	49,729	59,750	61,220	61,220	64,720	65,395	65,395	N/A	N/A	N/A	257,060	261,490	261,490
	2019-20	2020-21	2021-22 est	2019-20	2020-21	2021-22 est	2019-20	2020-21	2021-22 est	2019-20	2020-21	2021-22 est	2019-20	2020-21	2021-22 est	2019-20	2020-21	2021-22 est	2019-20	2020-21	2021-22 est
Recycling rate	5,324 tonnes 19.5%	5,414 tonnes 18.3%	5,035 tonnes 17.9%	8,408 tonnes 18.1%	10,144 tonnes 19.2%	9,941 tonnes 19.4%	9,695 tonnes 24.4%	9,400 tonnes 21.7%	7,990 tonnes 16.9%	12,866 tonnes 22.3%	14,861 tonnes 23.9%	14,731 tonnes 25.7%	10,579 tonnes 20.0%	12,822 tonnes 22.0%	12,921 tonnes 22.2%	11,289 tonnes 36.7%	8,565 tonnes 39.3%	10,591 tonnes 39.2%	58,254 tonnes 22.8%	61,206 tonnes 22.8%	61,209 tonnes 22.8%
Composting rate	7,748 tonnes 28.4%	7,843 tonnes 26.6%	5,643 tonnes 20.1%	9,233 tonnes 19.9%	10,032 tonnes 19.0%	9,731 tonnes 19.0%	8,294 tonnes 20.9%	10,067 tonnes 23.3%	9,060 tonnes 19.2%	22,048 tonnes 38.2%	22,146 tonnes 35.5%	17,439 tonnes 30.5%	17,830 tonnes 33.8%	19,020 tonnes 32.6%	19,449 tonnes 33.5%	7,111 tonnes 23.1%	2,495 tonnes 11.4%	4,121 tonnes 15.3%	72,124 tonnes 28.3%	71,603 tonnes 26.7%	65,443 tonnes 24.3%
Recycling, Composting and Reuse Rate	13,072 tonnes 47.9%	13,257 tonnes 44.9%	10,678 tonnes 38.0%	17,641 tonnes 38.0%	20,176 tonnes 38.2%	19,672 tonnes 38.3%	17,989 tonnes 45.3%	19,467 tonnes 45.0%	17,050 tonnes 36.0%	34,914 tonnes 60.5%	37,007 tonnes 59.4%	32,170 tonnes 56.2%	28,409 tonnes 53.8%	31,842 tonnes 54.6%	32,370 tonnes 55.7%	18,400 tonnes 59.9%	11,060 tonnes 50.7%	14,712 tonnes 54.5%	130,378 tonnes 51.1%	132,809 tonnes 49.5%	126,652 tonnes 47.1%
Residual	14,198 tonnes 52.1%	16,262 tonnes 55.1%	17,400 tonnes 62.0%	28,832 tonnes 62.0%	32,654 tonnes 61.8%	31,674 tonnes 61.7%	21,761 tonnes 54.7%	23,821 tonnes 55.0%	30,252 tonnes 64.0%	22,773 tonnes 39.5%	25,301 tonnes 40.6%	25,048 tonnes 43.8%	24,387 tonnes 46.2%	26,506 tonnes 45.4%	25,710 tonnes 44.3%	12,342 tonnes 40.1%	10,743 tonnes 49.3%	12,306 tonnes 45.5%	124,846 tonnes 48.9%	135,287 tonnes 50.5%	142,390 tonnes 52.9%
Total	27,270 tonnes	29,519 tonnes	28,078 tonnes	46,473 tonnes	52,830 tonnes	51,346 tonnes	39,750 tonnes	43,288 tonnes	47,302 tonnes	57,687 tonnes	62,308 tonnes	57,218 tonnes	52,796 tonnes	58,348 tonnes	58,080 tonnes	30,742 tonnes	21,803 tonnes	27,018 tonnes	255,224 tonnes	268,096 tonnes	269,042 tonnes
Kg of residual per HH	502 Kg	569 Kg	609 Kg	504 Kg	564 Kg	547 Kg	462 Kg	479 Kg	608 Kg	381 Kg	413 Kg	409 Kg	377 Kg	405 Kg	393 Kg	N/A	N/A	N/A	486 Kg	517 Kg	545 Kg
Kg of all waste per HH	964 Kg	1,033 Kg	982 Kg	813 Kg	913 Kg	887 Kg	844 Kg	870 Kg	951 Kg	965 Kg	1,018 Kg	935 Kg	816 Kg	892 Kg	888 Kg	N/A	N/A	N/A	993 Kg	1,025 Kg	1,029 Kg

HWRC Performance Q1 2021-22	Burton Farm HWRC	Cherry Orchard HWRC	Hunters Lane HWRC & Transfer	Judkins HWRC	Lower House Farm	Princes Drive HWRC & Transfer	Shipston HWRC	Stockton HWRC	Wellesbourne HWRC	Total
Recycling %	56.2	54.1	54.7	63.2	56.8	54.3	59.3	56.8	44.2	56.7

3. April - July Tonnes Comparison 2020 to 2021

	2020-21				2021-22			
	April	May	June	Total	April	May	June	Total
HWRC	560	969	2,134	3,663	2,664	2,787	3,035	8,486
Composting	37	112	254	403	604	623	802	2,029
Recycling	121	398	902	1,421	1,001	1,052	1,002	3,055
Residual	402	459	978	1,839	1,059	1,112	1,231	3,402
N Warks	1,976	2,987	2,662	7,625	2,395	2,256	2,690	7,341
Composting	152	1,283	832	2,267	527	509	804	1,840
Recycling	542	482	556	1,580	451	469	556	1,476
Residual	1,282	1,222	1,274	3,778	1,417	1,278	1,330	4,025
Nuneaton	4,591	4,405	4,589	13,584	4,246	4,071	4,833	13,150
Composting	1,022	1,007	936	2,964	828	764	1,279	2,871
Recycling	792	772	867	2,431	814	788	772	2,374
Residual	2,777	2,626	2,786	8,189	2,604	2,519	2,782	7,905
Rugby	3,694	3,842	3,740	11,276	3,744	3,729	4,518	11,991
Composting	982	1,044	934	2,960	682	733	1,239	2,654
Recycling	889	963	1,065	2,917	868	733	872	2,473
Residual	1,823	1,835	1,741	5,399	2,194	2,263	2,407	6,864
Stratford	5,861	5,629	5,311	16,801	4,823	4,688	5,747	15,258
Composting	2,543	2,486	2,073	7,102	1,446	1,688	2,515	5,649
Recycling	1,348	1,286	1,342	3,976	1,385	1,237	1,342	3,964
Residual	1,970	1,857	1,896	5,723	1,992	1,763	1,890	5,645
Warwick	4,017	5,391	4,803	14,212	4,289	4,529	5,193	14,011
Composting	1,445	2,087	1,761	5,293	1,537	1,475	2,256	5,268
Recycling	826	1,029	1,020	2,876	998	914	979	2,891
Residual	1,746	2,275	2,022	6,043	1,754	2,140	1,958	5,852
Total	20,699	23,223	23,239	67,161	22,161	22,060	26,016	70,237

6/23/21

Overall	2020				2021			
	April	May	June	Total	April	May	June	Total
Composting	6,181	8,019	6,790	20,989	5,624	5,792	8,895	20,311
Recycling	4,519	4,930	5,752	15,201	5,517	5,193	5,523	16,233
Residual	10,000	10,274	10,697	30,971	11,020	11,075	11,598	33,693
Total	20,699	23,223	23,239	67,161	22,161	22,060	26,016	70,237

HWRC	2020				2021			
	April	May	June	Total	April	May	June	Total
Composting	37	112	254	403	604	623	802	2,029
Recycling	121	398	902	1,421	1,001	1,052	1,002	3,055
Residual	402	459	978	1,839	1,059	1,112	1,231	3,402
Total	560	969	2,134	3,663	2,664	2,787	3,035	8,486

Districts	2020				2021			
	April	May	June	Total	April	May	June	Total
Composting	6,144	7,907	6,536	20,586	5,020	5,169	8,093	18,282
Recycling	4,398	4,532	4,850	13,780	4,516	4,141	4,521	13,178
Residual	9,598	9,815	9,719	29,132	9,961	9,963	10,367	30,291
Total	20,139	22,254	21,105	63,498	19,497	19,273	22,981	61,751

	April	May	June	Total
	HWRC	2104	1818	901
Composting	567	511	548	1626
Recycling	880	654	100	1634
Residual	657	653	253	1563
N Warks	419	-731	28	-284
Composting	375	-774	-28	-427
Recycling	-91	-13	0	-104
Residual	135	56	56	247
Nuneaton	-345	-334	244	-434
Composting	-194	-243	343	-93
Recycling	22	16	-95	-57
Residual	-173	-107	-4	-284
Rugby	50	-113	778	715
Composting	-300	-311	305	-306
Recycling	-21	-230	-193	-444
Residual	371	428	666	1465
Stratford	-1038	-941	436	-1543
Composting	-1097	-798	442	-1453
Recycling	37	-49	0	-12
Residual	22	-94	-6	-78
Warwick	272	-862	390	-201
Composting	92	-612	495	-25
Recycling	172	-115	-41	15
Residual	8	-135	-64	-191
Total	1462	-1163	2777	3076

Overall	April	May	June	Total
Composting	-557	-2227	2105	-678
Recycling	998	263	-229	1032
Residual	1020	801	901	2722
Total	1462	-1163	2777	3076

HWRC	April	May	June	Total
Composting	567	511	548	1626
Recycling	880	654	100	1634
Residual	657	653	253	1563
Total	2104	1818	901	4823

Districts	April	May	June	Total
Composting	-1124	-2738	1557	-2304
Recycling	118	-391	-329	-602
Residual	363	148	648	1159
Total	-642	-2981	1876	-1747

	April	May	June	Total
	HWRC	376	188	42
Composting	1532	456	216	403
Recycling	727	164	11	115
Residual	163	142	26	85
N Warks	21	-24	1	-4
Composting	247	-60	-3	-19
Recycling	-17	-3	0	-7
Residual	11	5	4	7
Nuneaton	-8	-8	5	-3
Composting	-19	-24	37	-3
Recycling	3	2	-11	-2
Residual	-6	-4	0	-3
Rugby	1	-3	21	6
Composting	-31	-30	33	-10
Recycling	-2	-24	-18	-15
Residual	20	23	38	27
Stratford	-18	-17	8	-9
Composting	-43	-32	21	-20
Recycling	3	-4	0	0
Residual	1	-5	0	-1
Warwick	7	-16	8	-1
Composting	6	-29	28	0
Recycling	21	-11	-4	1
Residual	0	-6	-3	-3
Total	7	-5	12	5

Overall	April	May	June	Total
Composting	-9	-28	31	-3
Recycling	22	5	-4	7
Residual	10	8	8	9
Total	7	-5	12	5

HWRC	April	May	June	Total
Composting	1532	456	216	403
Recycling	727	164	11	115
Residual	163	142	26	85
Total	376	188	42	132

Districts	April	May	June	Total
Composting	-18	-35	24	-11
Recycling	3	-9	-7	-4
Residual	4	2	7	4
Total	-3	-13	9	-3

Warwickshire Waste Partnership

29 September 2021

Waste Partners Report

Recommendation(s)

1. The Waste Partnership is asked to acknowledge the updates on the various waste activities taking place in each area since the last partnership meeting in June 2021.

1.0 Introduction

- 1.1 This report provides an update on the various waste activities taking place in each authority area.

2.0 North Warwickshire Borough Council

- 2.1 Refuse & Recycling Collections are continuing to experience a strain on staffing due to Covid-19.
- 2.2 All waste services are at full operating capacity.
- 2.3 All waste staff are still undertaking regular Lateral Flow Testing (LTF).
- 2.4 We are now experiencing shortages of drivers for our HGV vehicles.
- 2.5 Agency staff providers have indicated that there is very little prospect of attracting HGV drivers in the current climate, due to the national shortage of qualified staff.
- 2.6 The three new 26 tonne single-bodied vehicles are still performing very well and are continuing to deliver additional capacity, with reduced running costs and lower carbon emissions.
- 2.7 We are about to issue specifications for the replacement of a further 8 RCVs of various sizes to be ordered and delivered over the next 3 years.
- 2.8 Garden waste charges commenced in April 2021. Subscriptions have exceeded our year 1 expectations - with almost 17,000 participants, which equates to over 60% of all household having signed up for the service.
- 2.9 Banners are still being displayed on the sides of the RCVs focussed on Covid-19 messages with the continuing aim of reducing rates in the borough and across Warwickshire and encouraging vaccine uptake.

- 2.10 NWBC continue to take a full and active role in the Sub-Regional MRF
- 2.11 NWBC have recently been recognised by APSE as one of the most improved performers in Waste Services throughout the UK
- 2.12 NWBC are working hard to introduce systems that will assist with waste collections and vehicle/fuel efficiency.
- 2.13 NWBC are working hard to tackle the increase in contamination found in recyclables over recent months – we are looking at bin stickers, updated webpages and vehicle banners.

3.0 Nuneaton & Bedworth Borough Council

3.1 COVID-19 Response

- a) After review and consultation with staff and unions, all covid-19 measures and safeguards maintained at NBBC offices and depot.
- b) Risk assessments being continually updated and issued to all Gresham Road users and visitors.

3.2 Refuse, Recycling and Street Cleansing

- a) After significant disruption to garden waste collections due to isolation of driving and collection staff, waste management services now working at full capacity.
- b) Refuse and recycling collection route re-profiling progressing well. Following initial sign off, refuse collection representatives consulted on 'new proposal of changes'. Final decisions deferred whilst full resource analysis is being considered. Full modelling and mapping of rounds, progress on going.
- c) Ongoing Training of staff reviewed with proposed changes to be made to enhance employee safety.
- d) In cab training delivery deferred due to staffing issues however, implementation planned for late September 2021
- e) Garden waste administration services under review with, subscription sign up exceeding projected figures.
- f) River clearance team undertaking targeted environmental training in waste retrieval and debris removal techniques via the Wildlife trust, to maintain awareness of protected species. Works continuing within Nuneaton and Bedworth to keep watercourses flowing and debris free.
- g) Internal and Joint WWP resource and waste consultation responses submitted, awaiting next round of consultations.

- h) Transfer station waste management working to full capacity with tonnage increase. However, currently no stockpiling issues.
- i) Waste and transport working in partnership with WCC and BIFFA to provide driving and vehicle hire to assist with waste management functions at Lower House Farm
- j) Waste and transport officers liaising with Oak Wood secondary school supporting job coaches, to provide placements for students with special educational needs within waste operations to help build necessary skills and confidence within a working environment.

3.3 Enforcement

- a) In preparation for contract end dates, a review of environmental enforcement provision in NBBC now being considered.
- b) Environmental enforcement continuing for all controlled waste and littering offences.
- c) Overt cameras continue to be deployed in Nuneaton and Bedworth, with ongoing commitments to add to the numbers in our fight against waste crime. We will be also trialling one covert camera for the purposes of surveillance to better understand the cost and legal processes

3.4 Promotions/Communications

- a) Campaign material from WRAP being used for recycle week campaign, alongside Borough-relative facts and figures for social media
- b) Truck signage being used for COVID job promotional material
- c) Promotion of 21/22 garden waste services to commence in October 2021
- d) Survey out currently to ask for public feedback on potential comingled service for dry recycling

3.5 Climate Change Emergency

- a) Vehicle procurement analysis continuing for housing services van replacement programme. EV and Hybrid vehicles still being demonstrated with continuing review of charge point locations. An updated report to cabinet earmarked for later in the year.
- b) Climate change officer group set up to analyse NBBC carbon emissions and generate proposals to meet reduction targets.

4.0 Rugby Borough Council

- 4.1 Continuing to respond to the ongoing COVID-19 emergency with regards to all refuse, recycling and cleansing services and safeguarding of key worker staff. Still working to the requirements of Covid secure Risk Assessments, government, and industry guidance.
- 4.2 Green waste subscriptions for 2021/22 are open. In excess of 28,000 households subscribed to the service in 2020-21.
- 4.3 RBC have seen disruption to Garden Waste collections – these have been due to staff shortages, sickness and self-isolation, in particular for drivers. Some rounds have been suspended, some have received late collections and others have been unaffected. We hope that the situation is now improving.
- 4.4 Work is continuing to improve education and information regarding recycling and to consider potential changes required because of the resources and waste strategy.
- 4.5 RBC continue to play an active and proactive role in the sub regional MRF/ Sherbourne Recycling project
- 4.6 RBC continue to work with WWP partners to develop a shared response to the Waste and Resources Strategy consultations.
- 4.7 RBC continue to support numerous volunteer litter groups, capitalising on the community spirit witnessed during the pandemic.
- 4.8 RBC will shortly be assessing opportunities for more sustainable vehicles across the fleet, moving forward.

5.0 Warwick District Council

- 5.1 A joint litter strategy for WDC and SDC has now been drafted. We have continued our ‘Don’t be a Tossler’ and ‘Love Your Park’ campaigns over the summer to raise awareness of litter and ask people to take litter home with them if bins are full.
- 5.2 WDC are currently running a fun competition to name our new street sweeper vehicles to help raise awareness of the new street cleaning contract and the good work done to keep the district clean and clear of litter. It’s generated lots of interest and positive PR and we’ve had well over 100 name suggestions already ranging from Sooty and Sweep to Bruce Springclean. Closing date for name suggestions is 20th September if anyone can think of some fun names. The top 5 names will be printed on our mechanical street sweepers.
- 5.3 WDC Officers had a promotional stand at Ecofest on 4th September in the Pump Room Gardens linked to the work we’re doing on litter reduction. We

were giving away reusable coffee cups in exchange for people signing up to the Refill app. The idea being to reduce the number of disposable coffee cups used and ending up as litter. We were also promoting our 'Name a Street Sweeper' competition and encouraging people to put forward their name suggestions.

- 5.4 Final tenders for the WDC and SDC new joint waste contract are due to be submitted mid-September with the successful bidder being notified early October. Procurement of waste containers required for the new 123+ service is due to start imminently. WRAP and their contractor, Cutting Edge Marketing, are currently working on a communications plan and branding for the new 123+ service.
- 5.5 Refuse, recycling and green waste tonnages remain in line with tonnages from the same time last year. Starting to see a gradual reduction in refuse and recycling tonnages but may be linked to summer holiday season.

6.0 Stratford-on-Avon District Council

- 6.1 The Pure Materials Recycling Facility in Ettington burnt down in July, which meant that recycling collections were suspended for 8 days whilst we found a new destination for the material. The material is currently be taken to Lower House Farm to be bulked for onward transportation and two loads a day are being delivered directly to the Mercia Waste MRF in Worcestershire.
- 6.2 The number of fly tipping incidents have started to decrease. We actioned 107 incidences in the last months compared to 134 for the same period last year.
- 6.3 The chargeable garden waste service started on 1st April 2021. There are now over 48,000 subscriptions.
- 6.4 The procurement of a new joint SDC/WDC Waste Collection Contract is currently at final tender stage. The new contract will be awarded by 1st October 2021 to allow a 10-month mobilisation period with a service commencement date of 1st August 2022.
- 6.5 The procurement of SDC's new Street Cleansing Contract is currently at initial tender stage, with the deadline for ISIT submissions on 20th September 2021.

7.0 Warwickshire County Council

- 7.1 Covid – 19
 - a) The Partnership has worked together throughout the Covid-19 pandemic to ensure the continuation of waste services across the County. Continuity of service was maintained during the summer period, but some green waste services experienced disruption. All services are now up to full operation.
 - b) All the HWRCs are open and continue to operate with a booking system which ensures that visitors and staff are able to maintain space from one another, all

waste streams are available, and queueing has been minimal. There are currently over 19,000 appointments available per week. Reuse shops are open at all sites bar Stockton.

- c) All waste staff are encouraged to take regular Lateral Flow Testing (LTF) either at a test centre or via home testing kits provided.

7.2 Communication activities update:

- a) 8,810 subscribers received the June/July edition of the 'Warwickshire Recycles' e-newsletter, which focussed on reducing waste over the Summer. The edition had a 42.4% open rate and a click rate of 7.4%. The articles covered zero waste shops and refill; clothes reuse; battery recycling; home composting and plastic free picnics.
The Autumn edition will be out in September.
- b) Slim Your Bin has recruited 1,253 'bin dieters' onto its 4-week training programme. The module called Slim Your Bin Kids, proved popular over the school holidays, packed with ideas for keeping children entertained with practical activities that bring home the waste minimisation message. A new module for Recycle Week in September has been added. We will be asking elected members from all local authorities to help to promote the scheme.
- c) The YouTube Home Composting Workshop launched last year has been viewed 1700 times and feedback has been very positive. Subsidised cold compost bins are available to purchase from the recycling centres and online. Subsidised hot compost bins, Green Johannas, are available online for home delivery. Sales of composting equipment last financial year were double what they had been for the previous financial year.
- d) We joined WDC at Ecofest in Leamington on 4th of September to promote home composting and reducing food waste. We will be joining SDC for some town centre roadshows later in the month to talk about refill and other waste reduction initiatives.
- e) The countywide food waste recycling behaviour change campaign – In to Win, continues across the county. 5,811 households are now signed up.
- f) All waste reduction behaviour change activity is promoted with regular posts on our social media accounts. Facebook followers have increased to 2,334 (Warwickshire Recycles), with 983 followers on Twitter (@WarksRecycles).

7.3 Procurement and Contracts update:

- a) Upcoming extensions for consideration in the next few months are recycling of textiles from HWRCs, haulage of kerbside residual waste, promotion of caddy liners, abandoned vehicles, reprocessing and disposal of tyres, leachate removal and disposal, metal recycling from HWRCs, analysis of closed landfill sites.

- c) Upcoming procurements or those currently taking place are purchase of hook loader vehicles, container provision (RoRos), reprocessing of Road Sweeper and Gully Waste so that it is in place by Jan 2022, WEEE, metal recycling and separately collected food waste reprocessing.
- d) Work is also taking place to bring the HWRC haulage provision in house as the contract ends Nov 2021.

8.0 Financial Implications

None.

9.0 Next steps

9.1 Updates on progress to be provided at the December 2021 meeting.

Background papers

None.

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The report was circulated to the following members prior to publication:

Local Member(s): n/a

Other members: n/a

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Warwickshire Waste Partnership

29 September 2021

Carbon emissions estimates from waste disposal, treatment and recycling in Warwickshire since 2013/14

Recommendation(s)

1. The Waste Partnership is asked to note the estimated data from 2013/14 to 2020/21.

1.0 Data Overview

- 1.1 This report contains a mixture of data taken from Waste Data Flow (WDF) and from Warwickshire County Council (WCC) in-house records and at the publication of this report are considered estimates.
- 1.2 The calculations are based on verified waste tonnage data up to 2019/20 and provision for 2020/21. The 2021 data will not be verified by the Environment Agency (EA) and Department for Environment, Food and Rural Affairs (Defra) in the Waste Data Flow System until late 2021 or early 2022.
- 1.3 The calculations have been carried out using the Zero Waste Scotland Carbon Factors for waste, published here: <https://zerowastescotland.org.uk/our-work/carbon-metric-publications> these are the most local and relevant factors available for use.

2.0 Summary Table

Section 2 Table – Summary Estimated Carbon Emissions from waste disposal, treatment and recycling in Warwickshire

	Carbon emissions (tCO ₂ e)							
	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21
Recycling Kerbside	-37,530	-36,790	-35,910	-36,245	-35,890	-36,116	-38,419	-41,865
Recycling HWRC	-12,609	-14,087	-16,110	-17,099	-16,143	-16,432	-15,326	-7,833
Bio	-2,647	-3,139	-3,114	-2,707	-2,890	-2,854	-3,270	-3,217
Residual Landfill	31,263	17,168	16,561	16,343	19,980	18,523	13,970	9,040
Residual EFW	22,453	33,337	36,034	36,366	33,723	35,270	36,446	41,282
Totals	930	-3,511	-2,539	-3,342	-1,220	-1,609	-6,598	-2,592

- 2.1 Section 2 Table shows the tonnes of carbon emitted from the processes involved in the disposal, treatment and recycling of all waste collected in Warwickshire. It includes waste collected at the kerbside as well as at the 9 Household Waste Recycling Centres (HWRCs) and other waste streams as listed in Section 3 Table, e.g., clinical waste. It shows 2019/20 and 2020/21 data which has not previously been published alongside previous data which was published for the County Council's climate change task and finish group in the autumn of 2019.
- 2.2 The final two columns of the Section 2 table have been calculated using the tonnages (taken from WDF and WCC records) in Section 3 Table multiplied by the relevant carbon factor in the Section 5 Table. It is a summarised version of the section 4 Table.
- 2.3 This data does not include any carbon emissions from the vehicles used to collect waste in the County, manage waste at the HWRCs and waste transfer stations (WTS) or haul waste from the HWRCs or WTSs to disposal, treatment and recycling points.

3.0 Waste Disposal, Treatment and Recycling Tonnes 19-20 and 20-21

Section 3 Table – Waste Disposal, Treatment and Recycling Tonnes in 19/20 and 2021 (data taken from WDF and WCC records)

	Tonnes													
	NWBC		NBBC		RBC		SDC		WDC		HWRC		Total	
	19-20	20-21	19-20	20-21	19-20	20-21	19-20	20-21	19-20	20-21	19-20	20-21	19-20	20-21
Green garden waste only	6,523	6,678	7,750	7,942	7,329	8,165	19,054	20,461	14,451	15,789	7,551	2,472	62,658	61,507
Food Waste	525	589	600	615	566	631	1,277	1,372	1,153	1,260	0	0	4,121	4,467
Mixed garden and food waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other compostable waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plasterboard	0	0	0	0	0	0	0	0	0	0	478	300	478	300
Rubble	0	0	0	0	0	0	0	0	0	0	7,144	4,079	7,144	4,079
Soil	0	0	0	0	0	0	0	0	0	0	251	221	251	221
Paper and Card	2,499	2,521	3,357	3,412	4,896	4,955	5,967	5,902	4,320	4,928	3,360	2,034	24,400	23,752
Plastic	652	671	1,197	1,121	1,114	1,104	1,085	1,141	1,198	1,210	77	32	5,323	5,279
Glass	1,219	1,321	2,770	2,972	2,532	3,299	4,653	6,530	3,827	4,946	298	298	15,298	19,366
Weeds			72	51			66	55	1	4	1,232	1,034	1,371	1,144
Wood	0	0	0	0	0	0	0	0	0	0	1,082	884	1,082	884
Used Tires	0	0	0	0	0	0	0	0	0	0	219	219	219	219
Textiles & Footwear	0	0	66	23	19	30	5	5	64	73	745	139	899	270
Batteries	0	0	0	0	0	0	0	0	0	0	128	128	128	128
Scrap Metal	0	0	73	76	0	0	57	83	0	0	3,245	1,985	3,375	2,144
Ferrous Metals	196	201	509	551	286	305	387	451	422	465		2	1,800	1,975
Non Ferrous	109	113	124	141	178	199	167	232	94	127	2	6	674	818
Tyres	23	45	3	3	13	19	4	2	1	1	11	11	55	81
Landfill	0	0	0	0	13,603	10,146	3,475	610	3,810	371	10,020	8,874	30,908	20,001
EFW	14,198	15,094	28,832	31,393	8,158	12,168	19,298	22,400	20,577	23,405	2,871	1,937	93,934	106,397
Chemical	0	0	0	0	0	0	0	0	0	0	26	19	26	19
Clinical	5	5	20	19	0	0	2	0	12	12	11	13	50	49
Abandoned vehicles	0	0	0	0	17	22	0	0	0	0	0	0	17	22
Total	25,949	27,238	45,373	48,319	38,711	41,043	55,496	59,244	49,930	52,591	38,751	24,688	254,211	253,123

4.0 Detailed Estimated Carbon Emissions 19-20 and 20-21

Section 4 Table - Detailed Estimated Carbon Emissions from waste disposal, treatment and recycling in Warwickshire (kgCO₂e)

	Carbon emissions (kg CO ₂ e)													
	North Warwickshire		Nuneaton and Bedworth		Rugby		Stratford		Warwick		HWRC		WCC Combined	
	19-20	20-21	19-20	20-21	19-20	20-21	19-20	20-21	19-20	20-21	19-20	20-21	19-20	20-21
Green garden waste only	-332,673	-340,578	-395,250	-405,042	-373,779	-416,415	-971,754	-1,043,511	-737,001	-805,239	-385,095	-126,072	-3,195,552	-3,136,857
Food Waste	-9,450	-10,602	-10,800	-11,070	-10,188	-11,358	-22,986	-24,696	-20,754	-22,680	0	0	-74,178	-80,406
Mixed garden and food waste														
Other compostable waste														
Plasterboard	0	0	0	0	0	0	0	0	0	0	22,483	14,100	22,483	14,100
Rubble	0	0	0	0	0	0	0	0	0	0	14,287	8,158	14,287	8,158
Soil	0	0	0	0	0	0	0	0	0	0	502	442	502	442
Paper and Card	-1,366,953	-1,378,987	-1,836,137	-1,866,364	-2,678,380	-2,710,385	-3,263,905	-3,228,394	-2,363,309	-2,695,616	-1,838,128	-1,112,598	-13,346,811	-12,992,344
Plastics	-350,055	-360,327	-642,887	-601,977	-598,111	-592,848	-582,871	-612,717	-643,115	-649,770	-41,349	-17,184	-2,858,388	-2,834,823
Glass	-920,314	-997,355	-2,091,499	-2,243,860	-1,911,464	-2,490,745	-3,512,728	-4,930,150	-2,889,029	-3,734,230	-224,952	-224,952	-11,549,987	-14,621,292
Weee	0	0	-12,985	-9,231	0	0	-11,919	-9,955	-261	-724	-222,992	-187,154	-248,157	-207,064
Wood	0	0	0	0	0	0	0	0	-65	-65	-194,738	-159,120	-194,803	-159,185
Used Oils	0	0	0	0	0	0	0	0	0	0	-158,942	-158,942	-158,942	-158,942
Textiles & Footwear	-490	-490	-384,065	-134,044	-111,490	-174,840	-27,287	-27,287	-372,759	-425,444	-4,340,811	-810,092	-5,236,901	-1,572,196
Batteries	0	0	0	0	0	0	0	0	0	0	-74,344	-74,344	-74,344	-74,344
Scrap Metal	0	0	-186,279	-193,040	0	0	-144,196	-210,820	0	0	-8,241,767	-5,041,900	-8,572,241	-5,445,760
Ferrous Metals	-346,459	-355,971	-900,630	-975,821	-506,772	-540,155	-685,997	-798,721	-747,284	-823,515	0	-3,542	-3,187,141	-3,497,725
Non Ferrous	-1,089,494	-1,125,932	-1,236,562	-1,404,924	-1,771,599	-1,982,836	-1,660,501	-2,311,648	-934,394	-1,265,428	-20,327	-59,784	-6,712,876	-8,150,552
Tyres	-11,822	-23,130	-1,542	-1,542	-6,682	-9,766	-2,056	-1,028	-514	-514	-5,654	-5,654	-28,270	-41,634
Landfill	0	0	0	0	6,148,556	4,585,992	1,570,700	275,720	1,722,120	167,692	4,529,040	4,011,048	13,970,416	9,040,452
EFW	5,508,824	5,856,472	11,186,816	12,180,484	3,165,304	4,721,184	7,487,624	8,691,200	7,983,876	9,081,140	1,113,948	751,556	36,446,392	41,282,036
Chemical	0	0	0	0	0	0	0	0	0	0	9,983	7,372	9,983	7,372
Clinical	0	0	0	0	0	0	0	0	0	0	4,606	3,401	4,606	3,401
Abandoned vehicles	0	0	0	0	-27,591	-35,706	0	0	0	0	0	0	-27,591	-35,706
Total	1,081,115	1,263,100	3,488,180	4,333,569	1,317,805	342,122	-1,827,875	-4,232,007	997,511	-1,174,393	-10,054,248	-3,185,261	-4,997,512	-2,652,869

5.0 Zero Waste Scotland Carbon Factors for Waste

Section 5 Table – Zero Waste Scotland Carbon Factors for waste, 2018 dataset

Material type (WSR)	Household (kgCO ₂ eq per tonne of material)			
	Generated	Recycled/Composted	Incinerated	Landfilled
Food waste	3,744	-18	-3	989
Batteries	12,107	-579	0	0
Chemical wastes	1,321	4,039	388	0
WEEE	1,754	-181	47	4
Discarded vehicles	6,850	-1,623	328	0
Glass	1,210	-755	54	4
Clinical	0	0	179	420
Household waste	3,208	-653	388	452
Ferrous metal	2,922	-1,771	0	0
Mixed metal	3,893	-2,540	47	4
Non-ferrous metal	12,946	-9,964	0	0
Hardcore and plasterboard	21	2	47	3
Paper and cardboard	882	-547	-118	499
Plastic	3,185	-537	1,824	4
Tyres	3,100	-514	1,729	0
Textiles	20,444	-5,828	216	571
Used oils	1,401	-725	0	0
Green garden	0	-51	-21	214
Wood and chip	516	-288	-180	861
Mixed food and green	328	-48	-20	282

- 5.1 Zero Waste Scotland have been publishing carbon factors for waste since 2017. The publications can be accessed via <https://www.zerowastescotland.org.uk/our-work/carbon-metric-publications>
- 5.2 There is not yet an equivalent set of metrics published for England. This set of factors are the best available to use currently.
- 5.3 The carbon impacts of three different disposal methods (recycling, incineration and landfill) for 20 different waste streams that Warwickshire produces are shown in Section 5 Table. They have been used to estimate the carbon impact of waste disposal, treatment and landfill of Warwickshire waste over the past 8 years.
- 5.4 The figures are shown in equivalent kilograms of Carbon Dioxide per tonne of waste disposed of.

Background papers

None.

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The report was circulated to the following members prior to publication:

Local Member(s): n/a

Other members: n/a