Worcestershire County Council

Waste Plan

Waste Needs Assessment

Early baselining and engagement (February 2026)

The content of this version of the Waste Needs Assessment was finalised on Friday 12th December 2025 to enable it to progress through internal governance processes prior to consultation. Any changes to policy or legislation after that date are not taken into account in the document.

Any changes to policies and guidance around forecasting waste arisings and waste capacity needs will be considered as we develop the next iteration of the WNA, alongside any points raised in response to the early baselining and engagement consultation.

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worcestershire county council

This is a consultation document

A questionnaire is available online, or you can print it and send it by email or post. Please answer as many or as few questions as you like. Everyone is welcome to respond.

The consultation runs from 25 February 2026 until 15 April 2026. Please respond before the deadline so your views can be considered.

Take part here: www.worcestershire.gov.uk/wasteplanningpolicy

Responses to this consultation will be considered as we prepare the Waste Plan. We'll publish a summary of the comments received and how we intend to address them. We'll continue to ask for your views as the plan progresses.

Stay up to date

Information on the Waste Plan and the evidence base will be published on our website at www.worcestershire.gov.uk/wasteplanningpolicy

If you're not already registered on our planning consultation database, you can sign up to make sure you hear about future consultations. Sign up here: www.worcestershire.gov.uk/council-services/planning-and-developments/get-involved-planning

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Introduction

1.1. In preparing waste plans, waste planning authorities should identify the need for new waste management facilities in their area.[1] The evidence for this is set out in a Waste Needs Assessment.

1.2. The purpose of the Waste Needs Assessment (WNA)[2] is to:

- understand current waste arisings from within Worcestershire,
- understand strategic imports and exports of waste between Worcestershire and other Waste Planning Authority areas
- identify the current waste management capacity in Worcestershire and any capacity gaps, both in total and by particular waste streams.
- forecast the future waste arising in Worcestershire both at the end of the period that is being planned for and at interim dates, and
- assess the waste management capacity required to deal with forecast arisings at the interim dates and at the end of the plan period.

1.3. The WNA identifies the scale and type of capacity needed to achieve **equivalent self-sufficiency** in waste management in Worcestershire; this means identifying the capacity that would be equivalent to the scale and type of waste arisings in Worcestershire, but acknowledging that cross-boundary movements of waste are inevitable and reflect the normal working of the economy[3]. As such, the waste arising in Worcestershire may be managed elsewhere and vice versa.

1.4. The WNA considers the scale and pattern of waste arisings and capacity both in total and by particular waste stream. It also considers the type of capacity needed at each level of the waste management hierarchy (see **Figure 1**). The waste management hierarchy ranks options for waste management, giving priority to preventing the creation of waste in the first place, followed by preparing waste for reuse; to recycling, and then other types of recovery. Disposal is regarded as the worst option. Waste plans focus on recycling, other recovery, and disposal, with little ability to influence waste prevention or preparing for re-use. Driving waste up the waste management hierarchy[4] is a cornerstone of waste planning, with the aim of supporting the transition to a circular economy[5] through

[1] National planning policy for waste - GOV.UK (www.gov.uk) paragraph 3 and Waste - GOV.UK (www.gov.uk)

[2] Based on Waste - GOV.UK (www.gov.uk) Paragraph: 022 Reference ID: 28-022-20141016. Revision date: 16 10 2014

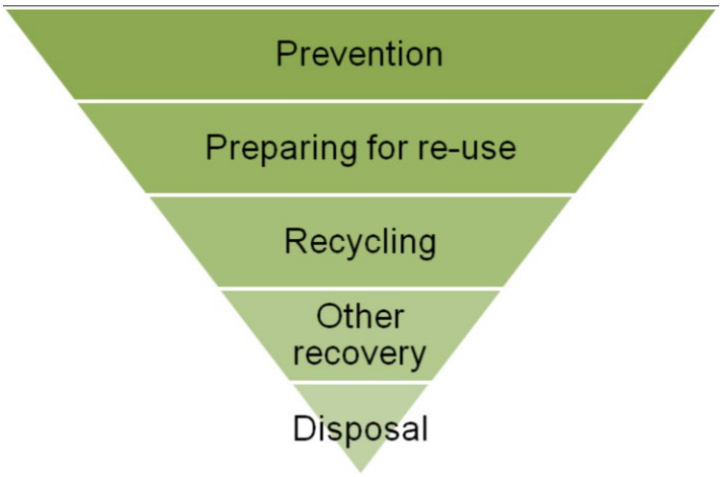
[3] It is noted that some types of waste also require specialised management methods; for such facilities to be viable they often operate at a regional or national level.

[4] See Appendix A of National planning policy for waste - GOV.UK, and Waste Management Plan for England 2021.

[5] The circular economy model promotes using products and materials for as long as possible through local maintenance, repair, reuse, refurbishment, remanufacturing, and recycling, as well as lowering

adequate provision of re-use and recycling capacity whilst ensuring that the right waste management infrastructure is in place to manage waste that cannot be recycled.

Figure 1. Waste Management Hierarchy (National planning policy for waste 2014)



1.5. The WNA is split into three parts:

- **Part A: Current arisings, capacity and strategic movements** presents information on current waste arisings from Worcestershire and the current waste management capacity in Worcestershire. It identifies whether equivalent self-sufficiency in waste management capacity in Worcestershire was achieved in the baseline year[6].
- **Part B: Forecasting future waste arisings** will build on the baseline in Part A to identify a range of scenarios for forecasting levels of future waste arisings. This consultation document sets out an initial framework for projections and identifies the considerations that are likely to influence the development of forecasting scenarios. Consultation questions focus on whether we have identified all the key legislation and policies which need to be taken into account, and whether our proposed approach to developing forecasting scenarios is appropriate and justified.

1.6. Once a forecasting model has been established, **Part C: Forecasting Capacity Needs** will consider the forecasted waste arisings against current capacity, to identify the waste management capacity required to deal with forecast arisings during and at the end of the period covered by the Waste Plan. This information will inform the scale and type of development to be provided for in the Waste Plan.

1.7. We want your views on the work we've done so far and how we plan to move forward. Your feedback will help shape the Waste Plan from the beginning.

1.8. A questionnaire is available online, or you can print it and send it by email or post. Please answer as many or as few questions as you like. Everyone is welcome to respond, and if you'd like to discuss anything with us first, we're happy to chat. Contact us using the details on this leaflet.

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consumption and reducing resource use. It seeks to address the economic and environmental impacts of waste production, resource depletion, climate change and biodiversity loss, while addressing social needs and increasing resource security. (The circular economy and sustainable manufacturing - POST)

[6] This is 2023 as it is the most recent year for which all relevant data was available.

1.9. The consultation runs from 25 February 2026 to 25 March 2026. Please respond before the deadline so your views can be considered.

1.10. Take part here: www.worcestershire.gov.uk/wasteplanningpolicy

1.11. Please note that responses are not anonymous, and your name may be published. Find out more about how we handle your personal data in our full Privacy Notice and service-specific Planning Policy Privacy Notice.

Key concepts for Waste Data Analysis in the WNA

1.12. There is no established nationally established methodology for producing a WNA. In the Worcestershire WNA, waste data is split into different waste streams. This enables a more detailed understanding of the scale and pattern of different types of waste arisings and the existing and future capacity required to manage different types of waste. The WNA uses the 'European Waste Catalogue (EWC) codes'[7] that are used by the Environment Agency when issuing environmental permits for waste management and in collecting and monitoring waste data. The WNA assigns each EWC code to both a Waste Source Category and a Waste Composition Category. This means that the WNA can consider both the sources or activity that generated the waste (waste source category) and the type of materials or waste products being managed (waste composition category) at a high-level.

1.13. This approach is used because it allows consideration of arisings and capacity to primarily focus on the type of waste being managed (waste composition), but enables forecasting to take account of the different legislative, policy and socio-economic factors that influence different waste source categories.

1.14. The Waste Source Categories and Waste Composition Categories have been defined locally within the WNA and will differ from those used by other WPAs. They are

- **Waste source categories**: These waste streams are based on the sources or activity that generated the waste:
    - Municipal waste: Split into municipal waste from households (MfH) and municipal waste from other sources (MfOS).[8]
    - Commercial and industrial waste (C&I)
    - Construction, demolition, excavation and mineral waste (CDE&M)
    - Waste from waste management facilities (WfWM)
    - Wastewater treatment
- **Waste composition categories**: These waste streams are based on the materials or products being managed:

[7] EWC codes are set in legislation (EUR-Lex - 02008L0098-20180705 - EN - EUR-Lex (europa.eu) The List of Wastes (England) Regulations 2005 (legislation.gov.uk)) and are used by the Environment Agency when issuing environmental permits for waste management and monitoring waste data.

[8] WasteDataFlow Qu100 data is used to further split into municipal waste from waste from households and municipal waste from other sources

- General waste
- Inert waste
- Green waste, food waste and sludges
- End of life vehicles
- Hazardous waste
- Radioactive waste

1.15. The WNA groups different types of waste management facilities into broad **waste management categories** aligned with the waste management hierarchy. These categories group together similar 'facility types' identified in the national Waste Data Interrogator to identify the fate of waste arising from Worcestershire. Grouping facilities in this way enables consideration to be given to their place within the waste management hierarchy, enables flexibility and avoids the WNA being technology-specific. The waste management categories have been defined locally within the WNA and will differ from those used by other WPAs.

- Re-use and recycling
    - Treatment and recycling facilities
    - Transfer
- Other recovery facilities[9]
    - Energy from waste[10]
    - Recovery of waste to land[11]
- Disposal[12]
    - Incineration and combustion[13]
    - Landfill[14]
- Other (e.g. mobile plant)

Sources of data

1.16. The main source of waste data for England, and the main source of data for the WNA is the 'Waste Data Interrogator' (WDI) which is published annually by the Environment

[9] Waste management operations that recover value from waste but are not recycling.

[10] Incineration where energy recovery is high-enough to achieve 'recovery' status under the EU Waste Directive R1 classification. Where incineration does not achieve this standard it is considered as disposal.

[11] Recovery of waste to land is when waste material is used in place of non-waste material to perform a function, such as land treatment resulting in benefit to agriculture or ecological improvement.

[12] Final treatment of waste, including landfill and incineration without energy recovery.

[13] Thermal treatment of waste

[14] Disposal of waste onto or into land.

Agency. Details of the quantities and types of waste dealt with[15] at waste management facilities[16] are recorded using European Waste Catalogue (EWC) codes. The WDI also includes data on waste movements between waste management facilities across England, identifying the origin and destination of waste by WPA area and specifying the type of facility involved.

1.17. The WDI covers all of the waste source and composition categories addressed in the WNA. For most waste source categories, the information in the WDI is the most robust data available. However, there are some limitations:

- The WDI does not include waste managed solely under a waste exemption and/or are registered scrap metal sites; waste disposed of illegally; or waste managed outside of England without first being handled by a waste management site within England.
- The WDI records waste each time it is received at a new facility which means the data includes an element of double-counting where waste is handled at multiple facilities. Where waste is moved from one site to another it records the previous site as the 'origin' of the waste rather than tracking the location of the point at which the waste was produced meaning that waste recorded with an origin of Worcestershire may not all truly arise from Worcestershire in the first instance.
- Worcestershire County Council has identified some sites incorrectly assigned to Worcestershire in some years of the WDI data and has informed the EA of sites in Worcestershire with a waste management licence or other Environment Permit for waste management, but for which data doesn't appear in the WDI. These have now been addressed but may impact on historic data. WCC will continue to review data prior to publishing in future WNAs.
- The comprehensiveness and validity of the WDI has been constantly improving, meaning that use of older data to consider trend over a long time-period could be misleading. The WNA therefore uses only 5 years of historic data in order to establish a baseline for the scale of waste arisings.

1.18. Other data sources are used to supplement the WDI data in the WNA as follows:

- **WasteDataFlow:** WasteDataFlow[17] is the data collection system for Local Authorities in the UK to report on the municipal waste that they collect and manage. The WNA uses the WasteDataFlow[18] to identify the quantities of municipal waste which can be attributed to being from households and distinguish this from municipal waste from other sources.

[15] i.e. waste received into site and waste sent on from site to other facilities or processes.

[16] The WDI records waste that is managed at waste management facilities in England with an environmental permit for the management of waste. Environmental permits include, but are not limited to, waste management licences, Authorised Treatment Sites (ATF) depolluting and dismantling End of Life Vehicles (ELV) and Installations Permits

[17] A web-based database, 'WasteDataFlow' (WDF) is publicly accessible at: http://www.wastedataflow.org

[18] WasteDataFlow presents data by "material type" rather than by EWC code, so work has been undertaken as part of the WNA to match "material type" used in WasteDataFlow to the EWC codes used in the WDI.

- **Environment Agency Remaining Landfill Capacity data:** This reports the remaining landfill capacity (void space in cubic meters) by site in England at the end of each calendar year. This dataset includes detail of the type of landfill site[19]. Remaining Landfill Capacity data is used in the WNA as one of the factors taken account in identifying current landfill capacity and considering likely future needs. Although it has some limitations[20], it is the most robust data available.

- **Planning permissions and environmental permits:** Planning permissions and environmental permits provide useful contextual information about the type of waste management site, its location and whether it is a temporary or permanent facility. This information is used in the WNA to inform the waste sites list, but limits set by planning permissions and environmental permits have not been used to identify waste management capacity[21].

1.19. Consideration was given to using the Hazardous Waste Interrogator (HWI) and to undertaking surveys of waste management sites to collect data. Both of these options were dismissed and are not used to provide data for the WNA:

- The Environment Agency's Hazardous Waste Interrogator (HWI) provides data relating to movements of waste which is consigned as hazardous when it is moved and/or changes hands. However, hazardous waste producer data is commercially confidential[22] and therefore only high-level information is provided about the type and quantity of waste, the waste planning authority area where the waste was produced, and where the waste management facility is located. Individual site names and producer details are not included. Using the WDI for hazardous waste instead provided more detail and allows for a consistent approach to be applied to all waste streams.

- For site surveys to be used with confidence in the WNA, it would require a high response rate, commitment from operators to consistent annual reporting to ensure comparability over time, and a mechanism to check and verify the data provided. These conditions were considered unlikely to be met.

[19] 'Hazardous Merchant Landfill', 'Non-hazardous landfill with SNRHW cell', 'non-hazardous landfill', 'Inert Landfill', 'Hazardous Restricted Landfill'

[20] More information about the limitations of this dataset is set out in **Sources and use of data** in **Part A** of the Waste Needs Assessment.

[21] Local evidence indicates that capacity limits (or 'theoretical capacity') set by conditions on planning permissions or by environmental permits are unlikely to truly reflect the actual operational capacity of sites in Worcestershire. This is because, in many instances, those limits reflect standard 'bands' in environmental permits, whereas operation capacity can be influenced by factors such as site size, design, plant and processing capacity, and working hours. Using limits from planning permissions and environmental permits could risk overestimating the actual processing capacity available in the county.

[22] 2021 Hazardous Waste Interrogator - data.gov.uk

Part A: Current arisings, capacity and strategic movements

Current arisings

1.20. The WNA calculates annual waste arisings from Worcestershire and presents this for the most recent year and the most recent five years.

1.21. For C&I and CDE&M waste and WfWM, the relevant EWC codes are selected and the resulting dataset presents arisings for each waste source category, further broken down by waste composition category (e.g. general waste from C&I sources, green waste from C&I sources, end-of-life vehicles from C&I sources, and hazardous waste from C&I sources). Additional steps are taken to refine the analysis of municipal waste, allowing it to be further split into municipal waste from households and municipal waste from other sources using WasteDataFlow data.

1.22. Data for the most recent year is used to calculate whether equivalent self-sufficiency has been achieved and the scale of any capacity gaps. The five-year trends inform forecasts of future waste arisings.

1.23. Figure 2 and Table 2 show an overview of the total waste arisings from Worcestershire by waste source category.

Figure 2. Total waste arisings in Worcestershire by waste source category 2019-2023

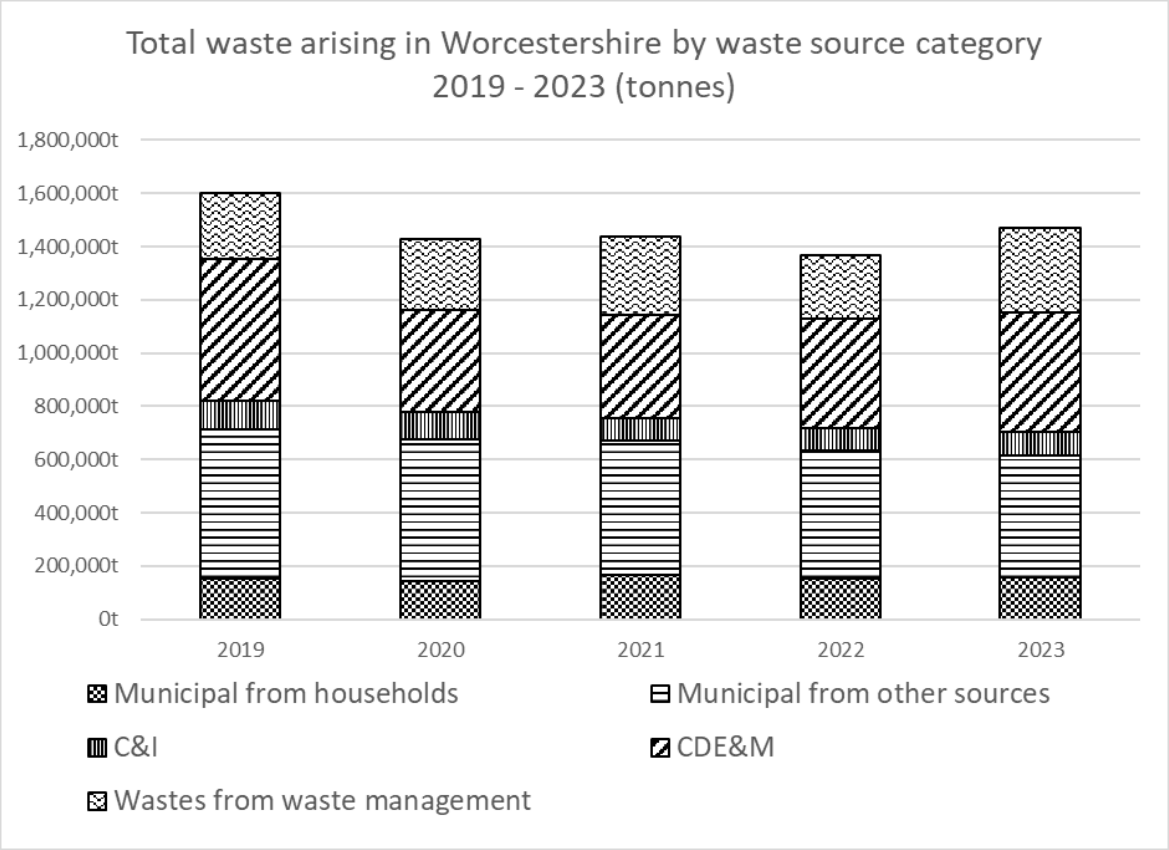

Table 1. Total waste arisings in Worcestershire by waste source category 2019-2023 (tonnes)

	2019	2020	2021	2022	2023
Commercial and industrial (C&I) waste	108,787	103,504	83,456	84,045	91,279
Construction, demolition, excavation and mineral (CDE&M) waste	529,641	384,070	385,011	411,833	448,293
Municipal from households (MfH)	150,542	142,962	166,108	154,090	157,066
Municipal from other sources (MfOS)	563,260	533,592	507,202	478,159	455,918
Wastes from waste management facilities (WfWM)	247,645	265,193	293,928	239,449	318,956
Total waste arisings	**1,599,875**	**1,429,321**	**1,435,705**	**1,367,576**	**1,471,512**

Figure 3 and Table 2 show the total waste arisings from Worcestershire between 2019 and 2023 by waste composition category.

Figure 3. Total waste arising in Worcestershire by waste composition category 2019-2023 (tonnes)

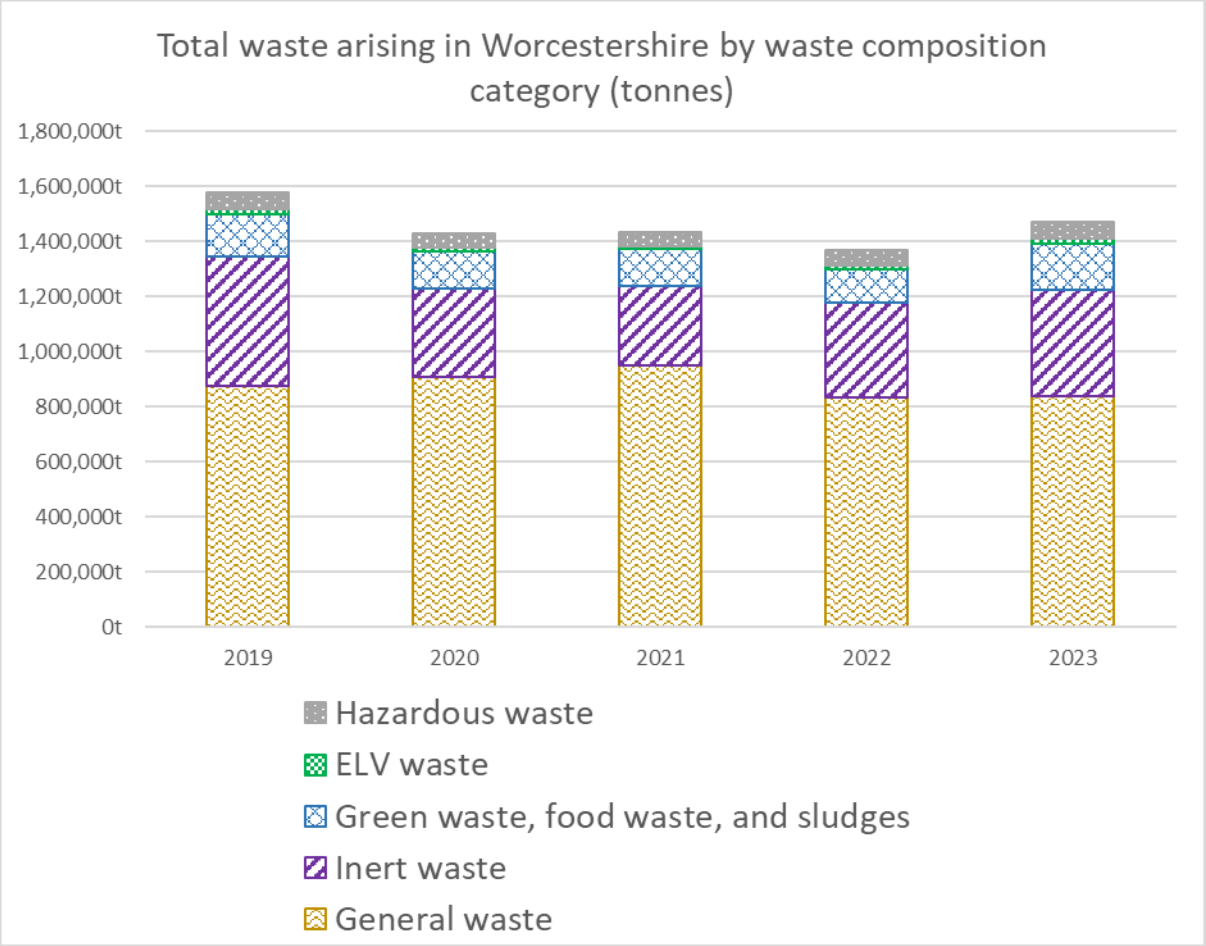

Table 2. Total waste arising in Worcestershire by waste composition category 2019-2023 (tonnes)

	2019	2020	2021	2022	2023
General waste	876,039	908,562	950,446	835,939	840,186
Inert waste	468,428	320,109	290,226	344,202	385,145

Green waste, food waste, and sludges	155,687	133,654	131,431	119,623	167,879
ELV waste	15,864	13,940	8,934	12,389	16,603
Hazardous waste	62,313	53,056	54,670	55,424	61,698
Total waste arisings	**1,578,331**	**1,429,321**	**1,435,707**	**1,367,577**	**1,471,511**

1.24. Information about the fate of waste arisings is used to identify whether equivalent self-sufficiency is achieved and to quantify any capacity gap. It should be noted that the data for fate doesn't necessarily show the "end fate" of arisings which may pass through multiple treatment facilities. In particular, it is not possible to identify how waste with a recorded fate of transfer was subsequently managed.

1.25. Figure 3 and Table 2 show the fate of waste arisings by composition category in 2023. Table 3 is used to calculate whether equivalent self-sufficiency was achieved in 2023 (see below).

Table 3. Composition and fate of waste arising in Worcestershire 2023 (tonnes)

	General waste	**Inert waste**	**Green waste, food waste and sludges**	**End of Life Vehicles**	**Hazardous waste**	**Total**
Treatment and Recycling	271,803	201,077	115,881	16,305	42,365	**647,431**
Recovery (Energy)	182,458	0	32	0	427	**182,917**
Recovery (to land)	0	8,706	0	0	0	**8,706**
Disposal: Landfill	101,158	109,175	915	9	1,808	**213,065**
Disposal: Incineration and Combustion	98	0	0	0	1,022	**1,120**
Other	12	6,898	0	0	1,402	**8,312**
Transfer	284,656	59,289	51,050	289	14,674	**409,959**
Total	**840,185**	**385,145**	**167,878**	**16,603**	**61,698**	**1,471,509**

Current waste management capacity

1.26. There are 105 waste management sites in Worcestershire. All sites are included in the web map[23] and are listed in **Appendix 6**. Data is recorded in the WDI for at least one of the last five years for 69 of these sites. This is used to set the baseline for waste management capacity calculations. The remaining 36 sites do not currently report data into the WDI[24] and, as such, the capacity of these sites is either not known, or cannot be quantified in the same way as the 69 sites appearing in the latest WDI.

1.27. For wastes sites in the WDI, waste management capacity is calculated using the peak figure of waste received[25] over a rolling 5-year period at individual waste management facilities. This is referred to as the 5-year peak. The WNA then analyses the total waste

[23] www.worcestershire.gov.uk/wasteplanningpolicy

[24] These are site that have not be operational in the last 5 years and/or operate solely under a waste exemption and/or are registered scrap metal sites.

[25] Using WDI data.

manged at each individual site over the same five-year period to calculate the percentage share of each waste composition category. These percentages are used as a proxy to estimate how much capacity there is at the site for each waste composition category.

Figure 4. Waste Management Capacity in Worcestershire by treatment type: 2023 (tonnes)

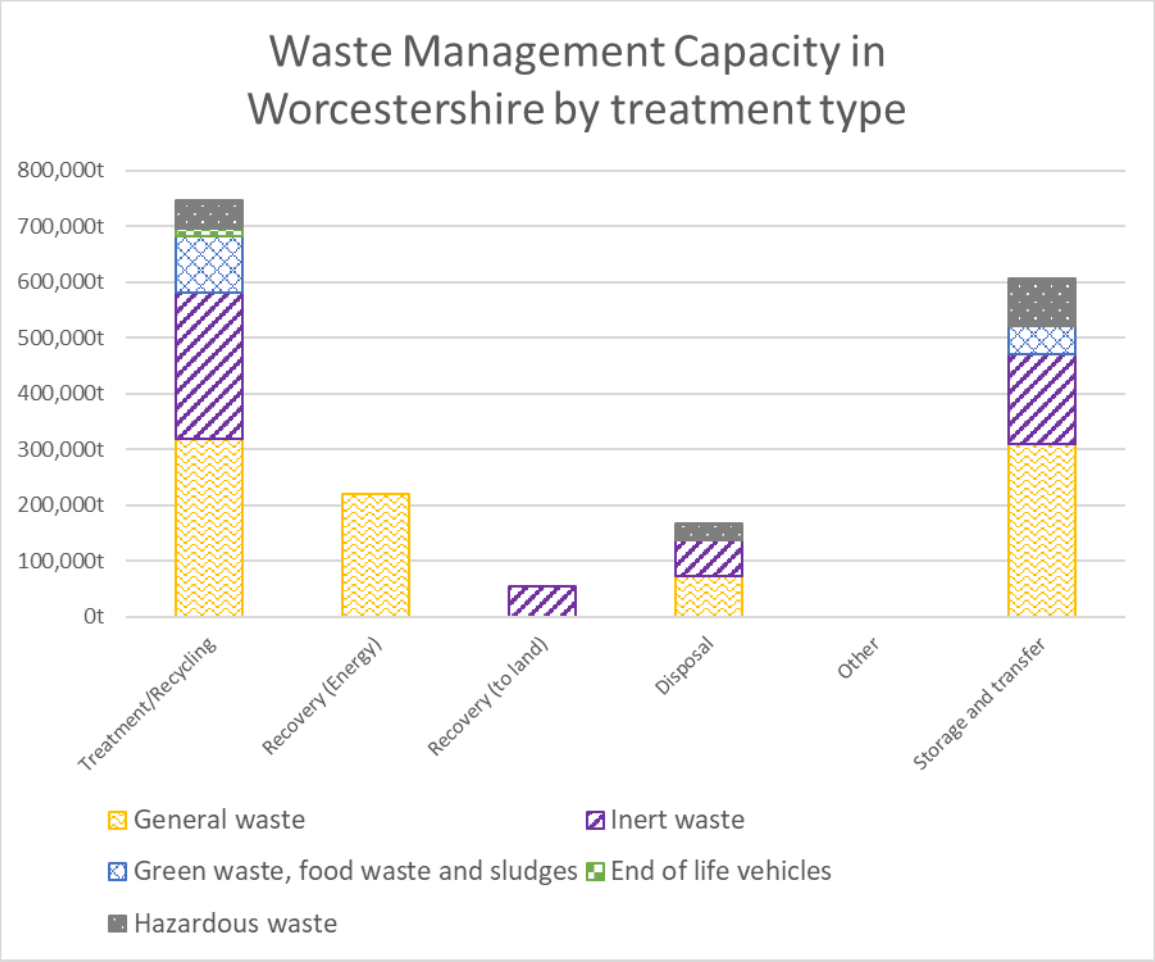

Table 4. Waste management capacity in Worcestershire 2023 (tonnes)

	General waste	Inert waste	Green waste, food waste and sludges	End of Life Vehicles	Hazardous waste	Total
Treatment/Recycling	318,645	262,434	102,092	12,401	51,651	**747,223**
Other recovery (recurrent)	219,406	0	0	0	0	**219,406**
Other recovery (non-recurrent)	0	54,589	0	0	0	**54,589**
Disposal: Landfill	72,366	64,266	849	7	29,236	**166,724**
Disposal: Incineration and Combustion	55	0	0	0	340	**395**
Other	0	0	0	0	0	**0**
Storage and transfer	309,377	160,547	52,274	124	84,053	**606,375**
Total	**919,849**	**541,836**	**155,215**	**12,532**	**165,280**	**1,794,712**

1.28. Landfill capacity is finite, so the WNA uses two measures when assessing landfill capacity:

- The **annual operational capacity** based on current working practices (using the 5-year peak method) (see Table 4);
- The **remaining void space**, which reflects the total remaining capacity available for future use (see Table 5).

Table 5. Remaining landfill capacity (void space) in Worcestershire (tonnes)

Type of remaining landfill capacity (tonnes)	Remaining Capacity end 2023
Inert	1,179,017
Non Hazardous	4,667,861*
Non Hazardous with SNRHW cell	587,103
Total	**6,433,981**

* EA Remaining Landfill Void space data shows remaining void space at one site (Waresley landfill) as 500,000 cubic metres lower in both 2020 and 2023 than in other years since the site has been dormant. WCC has discussed this with the EA and this is believed to be an error. The data in Table 7 has therefore been "corrected" to take this into account.

Equivalent self-sufficiency: Baseline

1.29. Equivalent self-sufficiency is identified by comparing the amount of waste arising in Worcestershire in 2023 (by waste composition category and fate) with the calculated waste management capacity in Worcestershire (by waste composition category and waste management category).

1.30. Subtracting arisings figures from capacity figures reveals either a negative figure indicating a capacity gap, or a positive figure indicating that capacity was sufficient to manage the scale of arisings in 2023. Where equivalent self-sufficiency is achieved, this is shown in Table 6 as a positive number and is shaded green. Where equivalent self-sufficiency is not achieved this is shown as a negative number and is shaded orange. The results are presented by both waste composition category and treatment type.

Table 6. Achievement of equivalent self-sufficiency in Worcestershire 2023 by waste management category (tonnes)

	General waste	Inert waste	Green waste, food waste, and sludges	End of Life Vehicles	Hazardous waste	Total
Treatment and Recycling	46,800	61,400	-13,800	-3,900	9,300	**99,800**
Recovery (Energy)	36,900	N/A	~0	N/A	-400	**36,500**
Recovery (to land)	N/A	45,900	N/A	N/A	N/A	**45,900**
Disposal: Landfill	-28,800	-44,900	-100	~0	27,400	-46,400
Disposal: Incineration	~0	N/A	N/A	N/A	-700	**-700**

and Combustion						
Other	~0	-6,900	N/A	N/A	-1,400	**-8,300**
Transfer	24,700	101,300	1,200	-200	69,400	**196,700**
Total	**79,600**	**156,800**	**-12,700**	**-4,100**	**103,600**	**323,600**

Strategic movements of waste

1.31. One of the purposes of the WNA is to understand strategic imports and exports of waste.[26] Some cross-boundary movements of waste are inevitable and reflect the normal working of the economy, but understanding whether the scale of movements of waste between Worcestershire and another Waste Planning Authority could be strategically important is necessary to inform the preparation of the Waste Plan.

1.32. Whether movements of waste are considered strategic or not will usually depend on the scale of the movements and the type of waste, and can be influenced by the degree of reliance on the waste management infrastructure involved. To help identify potentially strategic movements the WNA applies the following tonnage thresholds and assumes that a pattern of strategic movements is likely to exist where exports to or imports from another WPA exceed these thresholds in three of the last five years:

- 10,000 tonnes per annum of inert waste.
- 5,000 tonnes per annum of other non-hazardous waste[27].
- 500 tonnes per annum of hazardous waste.

1.33. These thresholds are used for consistency with the approaches used elsewhere[28] but are considered precautionary:

- 10,000 tonnes of inert waste is equivalent to approximately 3% of inert waste arising in Worcestershire in 2023;
- 5,000 tonnes of non-hazardous waste is equivalent to approximately 0.5% of non-hazardous waste arising in Worcestershire in 2023;
- 500 tonnes of hazardous waste is equivalent to approximately 1% of hazardous waste arising in Worcestershire in 2023.

1.34. It is therefore highly unlikely that movements below these thresholds would have a strategic impact that would need to be addressed through the Waste Plan. For context,

[26] Waste - GOV.UK (www.gov.uk) Paragraph: 022 Reference ID: 28-022-20141016. Revision date: 16 10 2014

[27] Compromised of 'general waste', 'green waste, food waste, and sludges' and 'ELV waste'.

[28] The inert and non-hazardous waste thresholds are consistent with the duty to cooperate tonnage thresholds recommended by London, South East, East of England and North West Waste Technical Advisory Bodies (TABs).[28] The hazardous waste threshold is consistent with the tonnage threshold recommended by the North West Waste TAB. This is higher than the 100 tonnes threshold recommended by London, South East and East of England TABs. TABs are non-statutory regional groups that work together to collaborate on development of local waste planning policy. Membership varies from region to region but typically comprises waste planning and management officers of the Waste Planning Authorities (WPAs), the Environment Agency, representatives of industry including the waste management industry, and representatives of environmental organisations.

the West Midlands Duty to Cooperate Protocol suggests focusing discussion between WPAs on movements of waste that exceed 20% of waste arisings or waste managed in the origin or receiving WPA.

Inert waste

1.35. Between 2020 and 2024 there was no overall trend in relation to whether Worcestershire was a net importer or exporter of inert waste. During this time less than 18% of the inert waste arising in Worcestershire was managed in another WPA and less than 15% of the inert waste managed in Worcestershire originated in another WPA.

1.36. Between 2020 and 2024, 99% of import or exports of inert waste to/from Worcestershire were to/from the West Midlands or South West region[29]. In particular, there was a pattern of potentially strategic movements between Worcestershire and Warwickshire, Sandwell and Solihull (in the West Midlands) and Gloucestershire (in the South West).

Non-hazardous waste

1.37. Between 2020 and 2024 there is no overall trend in relation to whether Worcestershire was a net importer or exporter of non-hazardous waste. During this time between 18% and 21% of the non-hazardous waste arising in Worcestershire was managed in another WPA and between 13% and 22% of non-hazardous waste managed in Worcestershire originated in another WPA.

1.38. Between 2020 and 2024, more than 5,000 tonnes of non-hazardous waste originating in Worcestershire was received by every region[30] except the South East, North East and London in at least three of the five years. During this time there was a pattern of potentially strategic movements between Worcestershire and 13 other WPAs.

1.39. Between 21% and 30% of the imports of non-hazardous waste into Worcestershire are from Herefordshire. This is primarily household waste, with long-term arrangements for cross-boundary movements of this waste established in Joint Municipal Waste Management Strategy for Herefordshire and Worcestershire 2004 – 2034.

1.40. Movements of non-hazardous waste out of Worcestershire are disproportionately to facilities managing 'green waste, food waste, and sludges'. This is likely to be a result of the identified baseline capacity gap for these wastes. There is potential for Worcestershire to have a strategic reliance on the facilities in six WPAs.

Hazardous waste

1.41. Worcestershire was a net importer of hazardous waste in every year between 2020 and 2024. During this time more than 79% of the hazardous waste arising in Worcestershire was managed in another WPA and more than 83% of the hazardous waste managed in Worcestershire originated in another WPA. During this time there was a pattern of potentially strategic imports of hazardous waste from 20 WPAs and a pattern of potentially strategic exports of hazardous waste to 16 WPAs.

1.42. There are two facilities that received more than 95% of the waste they manage from outside of Worcestershire.

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[29] See appendix 8 for a list of waste planning regions and the waste planning authorities within them.

[30] See appendix 8 for a list of waste planning regions and the waste planning authorities within them.

1.43. There is potential for Worcestershire to have a strategic reliance on the facilities in 12 other WPAs.

Strategic reliance on individual sites in Worcestershire

1.44. There are potential strategic issue to consider between Worcestershire and four WPAs in relation to **inert waste**. In particular, a pattern of ongoing imports from Gloucestershire and Warwickshire to individual sites within Worcestershire.

1.45. There are potential strategic issue to consider between Worcestershire and 13 WPAs in relation to **non-hazardous waste**. In particular:

- Between 21% and 30% of the imports of non-hazardous waste into Worcestershire are from Herefordshire.
- There is a pattern of ongoing imports from Herefordshire, Sandwell, Warwickshire, Bristol City and Nottingham City to individual sites within Worcestershire.
- There is potential for Worcestershire to have a strategic reliance on the facilities in six WPAs.
- Movements of non-hazardous waste out of Worcestershire are disproportionately to facilities managing 'green waste, food waste, and sludges', this is likely to be a result of the identified baseline capacity gap for these wastes.

1.46. There are potential strategic issue to consider between Worcestershire and 30 WPAs in relation to **hazardous waste**. This is due in part to the highly precautionary tonnage threshold used in relation to hazardous waste. Particular issues include:

- More than 79% of the hazardous waste arising in Worcestershire was managed in another WPA and more than 83% of the hazardous waste managed in Worcestershire originated in another WPA. The scale of overall imports and exports of hazardous waste in percentage terms is likely to reflect the highly specialised nature of hazardous waste management facilities, and the normal operation of the market in addressing the need for specialist management of hazardous waste.
- There is potential for Worcestershire to have a strategic reliance on the facilities in 10 WPAs.
- Imports of hazardous waste from Nottinghamshire account for between 15% and 39% of all hazardous waste imports into Worcestershire.
- More than 93% of the waste received by Stourport Oil Treatment Plant[31] between 2020 and 2024 is from WPAs other than Worcestershire.
- Between 36% and 49% of all hazardous waste movements from Worcestershire between 2020 and 2024 were to four facilities primarily treating or recycling oils. Between 71% and 73% of these movements were to a single site in Suffolk. There is likely to be a relationship between these facilities and Stourport Oil Treatment Plant[32].

[31] WNA site reference WWS050.

[32] WNA site reference WWS050.

1.47. The data indicates potential that other WPAs may have a strategic reliance on the following sites in Worcestershire:

- Unimetals, Long Marston[33]
- MRW (Midlands Reclamation and Waste) Limited, Long Marston[34].
- Hartlebury Landfill Site, Hartlebury[35]
- Chloros Environmental, Hartlebury[36]
- EnviRecover, Hartlebury[37] .
- Stourport Oil Treatment Plant[38]
- Wrubble Limited, Throckmorton[39]
- Hill and Moor Landfill Site, Wyre Piddle[40]
- Cleansing Service Group Ltd, Worcester[41]
- EnviroSort, Norton[42]

1.48. In addition to the above consideration of existing strategic movements of waste, the West Midlands RTAB's study "Resilience of Non-hazardous Residual Waste Management Capacity in the West Midlands: 29 July 2025" found that it is likely that additional residual waste capacity could be required in the West Midlands from 2041 and WPAs are encouraged to assess the need to replace retiring EfW capacity and to consider whether additional capacity may be required.

Part B: Forecasting future waste arisings

Policy Review and Options Appraisal

1.49. At this stage, Part B of this consultation document sets out an initial framework for projections. Baseline data will be used as the starting point to forecast a range of growth scenarios, identifying need at milestones throughout the plan period. They are likely to be influenced by the following considerations:

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[33] WNA site reference WWS029.

[34] WNA site reference WWS030

[35] WNA site reference WWS038

[36] WNA site reference WWS040

[37] WNA site reference WWS041

[38] WNA site reference WWS050

[39] WNA site reference WWS057

[40] WNA site reference WWS058

[41] WNA site reference WWS078

[42] WNA site reference WWS079

- National legislation, policies and targets
- Requirements of Planning Practice Guidance for Waste
- Historic trends in waste arisings and recycling, other recovery and disposal rates
- Any relevant socio-economic factors
- Any other strategic issues identified.

1.50. Consultation questions focus on whether all the key legislation and policies which need to be taken into account have been identified, and whether the proposed approach to developing forecasting scenarios is appropriate and justified.

1.51. The forecasting scenarios will be included in the next iteration of the WNA and will form part of the evidence base for the development of the Worcestershire Waste Plan.

Part C: Forecasting Capacity Needs

1.52. Part C has not yet been written as the scenarios for forecasting waste arisings are yet to be finalised (see part B). Once developed, the arisings scenarios will be used to identify a range for the quantum of different types of waste management capacity needed at regular milestone intervals, throughout and at the end of the plan period.

1.53. This will be based on the achievement of equivalent self-sufficiency. It will take account of the overall quantity of waste arising in the baseline year, forecast arisings in regular milestone years, and the quantity of waste arisings to be managed at each level of the waste management hierarchy. This will be compared to waste management capacity in Worcestershire in total and at each level of the waste management hierarchy.

Part A: Current arisings, capacity and strategic movements

A1. Introduction

Purpose

A2.1 In preparing waste plans, waste planning authorities should identify the need for new waste management facilities in their area.[43] The evidence for this is set out in a Waste Needs Assessment. The purpose of the Waste Needs Assessment (WNA) is to:

- understand current waste arisings from within Worcestershire,
- understand strategic imports and exports of waste between Worcestershire and other Waste Planning Authority areas,
- identify the current waste management capacity in Worcestershire and any capacity gaps, both in total and by particular waste streams,
- forecast the future waste arising in Worcestershire both at the end of the period that is being planned for and at interim dates, and
- assess the waste management capacity required to deal with forecast arisings at the interim dates and at the end of the plan period.[44]

A2.2 The data used in this WNA to establish a baseline to inform the development of a new Waste Plan for Worcestershire is set out in 'Appendix 1: Waste Data used in the WNA'. Regular updates to the WNA will form part of the Council's ongoing plan-monitoring activities to inform any future waste plan policy development and review.[45] The WNA will be used to support the identification of strategic waste movements which need to be considered and addressed in discussion with other waste planning authorities.

Structure

A2.3 The WNA is split into three parts:

- **Part A: Current arisings, capacity and strategic movements** presents information on current waste arisings from Worcestershire and the current waste management capacity in Worcestershire. It identifies whether equivalent self-sufficiency in waste management capacity in Worcestershire was achieved in the baseline year[46].

  This section is well-developed and consultation questions focus on whether the proposed approach is appropriate and justified. It sets out:

[43] National planning policy for waste - GOV.UK (www.gov.uk) paragraph 3 and Waste - GOV.UK (www.gov.uk)

[44] Waste - GOV.UK (www.gov.uk) Paragraph: 022 Reference ID: 28-022-20141016. Revision date: 16 10 2014

[45] As set out in the Local Development Scheme - Local Development Scheme | Worcestershire County Council

[46] This is 2023 as it is the most recent year for which all relevant data was available.

- The methodology for identifying annual waste arisings and waste management capacity. The methodology will be reviewed if there are changes to the national and local policy context, or in response to points raised through consultation, but will otherwise remain the same in future WNAs to enable a consistent analysis of trends over time.
- Headline arisings and capacity data, both of which will be updated annually.
- Information on strategic cross-boundary movements which will be updated annually.

- **Part B: Forecasting future waste arisings** will build on this baseline to identify a range of scenarios for forecasting levels of future waste arisings. It sets out an initial framework for projections and identifies the considerations that are likely to influence the development of forecasting scenarios. Consultation questions focus on whether we have identified all the key legislation and policies which need to be taken into account, and whether our proposed approach to developing forecast scenarios is appropriate and justified.

  Consultation responses will inform the development of forecasting scenarios.

- Once a forecasting model has been established, **Part C: Forecasting Capacity Needs** will consider forecasted waste arisings against current capacity, to identify the waste management capacity required to deal with forecast arisings during and at the end of the period covered by the Waste Plan. This information will inform the scale and type of development to be provided for in the Waste Plan.

A2. Current arisings, capacity and strategic movements: Methodology

Key Concepts for Waste Data Analysis in the WNA

Equivalent self-sufficiency

A2.1 The WNA identifies the scale and type of capacity needed to achieve **equivalent self-sufficiency** in waste management in Worcestershire; this means identifying the capacity that would equivalent to the scale and type of waste arisings in Worcestershire, but acknowledging that cross-boundary movements of waste are inevitable and reflect the normal working of the economy[47]. As such, the waste arising in Worcestershire may be managed elsewhere and vice versa.

A2.2 The WNA considers the scale and pattern of waste arisings and capacity both in total and by particular waste stream. It also considers the type of capacity needed at each level of the waste management hierarchy (see Figure A2 - 1). The waste management hierarchy ranks options for waste management, giving priority to preventing the creation of waste in the first place, followed by preparing waste for reuse; to recycling, and then other types of recovery. Disposal is regarded as the worst option. Waste plans focus on recycling, other recovery, and disposal, with little ability to influence waste prevention or preparing for re-use.

A2.3 Driving waste up the waste management hierarchy[48] is a cornerstone of waste planning, with the aim of supporting the transition to a circular economy through adequate provision of re-use and recycling capacity whilst ensuring that the right waste management infrastructure is in place to manage waste that cannot be recycled.

Figure A2 - 1. Waste Management Hierarchy (National planning policy for waste 2014)

[47] It is noted that some types of waste also require specialised management methods; for such facilities to be viable they often operate at a regional or national level.

[48] See Appendix A of National planning policy for waste - GOV.UK, and Waste Management Plan for England 2021.

A2.4 The role of the WNA is to determine whether existing waste management capacity is sufficient to meet current needs and to identify any additional capacity required to manage forecast waste arisings over the plan period.[49] Where additional capacity is needed, this is referred to as a capacity gap.

A2.5 National planning guidance advises that waste planning authorities should identify the waste management capacity gaps in total and by particular waste streams.[50] Authorities should also recognise the need for a mix of facility types and scales, and quantify the waste requiring different forms of management over the plan period,[51] but that they should not prescribe the specific techniques or technologies to be used for managing particular waste streams.[52]

A2.6 To assess waste management needs, the WNA compares current waste arisings in Worcestershire with existing waste management capacity within the county. This comparison helps determine whether Worcestershire is achieving equivalent self-sufficiency. The approach considers both the capacity gap for all wastes, and capacity gaps for each type of waste being managed (see 'waste streams' below) and for each level of the waste management hierarchy (see 'waste management categories' below).

Waste streams and waste management categories

A2.7 Waste streams and waste management categories are central to the WNA's analytical framework. These key concepts are used throughout to ensure data is presented and interpreted consistently, supporting the establishment of a baseline, forecasting future requirements, and identifying current and future capacity gaps. Each concept is described in turn below.

[49] Waste - GOV.UK (www.gov.uk) Paragraph: 022 Reference ID: 28-022-20141016. Revision date: 16 10 2014

[50] Waste - GOV.UK (www.gov.uk) Paragraph: 013 Reference ID: 28-013-20141016 Revision date: 16 10 2014 and Paragraph: 022 Reference ID: 28-022-20141016 Revision date: 16 10 2014

[51] National Planning Policy for Waste: Published 16 October 2014 National planning policy for waste - GOV.UK (www.gov.uk)

[52] Planning Practice Guidance, 'Can Local Plans prescribe specific technologies?' Paragraph: 019 Reference ID: 28-019-20141016 Revision date: 16 10 2014

Waste streams

A2.8 The term 'waste stream' can refer to any distinct category of waste. Various factors can be relevant when identifying and assessing different waste streams, including the source of the waste, potential uses for treated waste, applicable recycling and recovery methods, specific opportunities and challenges, relevant policy and legislation, and the appropriate level of detail.[53] Waste streams may refer to either broad categories or specific materials, it is therefore important to achieve the right balance between ensuring sufficient detail to identify waste needs and avoiding unnecessary and spurious precision[54].

A2.9 For the purposes of the WNA, waste data is split in two different types of waste stream. These two sets of categories represent different ways of classifying the same data. As such, each waste entry will appear in both one waste source category and one waste composition category:

- Waste source categories: These waste streams are based on the sources or activity that generated the waste (see 'waste source categories' section below for further details):
    - Municipal waste: Split into municipal waste from households (MfH) and municipal waste from other sources (MfOS)
    - Commercial and industrial waste (C&I)
    - Construction, demolition, excavation and mineral waste (CDE&M)
    - Waste from waste management facilities (WfWM)
    - Wastewater treatment
- Waste composition categories: These waste streams are based on the materials or products being managed (see 'waste composition categories' section below for further detail):
    - General waste
    - Inert waste
    - Green waste, food waste and sludges
    - End of life vehicles
    - Hazardous waste
    - Radioactive waste

A2.10 These two sets of categories represent different ways of classifying the same data. As such, each waste entry will appear in both one waste source category and one waste composition category.

A2.11 The waste source and composition categories described below are used consistently throughout the WNA. A comprehensive list of the waste types assigned to each category, as applied in the Worcestershire WNA, is provided in **Appendix 2: Waste streams by EWC**

[53] Understanding waste streams: treatment of specific waste

[54] Waste - GOV.UK (www.gov.uk) Paragraph: 028 Reference ID: 28-028-20141016 Revision date: 16 10 2014

code. This appendix assigns each European Waste Catalogue (EWC) code[55] to both a waste source category and a waste composition category.

Waste source categories

A2.12 The WNA classifies waste into distinct waste source categories, broadly aligned with the types of waste that waste planning authorities are advised to plan for under national guidance.[56]

A2.13 These categories are used alongside waste composition categories to understand current waste arisings. They also form the foundation for forecasting future waste generation and management needs; using waste source categories allows different growth factors (e.g. population or economic growth) to be applied to different waste sources, and many national recycling, recovery, and disposal targets are also specific to particular waste source categories (see the **Part B: Forecasting future waste arisings** for more detail).

A2.14 The waste source categories used in the WNA are summarised below. The European Waste Catalogue (EWC) codes assigned to each category are listed in **Appendix 2: Waste Streams by EWC code**.

Municipal waste

A2.15 The Waste Framework Directive (2008)[57] defines municipal waste as:

> *(a) mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste, including mattresses and furniture;*
>
> *(b) mixed waste and separately collected waste from other sources, where such waste is similar in nature and composition to waste from households;*
>
> *Municipal waste does not include waste from production, agriculture, forestry, fishing, septic tanks and sewage network and treatment, including sewage sludge, end-of-life vehicles or construction and demolition waste."*

A2.16 For the purposes of the WNA, all waste listed under EWC Chapter 20 "Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions" is considered municipal waste.[58]

A2.17 The WNA distinguishes between municipal waste from households and municipal waste from other sources (see **Methodology: current arisings** below). This distinction allows

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[55] EWC codes are set in legislation (EUR-Lex - 02008L0098-20180705 - EN - EUR-Lex (europa.eu) The List of Wastes (England) Regulations 2005 (legislation.gov.uk)) and are used by the Environment Agency when issuing environmental permits for waste management and monitoring waste data.

[56] Waste - GOV.UK

[57] EUR-Lex - 02008L0098-20180705 - EN - EUR-Lex (europa.eu) also Waste and Emissions Trading Act 2003 (as amended by The Waste (Circular Economy) (Amendment) Regulations 2020).

[58] For WasteDataFlow "material type" is used instead of EWC code, for the purposes of the WNA material type used in WasteDataFlow has been assigned an assumed EWC code. This is the EWC code which is the closest match for the waste material type. See **Methodology: Current arisings** and **Appendix 3: WasteDataFlow material type** for details.

projections to be based on relevant growth indicators such as household or population growth for household waste, and economic factors for other sources.

Commercial and Industrial waste (including agricultural waste)

A2.18 While much of the waste produced by businesses is considered in the WNA as "municipal waste from other sources", some business waste is different in character to municipal waste and is categorised as "commercial and industrial waste" (C&I). The WNA includes agricultural wastes and healthcare wastes within the C&I waste stream.

A2.19 For the purposes of the WNA, all waste listed under EWC Chapters 03 to 16 and Chapter 18 are considered as commercial and industrial waste (see **Appendix 2: Waste streams by EWC code**).

Construction, Demolition, Excavation and Mineral waste

A2.20 Construction and demolition waste is recorded under EWC Chapter 17 "Construction and demolition waste". The WNA also considers wastes arising from mineral development (EWC Chapter 01) alongside construction and demolition waste, because where this waste arises in Worcestershire it is from sand and gravel, clay or crushed rock working and is therefore similar in nature and composition to the inert part of construction, demolition and excavation waste. In addition, the scale of waste arisings recorded from mineral development in Worcestershire is small, at less than 250 tonnes per annum[59].

A2.21 This combined category is referred to as Construction, Demolition, Excavation and Mineral (CDE&M) waste in the WNA.

Wastes from waste management facilities

A2.22 Waste is often handled at multiple facilities. When it is treated or altered at one site, it may be reclassified and recorded under EWC Chapter 19 "wastes from waste management facilities, off-site wastewater treatment plants and the preparation of water intended for human consumption and water for industrial use (excluding hazardous waste)" before it moves between facilities. This is a normal part of the waste management process. Some of this waste undergoes further treatment or recovery, while some is ultimately disposed of.

A2.23 The WNA includes all waste under EWC Chapter 19 in the Wastes from Waste Management Facilities (WfWM) category.

Wastewater treatment

A2.24 Wastewater treatment plants are waste developments that are determined by the waste planning authority. Plan-making may need to consider identifying suitable sites for new or enhanced wastewater and water supply infrastructure where there is a need.[60] However, the assessment of future wastewater management needs is largely managed by water companies through their Asset Management Plans and Drainage and Wastewater Management Plans. Severn Trent Water Ltd (STWL) is the statutory undertaker for managing

[59] Data from the Environment Agency Waste Data Interrogators for 2019-2022. Most minerals waste is managed on-site, and only those wastes moved to other waste management facilities are recorded in the Waste Data Interrogator.

[60] Water supply, wastewater and water quality - GOV.UK

wastewater throughout Worcestershire[61]. STWL's plans are informed by future growth identified in Local Plans and requirements for improvements in the water environment regulated by the Environment Agency.[62] It is through the district councils' plan-making process that the need for new or significantly expanded wastewater infrastructure is identified as part of the Infrastructure Delivery Plans (IDPs). The IDPs are required to support district Local Plans.

A2.25 The most recent STWL Drainage and Wastewater Management Plan (2023) identifies investment at several existing wastewater treatment works in Worcestershire, but does not identify the need for new facilities or significant expansion at existing sites.[63] This is reflected in the conclusions of the IDPs.

A2.26 The need for capacity to manage wastewater will, therefore, not be assessed in the Waste Needs Assessment. However, Worcestershire County Council has engaged in discussions with STWL to understand any provisions that may need to be made for wastewater as part of the plan-making process for the Waste Plan.

Waste composition categories

A2.27 The WNA classifies waste into different waste composition categories. Within each category, wastes are typically managed through similar types of facilities, which tend to have comparable land-use planning considerations. This means that, at each level of the waste management hierarchy, wastes within the same composition category are generally treated or disposed of in similar ways and at similar types of sites. Where disposal is required, wastes in each category are typically sent to the same type of landfill.

A2.28 Waste composition categories are used alongside waste source categories to understand current waste arisings. However, only waste composition categories are used when assessing capacity and calculating equivalent self-sufficiency, due to their closer alignment with the types of facilities at which waste is managed (i.e. waste management categories).

A2.29 The waste composition categories used in the WNA are summarised below. The corresponding EWC codes for each category are listed in **Appendix 2: Waste streams by EWC code**.

General waste

A2.30 This category represents approximately two-thirds of the non-hazardous waste arising or managed in Worcestershire. It includes a wide range of materials such as packaging waste, residual "black bin" waste, and most non-hazardous waste from manufacturing, healthcare, and waste management activities.

A2.31 Where these wastes are managed at the higher levels of the waste management hierarchy, this is usually through physical or chemical treatment at facilities that are similar in character to industrial uses and can be accommodated within industrial estates. Where recycling is not possible, recovery of energy from waste through thermal treatment is usually appropriate. If disposal is necessary, it is usually via thermal treatment without energy recovery or at non-hazardous landfill sites.

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[61] South Staffs Water supplies water to two small areas of Worcestershire, but all wastewater management is dealt with by Severn Trent Water Ltd.

[62] Water supply, wastewater and water quality - GOV.UK

[63] Drainage and wastewater management plan | Our plans | About us | Severn Trent Plc

Inert waste

A2.32 Inert waste accounts for around 20% of the non-hazardous waste arising or managed in Worcestershire. It includes materials such as concrete, bricks, tiles, ceramics, and soil and stones, typically from municipal or CDE&M waste sources.

A2.33 These wastes are suitable for reuse, recycling, or physical treatment, but not for thermal or biological treatment, nor for energy recovery. Facilities managing inert waste often process and sort materials into usable products like recycled aggregates or graded soils. These activities can be carried out at fixed sites or using mobile plant, and are often conducted outdoors. Inert waste may be recovered to land or disposed of at inert landfill sites. Inert landfill sites are restricted to only managing inert waste, however other types of landfill may accept inert waste.

A2.34 It should be noted that where it is "certain" that "uncontaminated soil and other naturally occurring material excavated in the course of construction activities … will be used for the purposes of construction in its natural state on the site from which it was excavated" this material is not considered to be waste.[64] However excavated material that are to be treated on or off site are generally considered to be waste.[65]

Green waste, food waste, and sludges

A2.35 This waste composition category includes plant and vegetable waste from agriculture, food waste, waste from parks and gardens, and sludges from wastewater treatment. It accounts for approximately 10% of the non-hazardous waste managed or arising in Worcestershire. These wastes are grouped together because they are typically managed through biological treatment methods, such as windrow composting, in-vessel composting, or anaerobic digestion. Under the Government's Simpler Recycling policy, food and garden waste may be collected together,[66] making it difficult to distinguish between them in the data.

A2.36 Due to their high moisture content, these wastes are generally less suitable for thermal treatment or energy recovery. When disposal is necessary, it is typically at non-hazardous landfill sites, however the national Net Zero Strategy[67] commits to the near-elimination of municipal biodegradable waste to landfill by 2028.

End of life vehicles

A2.37 This waste composition category includes motor vehicles which have reached the end of their lives. ELVs are often managed at small-scale open-air facilities that are different in character to other waste management facilities.

A2.38 ELVs make up only 1% of the waste managed or arising in Worcestershire. They are considered separately in the WNA due to the specific nature of the facilities required and the potential impact of upcoming changes to the waste exemptions regime, which will affect how ELV sites are regulated and how data is reported (see **Appendix 5: Exemptions**). The transition to electric vehicles is also expected to influence the types of waste generated and

[64] Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Text with EEA relevance)

[65] The Definition of Waste: Development Industry Code of Practice Version 2 March 2011 Published by Contaminated Land: Applications in Real Environments (CL:AIRE) DoW CoP Main Document

[66] Simpler Recycling in England: policy update - GOV.UK

[67] Net Zero Strategy: Build Back Greener - GOV.UK HM Government 2021

the operation of these facilities. Treating ELVs as a separate category will allow the WNA to monitor these changes more effectively over time.

Hazardous waste

A2.39 Hazardous waste is defined under the EU Waste Framework Directive as waste with hazardous properties, such as being explosive, oxidising or flammable, or being toxic or harmful to human health or toxic to the environment. These wastes often require specialised treatment facilities and cannot be disposed of at non-hazardous waste landfill sites unless the site has separate cells for the relevant waste.

A2.40 The WNA considers all hazardous waste within the same composition category: as facilities for managing hazardous wastes are typically specialised and serve wider geographic areas, seeking to achieve equivalent self-sufficiency on sub-categories of hazardous waste is unlikely to be appropriate.

Radioactive waste

A2.41 Three sites in Worcestershire hold Radioactive Substance Permits for keeping or using radioactive substances for diagnosis and therapy and for storing or disposing of the resulting waste radioactive substance:

- Worcestershire Royal Hospital[68]
- Redditch Clinical Waste Incinerator[69]
- Three Counties Equine Hospital[70]

A2.42 Due to the small scale of arisings, and the fact that the Radioactive Substance Permits for these sites allow the release of waste radioactive substance to water and air[71], the volumes of radioactive waste from these sites that require onward management is incredibly small. Other sites in the county may produce very low volumes of very low-level radioactive waste, but producers are exempt from reporting quantities of waste produced and managed. This waste will generally be managed in the same manner as general waste produced on the source site.

A2.43 Given the small volumes of very low-level radioactive waste arising in Worcestershire, the WNA does not consider radioactive waste further.

Waste management categories

A2.44 WNAs should recognise the need for a mix of types and scale of facilities and identify the quantity of waste requiring different types of management over the plan period, but waste planning authorities should not prescribe the waste management techniques or technologies that will be used to deal with specific waste streams. To enable flexibility and to avoid being technology specific, the WNA groups different types of waste management

[68] Pollution Inventory - data.gov.uk

[69] Pollution Inventory - data.gov.uk

[70] Permit number EPR/AB3891DG. As a smaller producer of radioactive substance this site does not report into the Pollution Inventory dataset.

[71] Pollution Inventory - data.gov.uk

facilities into broad waste management categories aligned with the waste management hierarchy.

A2.45 Waste management categories are used to assess the level of the waste management hierarchy at which waste arising in Worcestershire is currently managed, as well as to identify how much capacity already exists in the county within each waste management category. This forms the basis for calculating current and future needs and identifying any capacity gap.

A2.46 The WNA uses the following waste management categories:

- Re-use and recycling
    - Treatment and recycling facilities
    - Transfer
- Other recovery facilities
    - Energy from waste
    - Recovery of waste to land
- Disposal
    - Incineration and combustion
    - Landfill
- Other (e.g. mobile plant)
- Transfer

A2.47 These categories are described below and defined in more detail in **Appendix 4: Waste management categories.**

Re-use and recycling

Treatment and recycling facilities

A2.48 Treatment and recycling facilities are recovery operations that prepare waste for re-use, or reprocess waste materials into products, materials, or substances. These facilities are often part of a treatment chain involving multiple facilities. They include facilities for the biological, chemical or physical treatment of waste but do not include energy recovery or reprocessing into materials that are to be used as fuels or for backfilling operations.[72,]

A2.49 Some facilities carry out both transfer and treatment activities. For the purposes of the WNA such sites are categorised as treatment and recycling capacity because it is not practical to identify the proportion of capacity that is for transfer and the proportion of capacity that is for treatment. While this may slightly overestimate treatment capacity, based on officer knowledge of local facilities and the scale of waste managed, this is considered a proportionate and reasonable approach.

[72] EUR-Lex - 02008L0098-20180705 - EN - EUR-Lex (europa.eu)

Transfer

A2.50 Waste transfer stations are facilities where waste is collected, sorted, or bulked before being transported to another site for treatment or disposal. This includes skip yards and household waste recycling centres. The WNA includes storage facilities within this category; storage is defined as activities where waste may be bulked up and stored temporarily. Because both transfer and storage perform a similar function of bulking waste before onwards transfer to further facilities for treatment, they are considered together in the WNA.

A2.51 Some transfer facilities also undertake some form of treatment of a proportion of the waste managed at these sites (such as screening soils), which are ancillary to the main transfer operation.[73] However, it is not possible to quantify the scale of treatment at these sites from the data available.

Other recovery facilities

A2.52 Other recovery facilities enable waste to serve a useful purpose by replacing other materials that would otherwise have been used, but do not result in a recycled product. They include deposit of waste to land where classified as recovery rather than disposal[74] and incineration with a high level of energy recovery.[75] In the UK, incineration is considered to be a recovery operation where it achieves "R" (Recovery) status under Environment Agency requirements.

Disposal

A2.53 Disposal includes incineration and combustion of waste with no or limited energy recovery, as well as landfill.[76]

Incineration and combustion

A2.54 Where the incineration or combustion of waste includes only limited energy recovery, it is classed as a disposal activity. This category is used in the WNA where there is no evidence of "R" status being achieved.

Landfill

A2.55 Landfilling involves the disposal of waste onto or into land. It is the least preferable option for managing waste and should be limited to the necessary minimum.

A2.56 Under Article 4 of the Landfill Directive, every landfill must be classified and in England landfills are divided into:

- landfills for inert waste
- landfills for non-hazardous waste
- landfills for hazardous waste (which can include a non-hazardous landfill with a separate cell for stabilised non-reactive hazardous waste (SNRHW))

[73] Environment Agency: Waste transfer stations: pollution inventory reporting https://www.gov.uk/government/publications/pollution-inventory-reporting-guidance-notes

[74] Where identified as recovery in the EA Waste Data Interrogator

[75] eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017DC0034

[76] eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017DC0034

Classification in this way aims to ensure that engineering, operational and waste acceptance standards are appropriate for the type of waste to be landfilled. Although landfills for inert waste can only accept inert waste, non-hazardous landfill sites can accept inert waste.

A2.57 Unlike other types of waste management capacity (which has an annual throughput), the capacity at a landfill site is finite.

Other

A2.58 Some types or facility do not fit into these categories, including mobile plant and lagoons. Whilst there are none of these facility types currently recorded in Worcestershire, some waste which arises in Worcestershire is managed at "other facilities" elsewhere in the country.

Sources and use of data

A2.59 This section outlines the source of information or waste data and the advantages and limitations of each dataset. It also identifies the extent to which each dataset is used in the WNA: [77]

- EA Waste Data Interrogator (WDI)
- EA Hazardous Waste Interrogator (HWI)
- EA WasteDataFlow (WDF)
- EA Remaining Landfill Capacity Data
- Planning permissions and environmental permits and other information about site throughputs

A2.60 Data in this document is rounded to the nearest whole number.[78] The only exception is in the results table within the **Worcestershire Baseline: Equivalent self-sufficiency**, where figures are rounded to the nearest 100 tonnes. This approach is taken because the WNA involves multiple stages of calculations, for example, baseline waste arisings data is used to forecast future need, and both arisings and capacity data are used to calculate whether equivalent self-sufficiency has been achieved. Rounding to the nearest 100 tonnes in only the final results helps avoid compounding errors that could arise from rounding at each intermediate stage.

A2.61 However, whilst appearing "precise" in terms of figures being given down to single unit level, the data presented in other tables is itself the result of the considerations set out in in this chapter, including various caveats, averages and use of proxies, outlined below and therefore no single number should be viewed as "precise" in and of itself. The data is prepared and analysed to enable understanding of waste arisings and management trends at the strategic-scale, and should be regarded in this context.

[77] See "Appendix 1: Waste Data used in this WNA" for links to where each of these can be found.

[78] The 'totals' in each table may include a small rounding error as they are a sum of the rounded whole numbers. Each table is internally consistent but there may be small differences when comparing results across different tables depending on the data split.

Waste Data Interrogator

A2.62 The main source of waste data for England, and the main source of data for the WNA, is the 'Waste Data Interrogator' (WDI) published annually by the Environment Agency. All operators of waste management facilities with an environmental permit for the management of waste[79] are required to provide the Environment Agency with details of the quantities and types of waste they deal with i.e. waste received into site and waste sent on from site to other facilities or processes. This information is recorded using European Waste Catalogue (EWC) codes and is published in the WDI. Data on hazardous waste is also included where applicable.

A2.63 The WDI provides information on the type and location of waste management facilities and the type and quantity of waste (by EWC code) managed at each site. It also includes data on waste movements between facilities across England, identifying the origin and destination of waste by WPA area and specifying the type of facility involved. Because the data is categorised by EWC code, it can be used to estimate the quantity of waste managed for each waste source and composition category used in the WNA. Details of the facility type can be used to identify the waste management category of both sites in Worcestershire and sites receiving waste from Worcestershire.

A2.64 The WDI covers all of the waste source and composition categories addressed in the WNA. For most waste source categories, the information in the WDI is the most robust data available.

Waste removed vs waste received in the WDI

A2.65 The Waste Data Interrogator (WDI) is published annually and includes two datasets: **"waste received"** at waste management facilities and **"waste removed"** from those facilities. However, these datasets can differ significantly, even when querying broadly comparable data. For example, in the 2022 dataset, the total amount of waste managed by facilities in Worcestershire was **36% higher** in the "waste received" dataset compared to the "waste removed" dataset. Similarly, the total amount of waste originating from Worcestershire was **29% higher** in the "waste received" dataset. Correspondence with the Environment Agency confirms that the "waste received" dataset is considered the more accurate of the two. Therefore, the WNA uses data from the "waste received" dataset.

A2.66 There is risk that this will have a bigger impact on the data for wastes from waste management facilities, as the quantities of waste from waste management reported in the waste received dataset is between 19% and 32% lower than in the waste removed dataset for every year in last 5 years, whereas overall waste is higher in this dataset. Although there is a risk that using the wasted received dataset might under report the waste managed in this waste stream, this is considered an acceptable risk when balanced against the risks of using inconsistent data.

Basic waste types in the WDI

A2.67 The WDI includes an option to group wastes by the following "basic waste types":

[79] The 'totals' in each table may include a small rounding error as they are a sum of the rounded whole numbers. Each table is internally consistent but there may be small differences when comparing between Results across different tables depending on the data split.

- Hazardous
- Household/Industrial/Commercial
- Inert/C&D

A2.68 However, there are several anomalies in these pre-set categories with some waste codes seemingly assigned to incorrect basic waste types; for example some hazardous waste codes are grouped into the " Household/Industrial/Commercial" basic waste type in the WDI. In addition, Inert and C&D waste have been grouped together, despite approximately a third of CDE&M waste being non-inert waste and some inert waste coming from municipal sources.

A2.69 The WNA therefore, does not use these basic waste types and instead uses EWC data for provided information according to the waste source and composition categories outlined in the **Waste streams** section above and detailed in **Appendix 2: Waste streams by EWC Code**.

Limitations of the WDI

Waste that is not included

A2.70 The WDI records waste that is managed at waste management facilities in England with an environmental permit for the management of waste [80], but does not record waste at the point of production. It does not include waste managed solely under a waste exemption and/or at registered scrap metal sites; waste disposed of illegally; or waste managed outside of England without first being handled by a waste management site within England.

Exemptions

A2.71 Some waste operations are exempt from needing an environmental permit[81]. Exemptions are for activities where the risk to health or the environment has been assessed as low on the basis of that activity alone[82] and "provide a light-touch form of regulation for small-scale, low risk waste management activities".[83] There are over 2,200 exempt sites in Worcestershire with more than 8,300 registered exemptions between them.[84] Most of these are at sites that are not primarily used for waste management operations, with fewer than 2% of total registered exemptions in Worcestershire being at sites with planning permission for waste uses. In 2024 there were 106 waste management sites in Worcestershire[85], 84 had an environmental permit, 16 were on the Scrap Metal register and 33 had one or more exemptions[86]. Only nine waste sites operated solely under exemption(s), this was equivalent

[80] Waste management licences, Authorised Treatment Sites (ATF) depolluting and dismantling End of Life Vehicles (ELV) and Installations Permits

[81] Environmental permits include, but are not limited to, waste management licences

[82] Defra, Reducing crime at sites handling waste, and introducing fixed penalties for waste duty of care: Consultation outcome, Supplementary government response, Updated 6 October 2023. Available at https://www.gov.uk/government/consultations/reducing-crime-at-sites-handling-waste-and-introducing-fixed-penalties-for-waste-duty-of-care/outcome/supplementary-government-response#:~:text=Waste%20exemptions%20are%20for%20activities,carried%20out%20on%20the%20site.

[83] https://consult.defra.gov.uk/waste/crime-and-poor-performance-in-the-waste-sector/user_uploads/part-b-1.pdf

[84] As at January 2024: 2,203 sites in Worcestershire with a total of 8,348 registered exemptions between them.

[85] See section A4 for details of how waste sites are defined and identified for the purposes of the WNA

[86] Some sites had a permit/were on the scrap metal register and had registered exemptions.

to around 9% of all waste management sites in Worcestershire. It is not currently possible to identify the contributions that sites managing waste under an exemption make towards waste management capacity in the county as this information is not reported through the environmental permitting regime.

A2.72 This is likely to impact on data for C&I waste, particularly in relation to agricultural waste, end of life vehicle sites and scrap metal recovery. This a national issue and the lack of information about waste managed under exemptions is considered by Defra in the methodology for estimating Commercial and Industrial (C&I) waste in the UK statistics on waste;[87] these statistic do not take account of waste managed through exemptions when estimating arisings, on the basis that most waste will move from exempt sites to sites with an environmental permit during its treatment and will therefore be recorded in the WDI dataset at a later stage in its management. There is a risk that this may underestimate waste arisings, but in the absence of more robust data there is no reasonable alternative.

A2.73 It is also widely acknowledged that the WDI dataset is unlikely to reflect the full scale of CDE&M waste[88] because much of this waste is either recycled through mobile plant at the site where the waste is both produced and then re-used, or is managed at exempt sites, both of which do not report data into the WDI. Robust data on arisings of CDE&M waste - including data on the amount sold as recycled aggregate - is difficult to obtain, and although there is some guidance available on assessing the levels of recycled aggregates, there is no standard methodology for calculating arisings of CDE&M waste.[89] Defra provide estimates for C&D arisings for England[90], but these estimates are dependent on several key assumptions relating to the role of permitted sites, registration of mobile plant and the volume of aggregate production. These assumptions mean there is a high degree of uncertainty in the estimates. Whilst Defra's methodology has been revised following discussion with industry[91], it cannot be replicated on a WPA scale. As such, the Defra estimates are not used to inform arisings calculations in the WNA, and the WDI remains the best available data.

A2.74 Nationally, changes to the current exemptions regime are proposed[92] which would prohibit the use of waste exemptions at sites with an environmental permit and remove exemptions

[87] UK statistics on waste - GOV.UK

[88] National Waste Technical Advisory Board Chairs and aggregate Working Party Chairs (2022). Recycled Aggregates Data: Guidance on Assessing Levels of Recycled Aggregates

[89] 'Guidance on Assessing Levels of Recycled Aggregates: Living Document' (May 2022) (by representatives from the National Waste Technical Advisory Board Chairs and Aggregate Working Party Chairs), details the various options available for the collection and collation of data to estimate arisings and sales of recycled aggregates, based on discussions with representatives of the regional Waste Technical Advisory Boards and Aggregate Working Parties so Mineral and Waste Planning Authorities can choose to employ one or more of the methods best suited to their requirements.

[90] UK statistics on waste - GOV.UK

[91] "In the February 2019 release, revisions were made to the full time-series for the recovery rate from non-hazardous C&D waste. This was due to updates made to the underlying Mineral Products Association data, following revisions to the ONS construction industry growth index on which their estimates are based. The revisions resulted in increases of 10-20% in absolute tonnages for all years, in comparison to the previously published figures." Official Statistics, UK statistics on waste, Updated 28 June 2023 - GOV.UK (www.gov.uk)

[92] Reducing crime at sites handling waste, and introducing fixed penalties for waste duty of care: Consultation outcome, supplementary government response 2023

relating to use of depolluted end-of-life vehicles for parts[93], mechanically treating end-of-life tyres[94] and the recovery of scrap metal[95]. Once these changes are in place an environmental permit will be required for these operations and data will be reported in the WDI. Forthcoming changes to the exemptions regime are also expected to "introduce a requirement for operators to keep and make records available on request for all exemptions",[96] but it is unclear whether this data will be made available to WPAs. When the proposed changes to the exemption regime are in place this will be taken into account when updating the WNA.

A2.75 For further discussion about exemptions in Worcestershire and the approach taken in the WNA see **Appendix 5: Exemptions.**

Waste Carriers and Brokers Public Register for England

A2.76 Businesses must register on this list if they transport waste; or buy, sell or dispose of waste; or arrange for someone else to buy, sell or dispose of waste. Entries on this register are deemed to have either no or low relevance to land-use planning. Any substantive impacts arising from waste sites would be controlled through the planning and/or permitting process and would therefore be identified through other datasets.

Double-counting of waste in the WDI

A2.77 The WDI records movement of waste between waste management facilities. It is common for waste to be handled at more than one facility, for example if it is sorted at one facility and treated at another, and the WDI records this waste each time it is received at a new facility. The WDI data therefore includes an element of double-counting when used to estimate the amount of waste arising from Worcestershire.

A2.78 Although this will result in an overestimate of arisings, it gives a good indication of how much waste capacity is needed because it includes the need to make provision for some waste to be managed at multiple sites. It is therefore still considered appropriate to use this data to identify whether equivalent self-sufficiency is achieved or the scale of any capacity gap.

A2.79 There is no robust data on the scale of "double-counting" within the WDI data. This is a known risk in relation to waste data and is unavoidable until the quality of the data improves, such as through the introduction of digital waste tracking.[97]

Origin and destination in the WDI

A2.80 Where waste is moved from one site to another, the WDI records the waste planning authority area of the "origin" and the "destination". This means it is possible to see the quantities of waste moving within Worcestershire, the quantities of waste being exported to other waste planning authority areas, and the quantities of waste being received from

[93] Exemption category U16

[94] Exemption category T8

[95] Exemption category T9

[96] 'Reforming Waste Exemptions: Annexure: Annex 8 – Technical amendments to the Environmental Permitting Regulations', available at: https://assets.publishing.service.gov.uk/media/65201b3c2548ca0014ddeec0/waste_exemptions_government_response_annex.pdf

[97] Digital waste tracking service - GOV.UK

outside the county. However, the term “origin” can be unhelpful, as it simply reflects the starting point of a single movement of waste between authorities or within an authority. There is no way of knowing whether the point of production was within Worcestershire or elsewhere. The movement of waste between facilities and between WPAs reflects the normal workings of the waste management sector and is not, in itself, of concern. It does, however, hamper the monitoring of waste movements from source to final treatment. The inability to track the waste throughout its life-cycle means that the “origin” will not always show the authority area in which the waste was first generated, and so cannot be relied upon as a completely accurate way of identifying arisings.

A2.81 This is particularly the case for specialist/strategic facilities that receive waste from many different WPA areas; the onward movement of such waste from these facilities would show the facility’s WPA as the origin, but would fail to reflect the multiple source locations of that waste before it came to the facility. This may result in WPAs with strategic facilities appearing to generate a greater quantity of certain waste source categories.

A2.82 A mandatory national digital waste tracking system is due to be phased in from April 2026[98]. This is likely to make waste monitoring more robust and may capture waste that was not previously recorded, through a requirement to start tracking waste from the place where it is produced.[99] This is likely to improve the data available for waste planning authorities over time.

Reliability of WDI data

A2.83 The WDI is published annually, but there are sometimes errors with the data, such as facilities being incorrectly assigned to wrong Waste Planning Authority area or sites missing from data. Where significant issues are identified and subsequently addressed by the EA this can result in multiple versions of the WDI being issued each year, for example there were 4 versions of the 2022 WDI.

A2.84 Worcestershire County Council has previously informed the Environment Agency of sites incorrectly assigned to Worcestershire in the WDI and has informed the EA of sites in Worcestershire with a waste management licence or other Environment Permit for waste management, but for which data doesn’t appear in the WDI. The accuracy of the data that is published in the WDI will be checked to inform the WNA and the WNA will also make reference in **Appendix 1: waste data used in this WNA** to the version number where WDI data is used.

[98] Digital waste tracking service - GOV.UK

[99] Tracking of waste from mines or quarries will not be required unless the waste is being removed off site. There will also be exemptions for household waste collected from domestic premises by local authorities - the waste tracking records for this waste will begin when it is taken into a waste receiving site. Where incidental waste is generated and moved by people who are not providing a specific waste management service, for example tradespeople and mobile service operators, digital waste tracking records will also not be required for the first movement of that waste to a collection point. Instead, digital waste records will be required when the waste is moved from the collection point UK to introduce mandatory waste tracking from 2025 (endsreport.com)

Using the WDI to identify trends

A2.85 The WDI has been provided to assist in planning for new waste facilities since 2006, however the Environment Agency has advised that "the comprehensiveness and validity of the WDIs has been constantly improving, so they get progressively less reliable going back in time." [100]

A2.86 In developing the methodology for the WNA, the use of trend data over a 10-year period had been considered, however this was dismissed as improvements in the data would mean that considerations of trend over this time-period could be misleading. The WNA therefore uses, 5 years of historic data in order to establish a baseline for the scale of waste arisings and considers the 5-year peak throughput for estimating waste management capacity (see **Methodology: Current arisings** below for more details).

Hazardous Waste Interrogator

A2.87 The Environment Agency's Hazardous Waste Interrogator (HWI) provides data relating to movements of waste which is consigned as hazardous when it is moved and/or changes hands. Hazardous waste producers are required to provide the EA with data about the wastes they move, and the site where the waste is disposed or recovered is required to inform the EA of the details of the wastes they receive. The WDI is used instead of the HWI for the WNA for several reasons, set out in the following paragraphs.

A2.88 Although a summary of the movements of hazardous waste is provided annually in the HWI, hazardous waste producer data is commercially confidential and therefore only high-level information is provided about the type and quantity of waste and the waste planning authority area where the waste was produced and where the waste management facility is located. Individual site names and producer details are not included. This differs to the WDI which includes details of the sites managing waste and the wastes managed at those sites (by EWC code). In addition, the HWI does not include details about the waste managed at individual sites, it therefore cannot be used to calculate both the scale of waste arisings and waste management capacity; using one dataset for arisings and another for capacity would carry a significant risk of not using comparable data to calculate equivalent self-sufficiency.

A2.89 Using the WDI for hazardous waste also allows for a consistent approach to be applied to all waste streams. The quantities of waste reported in the HWI differ from the WDI, even where comparable filters are applied. This is in part because the HWI is informed by consignment notes, which may not always record the precise weight of hazardous waste and may instead contain estimates. This is especially the case where the quantity of hazardous waste is difficult to measure. [101] Due to the different methods of data collection and publication for the WDI and HWI, each dataset generates different results. There is inherently a risk of under - or over - estimating hazardous waste generation and movement by using figures from just one dataset or the other. In 2022, levels of hazardous waste arising in Worcestershire were recorded as 33% higher in the HWI than in the WDI. However, in 2023, levels of hazardous waste arising in Worcestershire were recorded as 38% lower in the HWI

[100] Communication by email with an Environment Agency Waste and Climate Planning Specialist in January 2024

[101] Such as discarded equipment containing chlorofluorocarbons (CFCs), where the quantity of the waste containing CFCs may only be known once the waste has reached a processing site and is stripped into its constituent hazardous and non-hazardous elements or End of Life Vehicles where waste oils and other hazardous elements may only be weighed at the processing site, rather than at the site where the waste is produced.

than in the WDI. When looking at national data there is more consistency, with the levels of hazardous waste arising in England recorded as higher in the WDI than in the HWI for every year in the last 5 years. Using the WDI is therefore likely to provide a more precautionary approach and reduce the risk of under-estimating, despite there being potential local variations.

WasteDataFlow

A2.90 WasteDataFlow is used in the WNA alongside the WDI in relation to arisings of municipal waste to identify the quantities of municipal waste which can be attributed to being from households.

A2.91 WasteDataFlow[102] is the data collection system for Local Authorities in the UK to report on the waste that they collect and manage. Since 2015 local waste collection and disposal authorities have been required to report data recording the treatment and end destination of all wastes managed into WasteDataFlow through an interface referred to as Qu100. The Qu100 data includes all Local Authority Collected Waste including wastes from households and waste from some small businesses where arrangements are in place, it also includes a small amount of waste that is sent for "re-use" at charity shops. In Worcestershire, local authority collection of waste from businesses is currently very small-scale.

A2.92 WasteDataFlow Qu100 data is available on an annual basis, it is a robust dataset and can be filtered to remove double-counting of waste movements, it therefore provides useful information about municipal waste from households. However, the raw data needs to be manipulated before it can be used in the WNA. WasteDataFlow presents data by "material type" rather than EWC code, so work has been undertaken as part of the WNA to match "material type" used in WasteDataFlow to the EWC codes used in the WDI (see **Appendix 3**). Qu100 data also includes some waste that falls outside of the definition of municipal waste used in the WNA;[103] these wastes are removed from the raw data for purpose of this WNA. More details are set out in **Methodology: Current arisings** below.

Remaining Landfill Capacity data

A2.93 Environment Agency Remaining Landfill Capacity data is published annually and reports remaining landfill capacity (void space) by site in England at the end of the calendar year. Remaining Landfill Capacity data is used in the WNA as one of the factors taken account in identifying current capacity and considering likely future needs.

A2.94 Remaining Landfill Capacity data is provided for each site in cubic metres and collated into a national dataset. This dataset includes detail of the type of landfill site[104]. It is the most robust data available but has some limitations.

A2.95 Where a site can receive different types of waste (for example non-hazardous landfill with a cell for stabilised non-reactive hazardous waste), these different types of void space are not recorded separately, with just a single combined figure provided for each site. In addition, the dataset only reports on landfill void space that is 'ready for use'. In some cases, landfill

[102] A web-based database, 'WasteDataFlow' (WDF) is publicly accessible at: http://www.wastedataflow.org

[103] Bicycles (EWC 16 01 16), Gas bottles (EWC 16 05 04), Mixed Tyres (EWC 16 01 03), Plasterboard (EWC 17 08 02), Incinerator Bottom Ash (EWC 19 01 12), Metals from Incinerator Bottom Ash (EWC 19 01 12).

[104] 'Hazardous Merchant Landfill', 'Non-hazardous landfill with SNRHW cell', 'non-hazardous landfill', 'Inert Landfill', 'Hazardous Restricted Landfill'

sites may have planning permission for more capacity than is shown in the "Remaining Landfill Capacity" data, because some of the cells within the sites will not yet have been engineered, because the prior extraction of minerals has not yet created the void space, or because they formed part of a phased restoration of a mineral working and the development had not yet progressed to the stage where it was included in this data. Once those cells are fully ready, the capacity they provide will appear in the dataset. However, estimates of remaining void can still vary over time due to a number of factors including compaction rates, new site surveys and changes to proposed levels.

A2.96 Sites that have planning permission but are awaiting an environmental permit to be issued are not included in EA Remaining Landfill Capacity data.

A2.97 This data set is also discussed in **Calculating landfill capacity** below.

Planning permissions and environmental permits

A2.98 Planning permissions and environmental permits can provide useful contextual information about the type of site, its location and whether it is a temporary or permanent facility. This information is used in the WNA to inform the waste sites list (see **Methodology: current waste management capacity**).

A2.99 Some planning permissions also include conditions limiting the maximum throughput of the site. This information is not used in the WNA as an indicator of individual site capacity for several reasons:

- Less than 40% of waste sites in Worcestershire have throughput limits in their planning permission. This evidence is therefore not available consistently.
- Where maximum throughput limits are included in planning conditions, they do not necessarily appear to reflect the operational capacity of the site:
- 40% of the sites in Worcestershire with throughput limits in their planning permission operated at a throughput that was less than half of the maximum tonnage identified in the planning permission. [105]
- Only 20% of the sites in Worcestershire with throughput limits in their planning permission operated at 90% or more of the maximum throughput in the planning permission. [106]

A2.100 All sites with an environmental permit for the management of waste also have a throughput limit. However, in most cases these permits are "standard rules" permits, rather than bespoke permits. This means that the throughput limit will be a 'generic' figure that applies to many such facilities of the same type, instead of reflecting the specific circumstances of a particular site. Even where a 'bespoke' permit is issued, this will be expressed as an upper limit that, in a similar way to a planning permission limit, may not ever be reached. In addition, the site throughput in the planning permission and the environmental permit are often not the same.

A2.101 This means that using the 'theoretical capacity' set out in planning permissions or environmental permits is unlikely to represent the operational capacity of sites, which can be influenced by factors such as site size, design, plant and processing capacity, and working

[105] Based on site throughput in the WDI 2012 – 2022.

[106] Based on site throughput in the WDI 2012 – 2022.

hours, and could risk overestimating the actual processing capacity available in the county. In turn, this could obscure whether or not equivalent self-sufficiency was being achieved in reality, and the scale of any capacity gap which may need to be addressed in the development of the Waste Plan. In addition, it would not be possible to identify with any confidence the types of waste being managed, either by waste stream or composition category.

Surveying waste sites

A2.102 Worcestershire County Council considered surveying all waste management sites, or only those that are not in the WDI, to gather data on their throughput and capacity. However for such data to be used with confidence in the WNA, it would require a high response rate, commitment from operators to consistent annual reporting to ensure comparability over time, and a mechanism to check and verify the data provided.

A2.103 These conditions were considered unlikely to be met, for several reasons:

- There is currently no requirement for operators of exempt sites to report the quantities of waste they manage under existing regimes, and the Council does not have the power to compel them to provide such data to support the plan-making process;
- Approximately one-third of exemptions in Worcestershire relate to storage, where limits apply to the volume of waste on site at any one time, not annual throughput;
- Around half of the exempt sites with planning permission have no planning condition requiring throughput records to be kept;
- Those sites operating under Environmental Permits already report data to the Environment Agency which is then provided to waste planning authorities in the Waste Data Interrogator, and therefore asking them for data would be superfluous;
- The Council does not have any existing mechanism to check and verify that any data which might be provided is accurate.

A2.104 Even where some data might be available, it is unlikely that operators of exempt sites could provide information aligned with the **waste composition categories** used in the WNA. Additionally, annual variation in survey response rates would make it difficult to identify reliable trends over time.

A2.105 On balance, it was considered that the WDI should be used for the majority of sites, and proceeding without equivalent data for sites that are not currently on the WDI is low risk, because the sites are either not currently active and historic data may not be relevant to future operations, or the sites are exempt or ATF sites which by their very nature are small, low-risk operations. Fewer than 2% of all registered exemptions in Worcestershire are associated with sites that also have planning permission for waste uses. Furthermore, anticipated reforms to the exemptions regime are expected to reduce the number of sites operating under exemptions in the near future which may improve data reporting.

Methodology: Current arisings

Overview of waste arisings

A2.106 The WNA calculates annual waste arisings from Worcestershire and presents this for the most recent five years. Data for the most recent year is used to calculate whether equivalent self-sufficiency has been achieved, however analysing multiple years provides a more reliable picture of waste trends over time, helping to account for fluctuations and inform forecasts of future waste arisings. The results of this analysis are presented in **Part A3**.

A2.107 Arisings are calculated using the WDI 'waste received' dataset. The data is filtered to only include wastes originating in Worcestershire (managed anywhere in England). The WDI provides data by EWC code, enabling analysis by both waste source and waste composition categories.[65] For C&I and CDE&M waste and WfWM, the relevant EWC codes are selected and the resulting dataset presents arisings for each waste source category, further broken down by waste composition category (e.g. general waste from C&I sources, green waste from C&I sources, end-of-life vehicles from C&I sources, and hazardous waste from C&I sources).

Municipal waste from households versus from other sources

A2.108 Additional steps are taken to refine the analysis of municipal waste, allowing it to be further split into municipal waste from households and municipal waste from other sources. Once total municipal waste arisings have been identified using the WDI (as set out above), the WNA then uses additional data provided by WasteDataFlow Qu100 to identify the 'municipal waste from households' using the following steps:

- Data for the relevant calendar year is selected.
- The WasteDataFlow Qu100 data is aligned with the WDI descriptions of waste[66] and six categories of waste that fall within Qu100 but are not in WNA definition of municipal waste[67] are removed from the WasteDataFlow dataset
- Duplicate entry relating to the wastes "final destination" removed from the WasteDataFlow data[68].
- The resulting figure is used as the estimate for municipal waste from households.

[65] Appendix 2 lists EWC code by waste source category and waste composition category.

[66] WasteDataFlow does not record waste by EWC code and instead utilises a coding system based on the Environmental Protection Act 1990. In consultation with Worcestershire County Council's Municipal Waste Management team and their contractor, WCC Waste Planning officers cross-referenced the types of waste recorded and matched them to the relevant EWC code, so that cross-comparison with WDI data could be made. See **Appendix 3**.

[67] Bicycles (EWC 16 01 16), Gas bottles (EWC 16 05 04), Mixed Tyres (EWC 16 01 03), Plasterboard (EWC 17 08 02), Incinerator Bottom Ash (EWC 19 01 12), Metals from Incinerator Bottom Ash (EWC 19 01 12).

[68] The Qu100 includes duplicate entries for where waste is processed and where it goes as its "final destination". To make use of the WasteDataFlow data whilst avoiding double counting of waste, the duplicate entry relating to the wastes "final destination" is removed.

A2.109 To calculate municipal waste from other sources, 'Municipal waste from households' is then subtracted from the WDI's wider municipal waste figure[69]to estimate the amount of municipal waste from other sources.

A2.110 This split allows different growth factors to be applied when forecasting future arisings. However, several limitations are acknowledged:

- WasteDataFlow Qu100 includes Local Authority Collected Waste, which may contain small amounts of non-household waste (e.g. from businesses or street bins). In Worcestershire, this is minimal and not expected to significantly affect totals.
- The WDI data includes septic tank sludge and waste from sewage cleaning, which may originate from households but are not captured in WasteDataFlow. These are therefore included in the estimate for municipal waste from other sources. This accounts for only 4% of the total municipal waste stream in 2023 and therefore is not considered to be a significant issue.
- Waste is often handled at multiple facilities, leading to double-counting. While this is removed from the WasteDataFlow data used to estimate household waste, it cannot be removed from the WDI. The estimate for municipal waste from other sources will therefore include double-counted waste from other sources (this is also true for C&I and CDE&M waste and WfWM) and double-counted waste that has not been removed from the data set when municipal waste from households was subtracted. It is not possible to identify the scale of this issue.

A2.111 National Planning Policy Guidance for Waste[70] recommends considering municipal waste arisings from civic amenity sites separately to better attribute growth factors in forecasting. In Worcestershire, nearly all of the waste received at Civic Amenity sites is from households. Where this waste is within EWC Chapter 20 it is classified as municipal waste. Waste recorded under other codes is attributed according to the methodology outlined in **Appendix 2: Waste streams by EWC code**.

Fates of waste arisings

A2.112 The WNA identifies the fate of waste arising based on the 'facility type' of the receiving waste management facility as recorded in the WDI, and applies the waste management categories set out in **Appendix 4.** This approach is used rather than using the 'Fate' data recorded in the WDI, because using a consistent approach to applying waste management categories enables a direct comparison between arisings and capacity data.

A2.113 Understanding how waste arising in Worcestershire is managed provides insight into the level of the waste management hierarchy at which it is treated. However, it is important to note that this information does not always reflect the final fate of the waste. For example, waste recorded as being sent to a transfer station may subsequently undergo further treatment, which is not captured in the initial data. Additionally, waste may pass through multiple treatment stages before final recovery, and residual waste is often generated at each stage of the recycling process.

A2.114 The arisings section of the WNA uses annual data to show the proportion of waste managed at each waste management category (i.e. the fate), breaking this down by waste

[69] All municipal waste recorded as "Origin Worcestershire" that is managed anywhere in England

[70] Waste - GOV.UK Paragraph: 029 Reference ID: 28-029-20141016 Revision date: 16 10 2014

composition category. Information about the fate of waste arisings is also consider to inform forecasts of future need (see **Part B**).

A2.115 In line with national policy, the WNA must identify any waste management capacity gaps, both in total and by specific waste streams.[71] While the WNA should recognise the need for a mix of types and scale of facilities and identify the quantity of waste requiring different types of management over the plan period,[72] it should not prescribe the waste management techniques or technologies that will be used to deal with specific waste streams.[73] The assessment should consider both the need for waste management capacity as established through baseline arisings and forecasted waste needs and the availability of capacity within Worcestershire to manage an equivalent quantity of waste (equivalent self-sufficiency).

A2.116 The first step in assessing capacity is to compile a list of waste management sites in Worcestershire. These sites are then categorised by waste management category and the capacity of these sites is calculated (using the methodology outlined below) to identify the waste management capacity in Worcestershire. The capacity of the sites is expressed in terms of both the type of waste they manage (the "waste composition category") and the type of facilities they are (the "waste management category"). The analysis looks at the waste composition category, rather than the "waste source categories", because wastes in the same composition category are typically treated or disposed of in similar ways and at similar types of sites, regardless of the source of the waste arising.

A2.117 The date at which the data used in this section was accessed is recorded in **Appendix 1: Waste Data used in this WNA**.

[71] Planning Practice Guidance, 'How should waste planning authorities identify the need for new waste management facilities?' Paragraph: 022 Reference ID: 28-022-20141016 Revision date: 16 10 2014

[72] National Planning Policy for Waste: Published 16 October 2014 National planning policy for waste - GOV.UK (www.gov.uk)

[73] Planning Practice Guidance, 'Can Local Plans prescribe specific technologies?' Paragraph: 019 Reference ID: 28-019-20141016 Revision date: 16 10 2014

Methodology: Current waste management capacity

Waste management sites in Worcestershire

A2.118 A list of waste sites is provided in **Appendix 6: List of waste sites in Worcestershire for the purposes of the WNA**, and each site is shown on Worcestershire County Council's webmap[74]. The list of waste sites has two functions:

- To identify Worcestershire's waste management capacity (as detailed in the WNA), and
- To identify waste sites in Worcestershire that should be safeguarded (this is outside of the scope of the WNA).

A2.119 The list of waste sites comprises sites that are either operations with a primary purpose of waste management, or sites where waste management infrastructure forms a significant part of the operation of the site. The sites where waste management is ancillary to other uses (unless the waste use is significant, such as sites with a waste permit); sites where capacity has been lost due to change of use; or landfill sites where infilling has been completed. It may include waste sites that are not currently active, as the lawful use of the site for waste operations remains with the land. It is based on the best available data at the time of publication but may not be exhaustive.[75]

How waste sites have been identified.

A2.120 The majority of waste sites in Worcestershire operate under a specific planning permission for waste management use, typically issued by Worcestershire County Council. But a significant minority of sites operate under a general industrial permission issued by a city, borough or district council. To ensure that as many known waste sites as possible were considered, all potential waste sites appearing at least once in the following datasets were first identified:

- All waste sites identified in the evidence base for the Worcestershire Waste Core Strategy (this includes evidence up to 2007).
- All waste planning permissions granted by Worcestershire County Council since 2007 (any applications up to 2007 would have been captured as part of the Waste Core Strategy evidence).
- All planning applications appearing in the online planning searches of all local planning authorities in Worcestershire that appear under a key word search[76] and which undertake waste management operations.

[74] www.worcestershire.gov.uk/wasteplanningpolicy

[75] See 'Maintenance of site list' below for details of when capacity will be considered 'lost' and removed from the list.

[76] Key words: 'waste', 'scrap', 'composting', 'recycling', 'reprocessing', 'disposal' or 'recovery'.

- All waste sites identified in the Waste Data Interrogators (WDI) at least once during the period 2016-2024.
- All sites on the Environment Agency's Register of Waste Operations permits: June 2025.
- All waste sites on the Environment Agency Register of Installations permits: June 2025.
- All sites on the Environment Agency Register of Authorised Treatment Facilities (ATF) for End of Life Vehicles (ELV): June 2025.
- All sites on the Environment Agency Register of Scrap Metal Dealers:[77] June 2025.

A2.121 This process generated a 'long-list' of 141 potential sites to consider.

A2.122 Any sites where waste management is ancillary to other uses (unless the waste use is significant, such as sites with a waste permit) were removed from the list. Sites with former waste use that has been permanently lost (see below) were also removed from the list (see **Appendix 7: Sites not included in the list of waste sites**).

A2.123 Each of the remaining sites was then assessed to identify whether it had either known or assumed lawful planning use for waste management. Where a site met either of the following criteria and there was no evidence to indicate that the planning use had been lost due to subsequent development, it was included in the baseline waste sites list:

- **An express planning permission or certificate of lawful use for the waste operation.** A planning permission may be a specific waste management permission, or a permission for industrial use that would authorise the waste use being undertaken (typically a blanket permission for B1/B2/B8 uses covering an entire industrial estate in which the waste use takes place).

  or

- **The site has assumed lawful use, with sufficient evidence to demonstrate that, on the balance of probability, the use is likely to be immune from planning enforcement**.[78] This typically means there is evidence that the waste use has taken place for a continuous ten-year period without any planning enforcement action.[79] To identify whether a site has ten years of continuous use, consideration is given to historic records of returns made to the Environment Agency (for sites operating under

[77] Scrap Metal Dealers

[78] This does not confer or imply any lawful planning use; it is simply a high-level initial assessment for strategic planning purposes. These judgements are without prejudice to any planning application or application for a lawful use certificate. The actual lawfulness of any site on the list without express consent would need to be examined through such applications. The high-level conclusions do not replace the need for a detailed expediency report into the need for planning enforcement, should this need arise. Such reports could reach different conclusions to those used to inform the waste sites list.

[79] Section 191 of the Town and Country Planning Act 1990 and *Impey v SSE & Lake District SPB [1984] JPL 697*

permits)[80] and/or analysis of historic aerial and satellite photography[81]. Planning applications and appeal decisions for other developments that reference the waste use on the site have been taken into account and where necessary, additional publicly available evidence from Companies House records and internet searches has been considered.

A2.124 The process set out above identified 103 sites in Worcestershire that satisfied the planning tests for all or part of the baseline monitoring year (2023). Any evidence of changes to the list (such as a new waste planning permissions being granted, or knowledge that a waste site has permanently closed) will be used to review the list as part of the periodic review of the Waste Needs Assessment as detailed below.

A2.125 All of the potential waste sites assessed under this methodology are listed in **Appendix 6: List of waste sites in Worcestershire for the purposes of the WNA** or **Appendix 7: Sites not included in the list of waste sites**, together with summary reasons as to why each site was or was not included on the final waste sites list.

Maintenance of the waste sites list

A2.126 The waste sites list and webmap will be updated each time the WNA is reviewed. The list includes all sites that had potential capacity at any point during the monitoring year (based on calendar years). This means that if a site's capacity is lost part-way through a year, that site will still be included in the data for that year, but will be removed in subsequent years; where new sites are permitted or come to light during the monitoring year they will be added to the list for that year.

New sites

A2.127 New sites will be added to the waste sites list where:

- Worcestershire County Council or a local planning authority in Worcestershire grants planning permission for a new waste use during the monitoring year.[82] Where planning permission results in changes to an existing waste site boundary, or changes to the nature or capacity of waste management at an existing waste site, this will also be recorded at the first WNA review following the grant of permission.
- A site appears on the WDI for the first time and meets the planning tests set out in paragraphs **A2.123** above. This will capture any WDI sites that were operational during the calendar year.
- A site appears on the Register of Waste Operations Permits, Register of Installations Permits (for waste operations), Register of Authorised Treatment Facilities (ATF) for End of Life Vehicles (ELV) or Register of Scrap Metal Dealers for the first time and

[80] If a site requires an Environment Agency permit to operate, the throughput of that site is recorded (in arrears) on an annual 'Waste Data Interrogator'. A site's presence on the interrogator is therefore evidence of its operation. Interrogator records covering more than ten years are available.

[81] Google Earth imagery is available for certain years, with clear resolution images beginning in 1999. Google Streetview imagery is available at sporadic intervals from 2009 onwards. Some areas have more historic coverage than others.

[82] Where the determining authority isn't Worcestershire County Council as the waste planning authority, this will be based on key words 'waste', 'scrap', 'composting', 'recycling', 'reprocessing', 'disposal' or 'recovery' and officer judgment of whether the permission is for (or includes a significant element of) waste management operations.

meets the planning tests set out in paragraphs **A2.123** above. This data will be reviewed for changes at the end of each calendar year.

Sites with unimplemented planning permission and temporary permission

A2.128 Sites are included in the waste sites list once planning permission has been granted. Where planning permission is not implemented within the required period (usually three years), the site will no longer be included on the sites list and will be removed at the first review opportunity following the expiry of the implementation period. The same approach is taken for waste management operations with temporary permissions limited by condition.

Sites with valid and implemented planning permission

A2.129 Sites with valid and implemented planning permission will not be routinely re-assessed through the WNA to identify if their capacity remains or has been lost. Instead, it is assumed that a site's waste management capacity will continue to exist unless one the following criteria are met, triggering further investigation:

- A site previously recorded in the WDI no longer appears in a subsequent WDI.
- A site previously recorded in the Register of Waste Operations permits, Register of Installations permits (for waste operations), Register of Authorised Treatment Facilities (ATF) for End of Life Vehicles (ELV) or Register of Scrap Metal Dealers no longer appears.[83]
- Worcestershire County Council's planning team is consulted on a planning application on, adjacent to, or within 250m of the site on waste safeguarding grounds.

A2.130 Following investigation, a site will only be removed from the waste sites list if one of the following criteria are met, indicating that capacity has been permanently lost[84]:

a) The site had planning permission or a Certificate of Lawfulness of Existing Use or Development for a waste use, but a subsequent planning permission on the land or demolition or destruction of a building meant that there is no longer any waste use that could be lawfully restarted without a fresh permission;

b) The waste site operated under a blanket permission or Certificate of Lawfulness of Existing Use or Development that authorised B2 and/or B8 uses, but the waste operation has ceased; or

c) Waste use on the site had become lawful through the passage of time (10 years immunity), but the operation closed and a subsequent planning permission on the land means there is no longer any waste use that could be lawfully restarted without a fresh permission.[85]

d) A landfill site has ceased operation and has entered restoration and/or aftercare.

A2.131 This means that the list may include waste sites that are not currently active.

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[83] This data will be reviewed for changes at the end of each calendar year.

[84] Where either (i) a new planning permission is inconsistent with continuation of the waste use, or (ii) redevelopment or another material change means the waste use could not lawfully be restarted.

[85] The abandonment tests set out in case law have not informed any site's inclusion on the baseline waste sites list and will not form part of the update process. Such an assessment would only be considered if/when triggered by a planning application or enforcement investigation.

A2.132 Unless there is clear evidence that the waste use has been permanently lost, sites will remain on the waste sites list where investigations indicate that a previously active operation on land with planning permission or lawful use rights for waste use has ceased but could lawfully resume without the need for a new planning permission. This includes cases where the Environmental Permit under which the site previously operated is surrendered, revoked, or replaced with a consolidated permit. Environmental Permits are issued to specific operators, whereas planning permission runs with the land. The absence of a current permit therefore does not preclude the site from returning to lawful waste use under a new permit or operator. It is acknowledged that this approach may carry a risk of over-estimating capacity.

Assigning the waste management category

A2.133 Where a site appears in the WDI, the 'facility type' assigned in the WDI is used to assign the WNA waste management category. The WNA waste management categories group together several WDI facility types within each waste management category (see **Appendix 4: Waste management categories**). For sites not listed in the WDI, the waste management category is assigned based on information in the planning permission or planning application documents, inclusion on the Authorised Treatment Facility (ATF) or End-of-Life Vehicle (ELV) registers, or from officer knowledge of the site. The waste sites list in **Appendix 6** and **Appendix 7** indicates whether each site is included in the WDI or not.

A2.134 In some cases, the WDI records facilities as "transfer/treatment". For the purposes of the WNA, these sites are categorised as treatment and recycling facilities. This is because it is not practical to disaggregate the capacity used for transfer versus treatment. While this may slightly overestimate treatment capacity, it is considered a proportionate approach based on officer knowledge of local operations.

A2.135 Additional information is used where necessary to identify whether thermal treatment facilities are 'other recovery' or disposal. In the UK, incineration is classified as a recovery operation where it achieves "R" (Recovery) status under Environment Agency requirements. Where incinerating waste includes only limited energy recovery, it is a disposal activity. The WDI data is not always up to date in this regard, so additional evidence has been taken into account to establish whether facilities have achieved 'R' status. This includes data from the Incinerator Annual Monitoring Reporting[86], and evidence provided to WCC by operators. Where the energy efficiency factor of the incinerator meets or exceeds the minimum value to achieve "R" status, it is considered to be an 'other recovery' operation in the WNA. Where this threshold is not met, or where no evidence of 'R' status is available, the facility is classified as disposal for the WNA.

A2.136 Where a site operates under more than one environmental permit/waste management licence and the WDI includes separate data for each activity, the site is included multiple times in the waste sites lists and map (with the WCC Site ID given a letter suffix, e.g. Redditch Skip Hire appears as WWS015A and WWS015B) with each entry allocated to the correct waste management category. It is also known that one landfill site in Worcestershire (Hill and Moor, Wyre Piddle (WWS058)) undertakes several different operations under the same Environmental Permit (landfill, composting, and processing of Incinerator Bottom Ash (IBA) for secondary aggregate). For this site it is possible to separate the data for these operations and to repeat this consistently for annual data updates. The following actions are taken for this site:

[86] Incinerator Annual Monitoring Reporting - data.gov.uk

- The data for the household waste site is shown separately in the WDI as this is reported under a different Environmental Permit number,
- All waste with the relevant EWC code for Incinerator Bottom Ash[87] is assigned to the treatment and recycling waste management category rather than being assigned to the landfill waste management category, as it is clear from discussions with WCC officers involved in managing the waste disposal contract that, whilst IBA is processed on the site, none of it is landfilled,
- All green garden waste recorded in WasteDataFlow as being collected in Worcestershire and composted at Hill and Moor is assigned to the treatment and recycling waste management category rather than being assigned to the landfill waste management category, as the composting operation primarily manages local authority collected waste from Worcestershire and this accounts for approximately 95% of the green waste, food waste and sludges received by Hill and Moor, as reported in the WDI, and
- All remaining waste received at Hill and Moor and recorded in the WDI under the landfill permit is assigned to the landfill waste management category.

A2.137 Another site (Summerway Landfill WWS048) has a permit for both treatment and landfill, but officer knowledge and EA void space data indicate that there is very limited landfilling on site annually. The WDI data is therefore assigned to treatment and recycling capacity.

Calculating capacity

Calculating recurrent waste management capacity

A2.138 Most waste management capacity can be referred to as 'recurrent capacity' meaning operations can be maintained on an ongoing, annual basis. This contrasts with non-recurrent capacity, such as landfill, where available void space is gradually depleted over time. The following approach is used to calculate recurrent capacity for treatment and recycling facilities, transfer, energy from waste, incineration and combustion. This methodology is not used for landfill, or deposit of waste to land.

Step 1: 5-year peak

A2.139 For each facility[88], the WNA calculates capacity using the highest annual tonnage of waste received over the past five years as recorded in the WDI. This is referred to in the WNA as the "WDI 5-year peak" and provides a figure used for the total capacity for each site.

A2.140 As explained above, capacity data will include any site that has data in the WDI in any year in the last 5 years unless there is clear evidence that the waste use has been permanently lost. Capacity data will not included for any site that does not appear in the WDI at least once in the last 5 years.

Step 2: Capacity by waste composition category

A2.141 The WNA analyses the total waste manged at each individual site over the same five-year period to calculate the percentage share of each waste composition category. These percentages are used as a proxy to estimate how much capacity there is at the site for each

[87] 19 01 12

[88] Or for each WCC Site ID with a lettered suffix where a facility is split into more than one part.

waste composition category by applying these percentages to the site's five-year peak throughput to give a calculated capacity for each waste composition category.

A2.142 As an example, if a site had a peak throughput of 150,000tpa over the previous five years and, over the same time period, 63% of the waste managed was general waste, 14% was hazardous waste and 23% was inert waste, then the capacity for that site would be reported as having a calculated capacity of 94,500 tpa general waste, 21,000 tpa hazardous waste and 34,500 tpa inert waste.

A2.143 This approach ensures that the calculated capacity for each waste composition category at a site always equals the site's five-year peak throughput. This avoids the risk of overestimating total capacity, which could occur if peak values for each composition category were considered separately rather than proportionally.

Step 3: Calculated capacity is calculated by waste composition category and waste management category

A2.144 The capacity calculated for each waste composition category in Step 2 is then aggregated by waste management category. This produces a matrix of outputs that can be used to identify Worcestershire's current capacity for each type of waste at each level of the waste management hierarchy.

Benefits and limitations

A2.145 While the methodology for identifying total site capacity using the 5-year peak is well-established and commonly used in WNAs prepared by other waste planning authorities, the approach to estimating capacity by waste composition category is more novel. This approach is used due to the stronger relationship between waste composition and the types of facilities at which waste is managed rather than between the waste source and type of facility. This approach also aligns with the way arisings are assessed, using waste composition and fate, thereby supporting a consistent methodology and comparable data for identifying whether equivalent self-sufficiency is achieved in the baseline year and whether additional capacity will be required to meet forecasted needs.

A2.146 This approach will also enable any capacity gaps and the achievement of equivalent self-sufficiency to be monitored over time. It may make comparisons to WNAs prepared by other WPAs more difficult, however, there is currently no single established approach for WNAs nationally.

A2.147 The risk of overestimating capacity when considering individual waste composition categories has been mitigated by ensuring that the sum of calculated capacities for each composition category at a site does not exceed the site's five-year peak throughput.

Calculating landfill capacity

A2.148 Unlike other types of waste management capacity, which have a recurrent annual capacity, landfill capacity is finite. As such, the WNA uses two measures when assessing landfill capacity:

- The **annual operational capacity**, which reflects how much waste the site is likely to be able to handle each year based on recent working practices, and
- The **remaining void space**, which reflects the total remaining capacity available for future use.

Annual operational capacity

A2.149 Annual operational capacity is identified using the same methodology as used to calculate recurrent waste management capacity, considering the 5-year peak in waste received and presenting the calculated annual operational capacity by waste composition category (see **Calculating recurrent waste management capacity** above for details).

A2.150 This enables comparison with other waste management categories and supports analysis of how landfill fits within the broader waste management hierarchy.

Remaining void space

A2.151 The Environment Agency provides data on the estimated remaining void space at individual landfill sites, measured in cubic metres, and categorises each site as one of the following:

- Inert landfill
- Non-hazardous landfill
- Non-hazardous landfill with stable non-reactive hazardous waste (SNRHW) cell
- Hazardous landfill

A2.152 Due to regulatory restrictions on the types of waste permitted at each category of landfill, the Waste Needs Assessment (WNA) considers the capacities of non-hazardous landfill, non-hazardous landfill with SNRHW cells , and inert landfill separately. However, it should be noted that where a single landfill site contains multiple types of landfill capacity (e.g. both non-hazardous and SNRHW cells), the dataset does not disaggregate the void space by type. Instead, it presents a single combined figure for the site as a whole.

A2.153 Where a planning permission that includes landfill has an end date, this is noted in the sites list in **Appendix 6: List of waste sites in Worcestershire for the purposes of the WNA** and taken into account as appropriate.

Conversion factors

A2.154 Because waste arisings are recorded by weights (tonnes) not volume (cubic metres), it is necessary to convert the EA void space data, which is provided in cubic metres, into tonnes for the purposes of the WNA.

A2.155 The following conversion factors are used:

- Inert landfill sites: It is assumed that 1.5 tonnes of inert waste occupy one cubic meter of void space.[89] As inert landfill sites can only accept inert wastes, a conversion factor of 1.5t/m^3 is applied to the void space capacity at these sites.
- Non-hazardous landfill : It is assumed that 1.159 tonnes of waste occupy one cubic meter of void space.[90] Although the non-hazardous landfill sites currently in Worcestershire can also accept denser inert waste, the majority of waste disposed of at non-hazardous landfill sites is non-hazardous waste. A conversion factor of 1.159t/m^3 is therefore applied to the void space capacity at these sites.

[89] Based on Excise Notice LFT1 — a general guide to Landfill Tax - GOV.UK

[90] This is the conversion factor used for non-hazardous waste in Residual waste infrastructure capacity note - GOV.UK.

- ‘Non-hazardous landfill with stable non-reactive hazardous waste cell’: The type of waste received at these sites is taken into account:
    - Where the waste is predominantly inert or hazardous waste with similar characteristics to inert waste, a conversion factor of 1.5 t/m³ is applied. This applies to Hartlebury Landfill Site, which primarily manages inert waste and includes an SNRHW cell for asbestos and similar hazardous materials.
    - If the landfill site were to receive predominantly general waste, green waste, food and sludges or hazardous more akin to these types of waste, a conversion factor of 1.159t/m³ would be applied. At the time of preparing the baseline Waste Needs Assessment,[91] there were no landfill sites operating in this manner in Worcestershire, but this will be applied in future iterations of the WNA if any such sites should be developed.
- Hazardous landfill: At the time of preparing the baseline Waste Needs Assessment,[92] there were no hazardous landfill sites operating in Worcestershire. If such sites were to be developed in the future, the type of waste received would be considered in line with the approach used for SNRHW cells.

A2.156 These conversion factors may need to be kept under review in future iterations of the WNA, as the composition of waste evolves. For example, a historical conversion factor of 0.85 t/m³ was previously applied to non-hazardous waste. The updated factor of 1.159 t/m³, used by Defra in the 2024 Residual Waste Infrastructure Capacity Note[93] reflects changes in the composition of waste sent to landfill. Very little 'black bag' waste is now disposed of directly to landfill; most, if not all, undergoes some form of pre-treatment (as required by the Landfill Directive), resulting in a significantly higher density than untreated mixed municipal waste.

Void space not included in the data

A2.157 The EA data on remaining void space only reports on landfill void space that is ‘ready for use’. In some cases, landfill sites may have planning permission for more capacity than is shown in the “Remaining Landfill Capacity” dataset, as some cells may not yet be engineered or the void space has not yet been created through prior mineral extraction. Once those cells are fully prepared, the additional capacity will be reflected in the dataset.

A2.158 Where new landfill capacity has been permitted but is not yet operational and therefore does not appear of the EA landfill void space data set, it is presented separately in the WNA. However, once a site has become operational and is included in the EA data on remaining void space this data will be used instead. This approach applies to both mineral sites restored through infilling and standalone landfill permissions. This may risk some underestimation of permitted landfill capacity if not all of a site’s permitted capacity is ‘ready for use’ at one time, but there is no reliable data currently available to enable capacity at operational sites but which is not yet ‘ready for use’ to be estimated and reported in the WNA.

[91] As of 2025.

[92] As of 2025.

[93] This is the conversion factor used for non-hazardous waste in Residual waste infrastructure capacity note - GOV.UK.

Calculating recovery of waste to land capacity

A2.159 'Other recovery' includes deposit of waste to land where this is identified in the WDI as 'Deposit of waste to land (recovery)'. Like landfill capacity, this capacity is finite. However, unlike landfill capacity, the total remaining capacity is not monitored or reported in EA data. Therefore, annual operational capacity is identified using the same methodology as used to calculate recurrent waste management capacity: by considering the 5-year peak in waste received and presenting the resulting calculated annual operational capacity by waste composition category.

Methodology: Identifying whether equivalent self-sufficiency has been achieved

A2.160 The WNA identifies whether equivalent self-sufficiency has been achieved in the relevant monitoring year, both in total and by waste composition category and waste management type. This is identified by subtracting the actual amount of waste arising in Worcestershire[94] from the calculated capacity for managing waste in Worcestershire[95]. If the amount of capacity is equal to or above the amount of arisings, this means that equivalent self-sufficiency has been achieved. If equivalent self-sufficiency is not achieved, this is referred to as a 'capacity gap'.

A2.161 The baseline year for identifying equivalent self-sufficiency is 2023, as this was the most recent year for which all relevant datasets were available at the time of writing. The results set out in **section A3** represent a snapshot in time, providing the baseline in relation to equivalent self-sufficiency which is intended to enable:

- forecasting the need for future waste management capacity; and
- monitoring progress towards equivalent self-sufficiency where there are current or forecast gaps in capacity.

A2.162 The WNA does not focus on specific waste management techniques or technologies that should be used to deal with specific waste streams,[96] but takes account of whether equivalent self-sufficiency has been achieved at different levels of the waste management hierarchy. The identification of any capacity gaps will inform plan preparation, strategic discussions with other WPAs, and subsequently monitoring the delivery of waste management capacity.

Calculating equivalent self-sufficiency

A2.163 To enable a clear and transparent approach to calculating self-sufficiency, the following tabulation is used in **section B** to present the high-level results in each of the following sections:

- baseline arisings,
- baseline capacity, and
- equivalent self-sufficiency baseline.

[94] The methodology for calculating the waste arisings is set out in **Methodology: Current arisings** above.

[95] Based on the highest annual tonnage of waste received over a five-year period (known in the WNA as the "5-year peak") at facilities operating in the monitoring year. The methodology for calculating the 5-year peak is set out in **Methodology: Current arisings** above.

[96] Planning Practice Guidance, 'Can Local Plans prescribe specific technologies?' Paragraph: 019 Reference ID: 28-019-20141016 Revision date: 16 10 2014

A2.164 The same breakdown of data will also be used to identify different potential future capacity needs, taking into account forecast waste arisings.

Table A2 - 1. Template for presentation of results (Arisings, Capacity and Equivalent self-sufficiency)

	General waste	Inert waste	Green waste, food waste, and sludges	End of Life Vehicles	Hazardous waste	Total
Treatment and Recycling						
Other recovery (Energy)						
Other recovery (to land)						
Disposal: Incineration and Combustion						
Disposal: Landfill						
Other						
Transfer						
Total						

A2.165 The information in Table A2 - 1 is used to identify whether self-sufficiency has been achieved overall and whether it has been achieved for each waste management category and waste composition category. For landfill, the annual operational capacity is used to inform Table A2 - 1. Remaining landfill void space is considered separately later in this section.

A2.166 When calculating equivalent self-sufficiency, the results data set out in these tables are rounded to the nearest 100 before the totals are calculated. Where tonnages are between 50 and 0 this is rounded down and shown as ~0 to distinguish between a rounded number and a calculated 0.

Consideration of the waste management hierarchy

A2.167 Waste plans should identify sufficient opportunities to meet the identified needs of an area for the management of waste, aiming to drive waste management up the Waste Hierarchy.[97] This means giving priority to preparing waste for reuse; to recycling, and then recovery. Disposal is regarded as the worst option.[98] Waste that remains after re-use and recycling and is managed through energy recovery, incineration or landfill is referred to as 'residual waste'.[99] When referring to residual waste, The Environmental Targets (Residual Waste) (England) Regulations 2022 exclude some types of waste from this definition. However, the WNA currently considers all wastes within each composition category that are managed through energy recovery, incineration or landfill as residual waste to give headline figures about the level of the waste management hierarchy at which the waste is managed.

A2.168 The breakdown of waste management categories used in Table A2 - 1 above means it is easy to see the quantities of waste managed through 'treatment and recycling' and 'transfer'.

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[97] Waste - GOV.UK Paragraph: 011 Reference ID: 28-011-20141016. Revision date: 16 10 2014

[98] Waste Management Plan for England

[99] See The Environmental Targets (Residual Waste) (England) Regulations 2022.

Capacity for the management of residual waste, however, is split across four different waste management categories (namely 'Other recovery (Energy)', 'Other recovery (to land)', 'Disposal: Incineration and Combustion', and 'Disposal: Landfill'). This makes it harder to see, at a glance, whether self-sufficiency is being achieved for the management of residual waste. For the self-sufficiency section, results are therefore also presented using the format shown in Table A2 - 2 below, which groups together residual waste management categories.

A2.169 Presenting a single set of data for all residual waste management may also help when comparing the current baseline with national residual waste targets.

A2.170 The figures for residual waste are calculated using the data for the relevant waste management categories after they have been rounded to the nearest 100 tonnes in more detailed results tables.

Table A2 - 2. Template for presentation of headline equivalent self-sufficiency results

	General waste	Inert waste	Green waste, food waste, and sludges	End of Life Vehicles	Hazardous waste	Total
Treatment and recycling						
Residual waste management: Other recovery and disposal						
Other						
Transfer						
Total						

Transfer

A2.171 Where waste is managed at transfer facilities, it is temporarily stored, sorted or bulked and then sent for onward treatment. This means that there is a higher risk of "double-counting" waste that is received at a transfer facility and is then subsequently received at another waste management facility for onward treatment. Some waste is handled at more than one intermediate facility (transfer) potentially being counted multiple times. This is an acknowledged limitation in the data, however this is largely mitigated in the WNA as the methodology used directly compares waste arisings managed at transfer facilities with the waste capacity at those transfer facilities to calculate equivalent self-sufficiency.

Landfill void space

A2.172 Landfill void space is the amount of finite landfill capacity remaining in Worcestershire. Information on the void space in 2023 is presented in the capacity section of this WNA (**Part A3**). In addition to setting out the estimated remaining landfill capacity in tonnes, the 'Equivalent self-sufficiency' section includes an estimate of how long this void space will last, in years, based on Worcestershire's arisings with a fate of landfill remaining stable at 2023 tonnages.

A2.173 This does not take account of any forecasts set out in **section B**, or the understanding that landfills are strategic waste management facilities that often serve a wider geographical area than the waste planning authority within which they are located. It does, however, provide a

useful indicator of equivalent self-sufficiency for the purposes of identifying the baseline within the WNA.

Methodology: Strategic movements of waste

Introduction

A2.174 In line with national guidance, one of the purposes of WNAs is to understand strategic imports and exports of waste into and out of Worcestershire. [100] Some cross-boundary movements of waste are inevitable and reflect the normal working of the economy. For example, in 2023, waste management facilities in Worcestershire received waste from 119 of the 148 WPAs across the country, and waste from Worcestershire was received at waste management facilities in 91 different WPAs. One of the roles of the WNA is to identify whether the relationship between waste management facilities in Worcestershire and any other WPA area is strategic.

A2.175 Whether movements of waste are considered strategic or not will usually depend on the scale of the movements and the type of waste, and can be influenced by the degree of reliance on the waste management infrastructure involved. Where there are strategic movements of waste between Worcestershire and other WPA areas, this will inform the preparation of the Worcestershire Waste Plan. Other evidence will also be taken into account to identify facilities in Worcestershire that could play a strategic role at a wider-than-county scale, as well as whether there are any wider strategic needs which Worcestershire's Waste Plan may need to play a role in helping to address.

Data

A2.176 The WDI includes details of the geographical location from which the waste received at individual facilities originates from, showing this by region, WPA and district. This is completed by facility operators who are asked to assign the lowest geographical tier, but sometimes the lowest geographical tier provided by operators is the region. Where no geographical data is provided with the waste return from the operator, the EA estimates the location based on the region of the receiving waste site or marks the origin as "not codeable".

A2.177 The WNA uses data on the origin WPA when considering strategic movements, however 31,167 tonnes of waste received at facilities in Worcestershire in 2023 was not codeable. This was equivalent to approximately 2% of waste received in Worcestershire. For the purposes of the strategic movements section of the WNA, waste received in Worcestershire originating from Scotland, Wales and outside of the UK are considered in the same way as waste received from WPAs in England. Because the data is collected when waste is received at a facility, the same information is not available for waste originating in Worcestershire and received in Scotland, Wales or outside of the UK.

A2.178 The data used when considering strategic movements is for 2020-2024, rather than 2019-2023 as used elsewhere in the WNA baseline. This is because the WDI data can be used without the consideration of any other data, whereas the other sections rely on the use of WasteDataFlow as well which, at the time of writing, had not been published for 2024.

[100] Waste - GOV.UK (www.gov.uk) Paragraph: 022 Reference ID: 28-022-20141016. Revision date: 16 10 2014

A2.179 When considering strategic movements, 'general waste' and 'green waste, food waste, and sludges' and 'ELV waste' composition categories are considered together and are referred to as 'Non-hazardous waste'. Inert waste and hazardous waste are considered separately. This is to align more closely with regional protocols (see **Methodology: Strategic movements** below) that set out tonnages for the scale of movements of different types of waste which could be considered strategic.

Movements between Worcestershire and other areas

Overall movements

A2.180 To provide context, the overall pattern of movements of waste is considered by waste stream,[101] and the balance of imports and exports of each type of waste to and from Worcestershire is considered for the last 5 years to identify whether there is an ongoing trend.

A2.181 Next the pattern of movements between Worcestershire and other regions[102] is considered by waste stream,[103] to show origin of waste received in Worcestershire by region for the last 5 years and the destination of waste originating in Worcestershire by region for the last 5 years. This does not include waste that had both an origin and destination of Worcestershire. Presenting the data by region is useful to identify overall trends which can be hard to identify when presenting data for all 149 WPAs at the same time.

Identifying strategic movements between WPAs

A2.182 To help identify movements between individual WPAs that have the potential to be strategic, the WNA uses WDI data to calculate all movements between Worcestershire and all other WPAs in total and by waste composition category for each year over a 5-year period. The following tonnage thresholds are then applied to screen-out waste movements that are unlikely to be strategic:

- 10,000 tonnes per annum of inert waste.
- 5,000 tonnes per annum of other non-hazardous waste[104].
- 500 tonnes per annum of hazardous waste.

A2.183 The inert and non-hazardous waste thresholds are consistent with the duty to cooperate tonnage thresholds recommended by London, South East, East of England and North West Waste Technical Advisory Bodies (TABs).[105] The hazardous waste threshold is consistent with the tonnage threshold recommended by the North West Waste TAB. This is higher than the 100 tonnes threshold recommended by London, South East and East of England TABs but is

[101] In this section this is inert waste; non-hazardous waste; hazardous waste.

[102] Based on the regional groupings of the established or former waste/resource Technical Advisory Bodies.

[103] In this section this is inert waste; non-hazardous waste; hazardous waste

[104] Compromised of 'general waste', green waste, food waste, and sludges' and 'ELV waste'.

[105] TABs are non-statutory regional groups that work together to collaborate on development of local waste planning policy. Membership varies from region to region but typically comprises waste planning and management officers of the Waste Planning Authorities (WPAs), the Environment Agency, representatives of industry including the waste management industry, and representatives of environmental organisations.

still considered highly precautionary in the context of hazardous waste arising from and managed in Worcestershire.

A2.184 These thresholds are used for consistency with the approaches used elsewhere but are considered precautionary:

- 10,000 tonnes of inert waste is equivalent to approximately 3% of inert waste arising in Worcestershire in 2023;
- 5,000 tonnes of non-hazardous waste is equivalent to approximately 0.5% of non-hazardous waste arising in Worcestershire in 2023;
- 500 tonnes of hazardous waste is equivalent to approximately 1% of hazardous waste arising in Worcestershire in 2023.

A2.185 It is therefore highly unlikely that movements below these thresholds would have a strategic impact that would need to be addressed through the Waste Plan. For context, the West Midlands Duty to Cooperate Protocol suggests focusing discussion between WPAs on movements of waste that exceed 20% of waste arisings or waste managed in the origin or receiving WPA:

"Approximately half of waste movements between WPAs in the West Midlands account for less than 10% of the waste arising in that WPA and two-thirds of waste movements accounts for less than 20% of waste arising in the WPA. Movements of this scale are typical within the waste industry and are unlikely to cause a strategic issue for two or more authorities unless there are other specific factors involved…The identification of the 20% thresholds enables authorities to focus on the remaining third of waste movements patterns which are [most likely] to have a significant impact on at least two planning areas."

A2.186 The approach in the West Midlands Duty to Cooperate Protocol has not been widely adopted and the tonnage thresholds above are therefore used instead to provide easier comparison with WPAs in other regions. However, it provides a useful indication that the tonnage thresholds used in this WNA provide a very precautionary approach.

A2.187 Where movements between Worcestershire and another WPA exceed the thresholds set out above for at least one of the last five years[106], this is presented in **section A3**. This also triggers further discussion with the other WPA with a view to identifying whether there are on-going strategic issues which should be taken into account in the preparation of the Waste Plan (see **Ongoing discussions with WPAs below**).

Consideration of individual facilities

A2.188 Whether movements of waste are considered strategic or not will usually depend on the scale of the movements and the type of waste, and can be influenced by the apparent degree of reliance on the waste management infrastructure involved. In addition to identifying overall waste movements between WPAs, movements between individual facilities have been considered to help identify whether movements are likely to be of strategic importance due to reliance on any individual facilities. Where there are any planning reasons why similar movements cannot continue in the future this is also taken into account.

A2.189 First, WDI data is used to identify the following facilities:

[106] The data used for strategic movement is 2020-2024. This is different to the 2019-2023 data is used in the rest of the WNA, which cannot use 2024 data until WataDataFlow is available for 2024.

a) all facilities in Worcestershire receiving more than 10,000 tonnes of inert waste, 5,000 tonnes of non-hazardous waste, or 500 tonnes of hazardous waste from any other WPA in at least one year of the five-year period considered, and

b) all facilities in any other WPA receiving more than 10,000 tonnes of inert waste, 5,000 tonnes of non-hazardous waste or 500 tonnes of hazardous waste from Worcestershire in at least one year of the five-year period considered.

A2.190 All facilities exceeding these thresholds will be listed in **Appendix 8**.

A2.191 Once these facilities have been identified, further consideration is then given to whether the pattern of movements indicates a degree of strategic reliance on individual facilities:

- **Where a facility in another WPA** received more than 10,000 tonnes of inert waste, 5,000 tonnes of non-hazardous waste or 500 tonnes of hazardous waste annually from Worcestershire in **three or more years in the last five years**, or **a facility in Worcestershire** received more than these quantities of waste annually from an individual WPA, this is taken as an indication that there is the potential for there to be a strategic reliance on the facility. This is identified in section **A3** and will be discussed with the other WPA to identify any issues that need to be taken into account in the preparation of the Waste Plan.
- **Where annual movements** are below these thresholds or **exceeded these thresholds less frequently** than three years in the last five years, the WNA will not consider these movements to be a strategic matter for consideration in developing the Waste Plan unless the other WPA provides evidence otherwise.

A2.192 Where a facility is located in Worcestershire, additional consideration is also given to the capacity of the facility and this will inform the discussion with the other WPA. Where the highest annual amount received at the facility from the WPA is less than 10% of the 5-year peak capacity of the site, the WNA will not consider these movements to be a strategic matter for consideration in developing the Waste Plan unless the other WPA provides evidence otherwise.

A2.193 The data for strategic movements of waste received by individual sites uses the 'basic waste type' categories available in the WDI. This means there is a small variation between the WPA and individual sites datasets, but it is impractical to apply the WNA composition categories for individual sites due to the size of the data set.

Ongoing discussions with WPAs

A2.194 A letter has been sent to all WPA alongside the consultation on the baseline WNA. It sets out the thresholds used to identify whether Worcestershire County Council considers there to be any potential for strategic issues and provides an opportunity to raise any other strategic issues.

A2.195 Where movements exceed the thresholds set out above, the letter outlines the overall imports and exports identified and provides details of any individual site(s) that could be recipients of strategic waste movements, as outlined below. Data for movements between WPAs is presented using both the composition category used in the WNA and the 'basic waste type' categories available in the WDI[107]. Although the Worcestershire WNA does not

[107] Hazardous; Household/industrial/Commercial; Inert/C&D

use the 'basic waste type' categories available in the WDI[108] (because there are several anomalies in these categories which are unhelpful for our analysis),[109] most WPAs continue to use the WDI 'basic waste type' categories to inform strategic planning conversations with other WPAs. An analysis of movements based on basic waste types is therefore included in the letter for ease of reference.

A2.196 As well as setting out the data, the letter asks WPAs to confirm that they consider the data to be accurate and accept the method used as well as asking whether they consider there to be any strategic issues between themselves and Worcestershire in relation to waste planning.

A2.197 A summary of the responses received will be reported in the next WNA.

Other strategic issues

Regional co-operation

A2.198 Worcestershire County Council is a member of the West Midlands Resource Technical Advisory Body (WMRTAB). WMRTAB is a group comprising waste planning and management officers from WPAs in the West Midlands, the Environment Agency, representatives of industry including the waste management industry, and representatives of environmental organisations.

"The overarching aim of WMRTAB is to support co-operation between WPAs and others, by providing objective and authoritative technical advice concerning the sustainable management of material resources and strategic waste management data, issues, and development policies and proposals. In particular, WMRTAB will help WPAs meet their requirements under the DtC"[110]

A2.199 In 2025 WMRTAB commissioned a study into residual waste capacity in the West Midlands. The results of this study will be taken into account.

[108] Hazardous; Household/industrial/Commercial; Inert/C&D

[109] Some waste codes are seemingly assigned to incorrect basic waste types; some hazardous waste codes are grouped into the "Household/Industrial/Commercial" basic waste type in the WDI. In addition, Inert and C&D waste have been grouped together, despite approximately a third of CDE&M waste being non-inert waste and some inert waste coming from municipal sources. More detail on this can be found in paragraph A2.68.

[110] WMRTAB Terms of reference June 2021.

A3. Current arisings and capacity: Results

Introduction

A4.3 This section (**Part A3: Current arisings, capacity and strategic movements: Results) applies** the method outlined in **Part A2: Current arisings, capacity and strategic movements: Methodology** and sets out the baseline for waste arisings from Worcestershire, and waste management capacity in Worcestershire. This section uses 2023 as the baseline year, as this was the most recent year for which all relevant datasets were available at the time of writing.[111] It will be updated regularly as part of Council's ongoing plan-monitoring activities.

A4.4 Details of the publication date and version of the data sets is set out in **Appendix 1**.

A4.5 In this section, both the baseline arisings and capacity findings are presented by waste composition category and waste management category[112]. This information is then used to identify whether waste management capacity in Worcestershire is adequate to manage the scale of waste arisings from Worcestershire and therefore whether equivalent self-sufficiency was achieved in 2023.

A4.6 In addition, the arisings section also includes an overview of information about arisings by waste source category and considers trends over the last 5 years. This information will be looked at in more detail in **Part B1 Forecasting future waste arising: Policy Review and Options Appraisal.**

A4.7 Data is rounded to the nearest whole number.[113] The only exception is in the results table within the equivalent self-sufficiency section, where figures are rounded to the nearest 100 tonnes. This approach is taken because the WNA involves multiple stages of calculations, for example, baseline waste arisings data is used to forecast future need, and both arisings and capacity data are used to calculate whether equivalent self-sufficiency has been achieved. Rounding to the nearest 100 tonnes in only the final results helps avoid compounding errors that could arise from rounding at each intermediate stage. However, it should be remembered that, whilst appearing "precise" in terms of figures being given down to single unit level, the data presented in other tables is itself the result of the considerations set out in **Part A2: Current arisings, capacity and strategic movements: Methodology**, including various caveats, averages and use of proxies, and therefore no single number should be viewed as "precise" in and of itself. The data has been prepared

[111] With the exception of Strategic movements where 2024 data is also used for the reasons outlined in A2.177.

[112] See section Key Concepts for Waste Data Analysis in the WNA page 27-36 for definition of these concepts.

[113] The 'totals' in each table may include a small rounding error as they are a sum of the rounded whole numbers. Each table is internally consistent but there may be small differences when comparing results across different tables depending on the data split.

and analysed to enable understanding of waste arisings and management trends at the strategic-scale, and should be regarded in this context.

Waste arising from Worcestershire

Five-year trends in waste arising from Worcestershire

A4.8 Figure A3 - 1 and Table A3 - 1 show the total waste arisings from Worcestershire between 2019 and 2023.

Figure A3 - 1. Total waste arising from Worcestershire 2019 - 2023 (tonnes)

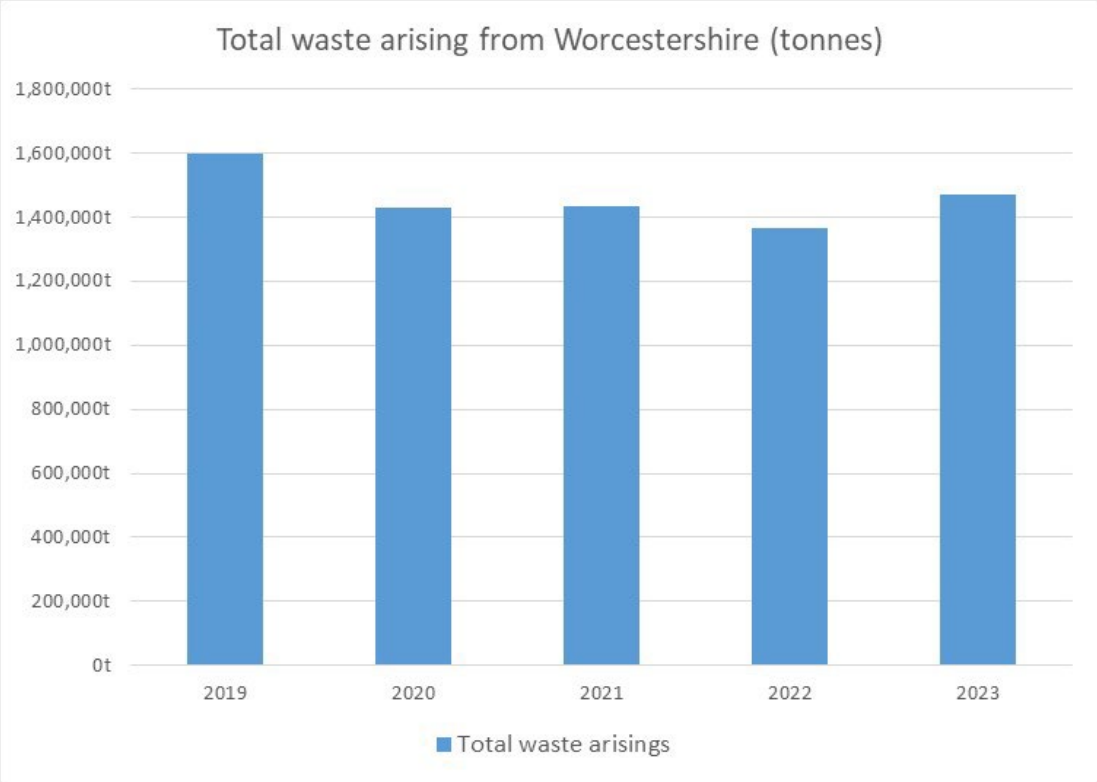

Table A3 - 1. Total waste arising from Worcestershire 2019-2023 (tonnes)

Year	2019	2020	2021	2022	2023	5-year average at 2023
Total waste arisings	1,599,875	1,429,321	1,435,705	1,367,576	1,471,512	1,460,798

A4.9 Total waste arisings were higher in 2019 than in the four years that followed. Total arisings in 2023 were higher than any year since 2019, but were preceded by the lowest arisings in 2022. It is not possible to identify any clear trends in total waste arisings over the 5-year period.

Five-year trends in waste arisings by waste source category

A4.10 Figure A3 - 2 and Table A3 - 2 show an overview of the total waste arisings from Worcestershire by waste source category. The breakdown of waste from different waste source categories by composition and fate will be considered in more detail in the **Part B: Forecasting future waste arisings**.

Figure A3 - 2. Total waste arisings in Worcestershire by waste source category 2019-2023

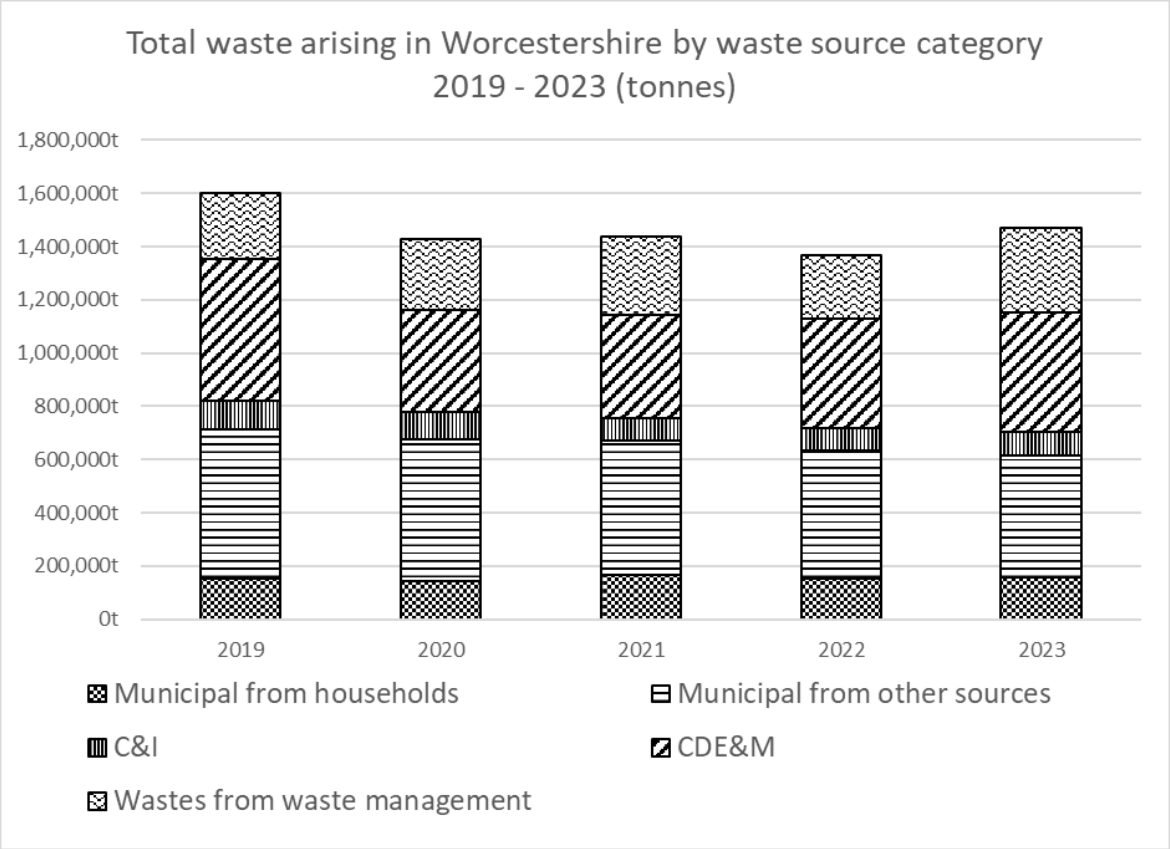

Table A3 - 2. Total waste arisings in Worcestershire by waste source category 2019-2023 (tonnes)

	2019	2020	2021	2022	2023
Commercial and industrial (C&I) waste	108,787	103,504	83,456	84,045	91,279
Construction, demolition, excavation and mineral (CDE&M) waste	529,641	384,070	385,011	411,833	448,293
Municipal from households (MfH)	150,542	142,962	166,108	154,090	157,066
Municipal from other sources (MfOS)	563,260	533,592	507,202	478,159	455,918
Wastes from waste management facilities (WfWM)	247,645	265,193	293,928	239,449	318,956
Total waste arisings	**1,599,875**	**1,429,321**	**1,435,705**	**1,367,576**	**1,471,512**

A4.11 Between 2019 and 2023, most of the waste arising in Worcestershire in each year was municipal waste (MfH and MfOS) or CDE&M waste. Municipal waste (MfH and MfOS) accounted for between 42% and 47% of waste arising from Worcestershire annually and CDE&M accounted for between 27% and 33%. The next largest contribution was from

WfWM, accounting for between 15% and 22% of waste arisings annually. C&I waste only accounted for between 6% and 7% of total waste arising from Worcestershire.

Five-year trends in waste arising from Worcestershire by waste composition category

A4.12 Figure A3 - 3 and Table A3 - 3 show the total waste arisings from Worcestershire between 2019 and 2023 by waste composition category.

Figure A3 - 3. Total waste arising in Worcestershire by waste composition category 2019-2023 (tonnes)

Table A3 - 3. Total waste arising in Worcestershire by waste composition category 2019-2023 (tonnes)

	2019	2020	2021	2022	2023
General waste	876,039	908,562	950,446	835,939	840,186
Inert waste	468,428	320,109	290,226	344,202	385,145
Green waste, food waste, and sludges	155,687	133,654	131,431	119,623	167,879
ELV waste	15,864	13,940	8,934	12,389	16,603
Hazardous waste	62,313	53,056	54,670	55,424	61,698
Total waste arisings	**1,578,331**	**1,429,321**	**1,435,707**	**1,367,577**	**1,471,511**

A4.13 Between 2019 and 2023, most of the waste arising in Worcestershire in each year was general waste. The next largest contribution was from inert waste, followed by green

waste, food waste, and sludges. Hazardous waste and ELV waste represented small proportions of the total waste arisings over this five-year period.

A4.14 Total waste arisings from Worcestershire in 2023 were 1,471,511 tonnes, this is very close to the average total annual arisings over the last 5 years of 1,460,798 tonnes. General waste arising were slightly below annual arisings over the last 5 years and all other waste streams slightly above their respective 5-year averages.

General waste arising from Worcestershire

A4.15 Between 2019 and 2023, general waste accounted for between 56% and 66% of total arisings from Worcestershire annually. There is no overall trend showing an increase or decrease in general waste arisings.

A4.16 In 2023 general waste accounted for 57% of total annual waste arisings at 840,186 tonnes. This tonnage was 5% below the 5-year average for general waste arising from Worcestershire.

Inert waste arising from Worcestershire

A4.17 Inert waste accounted for between 20% and 30% of total arisings from Worcestershire between 2019 and 2023. During this period, arisings of inert waste were highest in 2019. It is likely that the impact of covid-19 restrictions on the construction sector had an impact in 2020 and 2021. In 2023 inert waste accounted for 26% of total waste arising from Worcestershire at 385,145 tonnes. This was 7% above the 5-year average but 22% less than 2019 levels.

Green waste, food waste, and sludges arising from Worcestershire

A4.18 Green waste, food waste, and sludges accounted for between 9% and 11% of total arisings from Worcestershire between 2019 and 2023. In 2023 green waste, food waste, and sludges accounted for 11% of total waste arising from Worcestershire at 167,879 tonnes. This was 19% above the 5-year average and higher than any of the previous 4 years. The quantity of green waste, food waste, and sludges arising from the WfWM composition category showed a small upward trend between 2019 and 2022 and then more than doubled between 2022 and 2023 (108% increase).

End of Life Vehicles arising from Worcestershire

A4.19 End of life vehicles (ELVs) accounted for 1% of total waste arisings from Worcestershire between 2019 and 2023. They remained at 1% of total waste arisings in 2023, but there was variation within the ELV category itself over this period. In 2023 arisings were 16,603 tonnes, this was 23% higher than the 5-year average and the highest for the 5-year period.

Hazardous waste arising from Worcestershire

A4.20 Hazardous waste accounted for approximately 4% of total waste arisings from Worcestershire between 2019 and 2023. In 2023 hazardous waste accounted for 4% of total waste from Worcestershire at 61,698 tonnes. This was 7% higher than the 5-year average.

The fate of waste arisings from Worcestershire

A4.21 Information about the fate of waste arisings is used to identify whether equivalent self-sufficiency is achieved and to quantify any capacity gap. It should be noted that the data for fate doesn't necessarily show the "end fate" of arisings which may pass through multiple treatment facilities. In particular, it is not possible to identify how waste with a recorded fate of transfer was subsequently managed.

A4.22 Figure A3 - 4 and Table A3 - 4 show an overview of the fate of total waste arisings from Worcestershire for 2019-2023. Figure A3 - 5 and Table A3 - 5 show the fate of waste arisings from Worcestershire in 2023 by waste composition category.

Overview

A4.23 When looking at the fate of waste arising from Worcestershire, the 2019 data in relation to the split between waste with a fate of treatment and recycling and waste with a fate of transfer should be considered with some caution; in 2019 the proportion of Worcestershire's general waste arisings with a fate of treatment and recycling was 54%, with 8% with a fate of transfer. This differs from the pattern for the rest of the 5-year period in which between 38% and 44% for waste arising from Worcestershire had a fate of treatment and recycling and between 28% and 29% had a fate of transfer. It is likely that is because of improvements in the quality of the data from 2020 onwards resulted in facilities being more accurately assigned the correct treatment type in the WDI.

Figure A3 - 4. Fate of waste arising from Worcestershire 2019-2023 (tonnes)

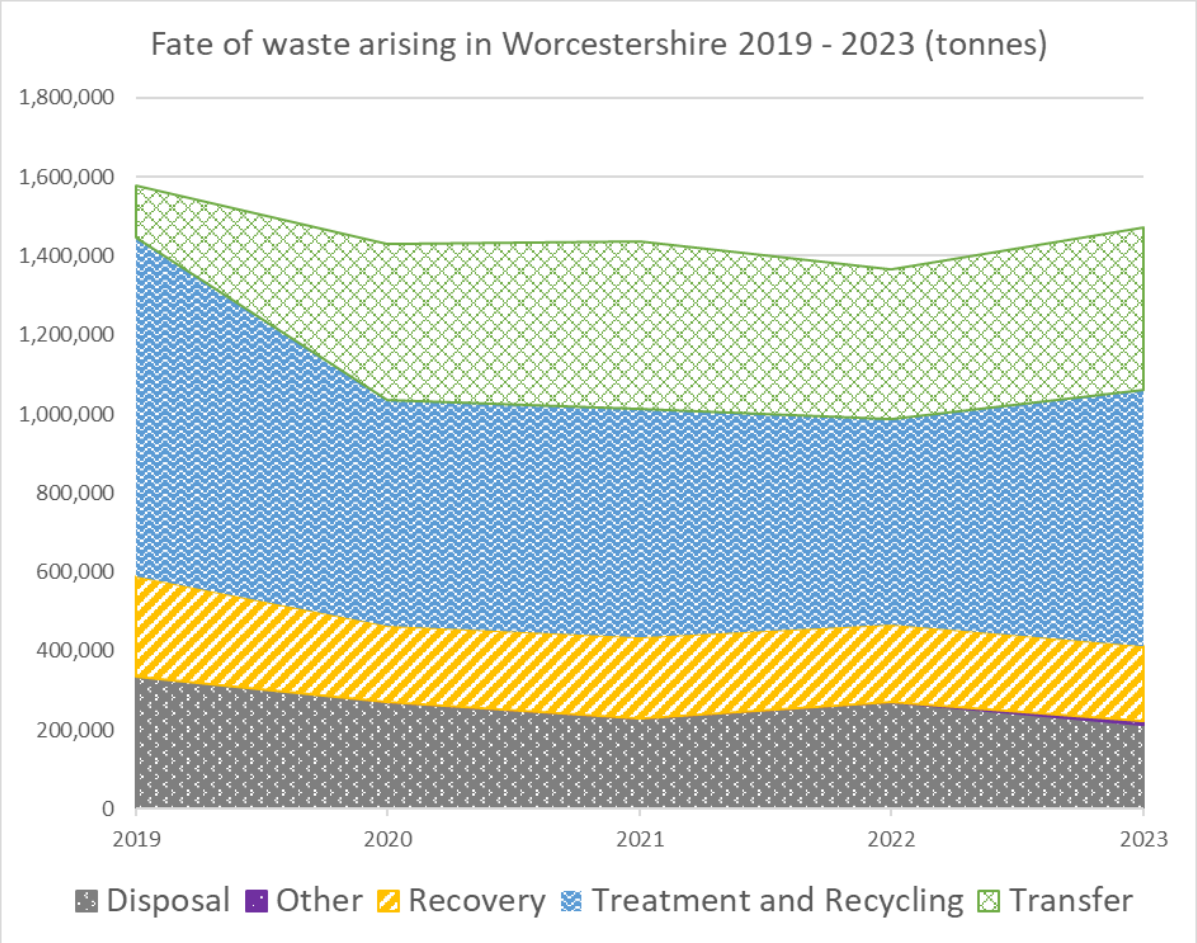

Table A3 - 4. Fate of waste arising in Worcestershire 2019-2023

	2019	2020	2021	2022	2023
Treatment and Recycling (t)	854,992	568,935	579,616	520,188	647,432
Treatment and Recycling (%)	*54%*	*40%*	*40%*	*38%*	*44%*
Other recovery (t)	255,300	194,859	204,621	195,578	191,622
Other recovery (%)	*16%*	*14%*	*14%*	*14%*	*13%*
Disposal (t)	334,968	270,185	229,648	271,301	214,186
Disposal (%)	*21%*	*19%*	*16%*	*20%*	*15%*
Other (t)	57	248	172	1,212	8,312
Other (%)	*<1%*	*<1%*	*<1%*	*<1%*	*1%*
Transfer (t)	133,013	395,095	421,649	379,299	409,958
Transfer (%)	*8%*	*28%*	*29%*	*28%*	*28%*
Total (t)	**1,578,330**	**1,429,322**	**1,435,706**	**1,367,578**	**1,471,510**

A4.24 Between 2020 and 2023 the proportion of waste arisings with a fate of transfer has remained relatively stable at between 28% and 29%, and the proportion of waste arisings with a fate of other recovery has also remained relatively stable at between 13% and 14%. The proportions of waste with a fate of 'treatment and recycling' or 'disposal' have seen greater variation, with waste with a fate of 'treatment and recycling' being between 38% and 44% and waste with a fate of disposal being between 15% and 20%.

A4.25 Less than 1% of waste arising in Worcestershire was recorded with fate of "other".

2023 Baseline

A4.26 Figure A3 - 5 and Table A3 - 5 show the fate of waste arisings by composition category in 2023. Table A3 - 5 is used to calculate whether equivalent self-sufficiency was achieved in 2023 (see **Worcestershire Baseline: Equivalent self-sufficiency** below).

Figure A3 - 5. Composition and fate of waste arising in Worcestershire 2023 (tonnes)

Table A3 - 5. Composition and fate of waste arising in Worcestershire 2023 (tonnes)

	General waste	Inert waste	Green waste, food waste and sludges	End of Life Vehicles	Hazardous waste	Total
Treatment and Recycling	271,803	201,077	115,881	16,305	42,365	**647,431**
Other recovery (Energy)	182,458	0	32	0	427	**182,917**
Other recovery (to land)	0	8,706	0	0	0	**8,706**
Disposal: Landfill	101,158	109,175	915	9	1,808	**213,065**
Disposal: Incineration and Combustion	98	0	0	0	1,022	**1,120**
Other	12	6,898	0	0	1,402	**8,312**
Transfer	284,656	59,289	51,050	289	14,674	**409,959**
Total	**840,185**	**385,145**	**167,878**	**16,603**	**61,698**	**1,471,509**

A4.27 Total waste arising from Worcestershire in 2023 was 1,471,510 tonnes. This is broadly in line with average arisings over the last 5 years.

A4.28 At 44% of all arisings, the most common fate across all waste composition categories was 'Treatment and recycling'. The highest proportion of arisings with a fate of 'Treatment and

recycling' was 'End of Life vehicles' at 98%, followed by 'green waste, food waste, and sludges' and 'hazardous waste' both at 69%, and 'inert waste' at 46%. The lowest was for 'general waste' at 34%.

A4.29 The second most common fate across all waste composition categories (at 28% of total arisings) was 'Transfer'. This was highest for 'general waste' at 33%, followed by 'green waste, food waste, and sludges' at 30%, 'hazardous waste' at 24%, and 'inert waste' at 16%. Only 2% of 'ELV waste' had a fate of transfer.

A4.30 Other recovery was the fate for 13% of all arisings. It was a significant fate for 'general waste' accounting for 21% of arisings. It only accounted for 2% of 'inert waste arisings and less than 1% for all other composition categories. More than 99% of the waste arisings with a fate of other recovery (Energy) were 'general waste', and all of the waste arisings with a fate of other recovery (to land) were inert waste.

A4.31 In relation to disposal, 14% of total waste arisings had a fate of 'Landfill', and less than 0.1% of waste arisings had a fate of incineration or combustion. Of the waste arisings with a fate of landfill, 51% was 'inert waste' although this accounted for 30% of inert arisings, and 47% was 'general waste' although this accounted for only 12% of general waste arisings. Less than 1% of waste from 'green waste, food waste, and sludges', 'End of Life Vehicles', and 'Hazardous waste' had a fate of landfill. Of the waste with fate of incineration or combustion, 91% was hazardous waste, with the remaining being 'general waste'. However, this accounts for less than 0.1% of all waste arisings.

Waste management capacity in Worcestershire

Overview

A4.32 There are 103 waste management sites in Worcestershire. All sites are included on the web map, and are listed in **Appendix 6: List of waste sites in Worcestershire for the purposes of the WNA**.

A4.33 Of the waste management sites in Worcestershire, 84 sites have an environmental permit,[114] and data is available for 73 of these in the WDI in at least one of the last 5 years and is used to identify the calculated annual capacity of waste management facilities in Worcestershire in 2023. However, the calculated annual capacity of waste management facilities in Worcestershire in 2023 cannot and does not include the capacity from:

- The 19 sites that do not have an environmental permit, or
- The 11 sites that have an environmental permit but have not been reported in the WDI in the last 5 years (including two sites that are not yet operational)

A4.34 Although this means that only 87% of sites in Worcestershire report into the WDI, and consequently the data in the capacity calculations only encompasses 87% of sites, the sites that are not captured in the WDI are mostly so small-scale[115] that they do not require an environmental permit, and will therefore have a lower capacity which should not fundamentally impact the findings of this section.

A4.35 Table A3 - 6,

A4.36 Figure A3 - 6 and Figure A3 - 7 show the calculated annual capacity of waste management facilities in Worcestershire in 2023. This data will inform the identification of whether equivalent self-sufficiency in waste management is achieved in Worcestershire (see section **Worcestershire baseline: Equivalent self-sufficiency** below).

A4.37 The figures and tables in this section use the peak figure of waste received[116] over a rolling 5-year period at individual waste management facilities in the county (referred to as the 5-year peak). In Worcestershire, most sites handle waste from several different waste sources and composition categories. It is therefore not possible to group sites into those that just manage one type of waste. Instead, the Waste Needs Assessment considers the proportion of each type of waste managed at each individual site over the last five years and applies this to the 5-year peak as a proxy to identify likely capacity for each type of waste.[117] This calculated capacity is shown by composition category and treatment type in Table A3 - 6,

A4.38 Figure A3 - 6 and Figure A3 - 7.

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[114] Extant in July 2025.

[115] With the exception of Kidderminster Sewage Treatment Works (WWS094) and Redditch Clinic Waste Incinerator (WWS020) which we have raised with the Environment Agency.

[116] Using WDI data.

[117] For more detailed explanation, see **Methodology: Current waste management capacity** above.

A4.39 Table A3 - 6,

A4.40 Figure A3 - 6 and Figure A3 - 7 also show the 5-year peak data for landfill capacity rather than the current void space recorded in the EA remaining landfill capacity data[118]. This indicates the *annual* operational capacity of these sites, based upon current working practices, and enables comparison of how capacity is spread across different levels of the waste management hierarchy. Whilst not included in Table A3 - 6,

A4.41 Figure A3 - 6 and Figure A3 - 7, landfill void space is considered in the **Landfill** section below.

Table A3 - 6. Waste management capacity in Worcestershire 2023 (tonnes)

	General waste	Inert waste	Green waste, food waste, and sludges	End of Life Vehicles	Hazardous waste	Total
Treatment and Recycling	318,645	262,434	102,092	12,401	51,651	**747,223**
Other recovery (Energy)	219,406	0	0	0	0	**219,406**
Other recovery (to land)	0	54,589	0	0	0	**54,589**
Disposal: Landfill	72,366	64,266	849	7	29,236	**166,724**
Disposal: Incineration and Combustion	55	0	0	0	340	**395**
Other	0	0	0	0	0	**0**
Transfer	309,377	160,547	52,274	124	84,053	**606,375**
Total	**919,849**	**541,836**	**155,215**	**12,532**	**165,280**	**1,794,712**

[118] Remaining Landfill Capacity - data.gov.uk

Figure A3 - 6. Waste Management Capacity in Worcestershire by treatment type: 2023 (tonnes)

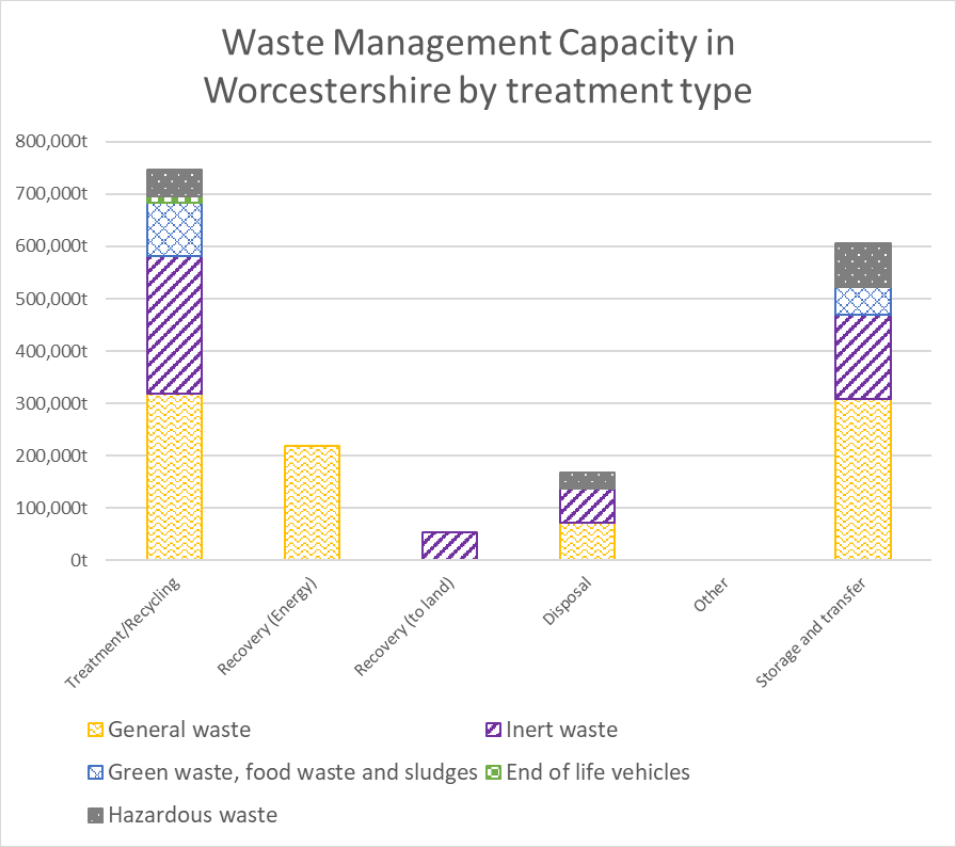
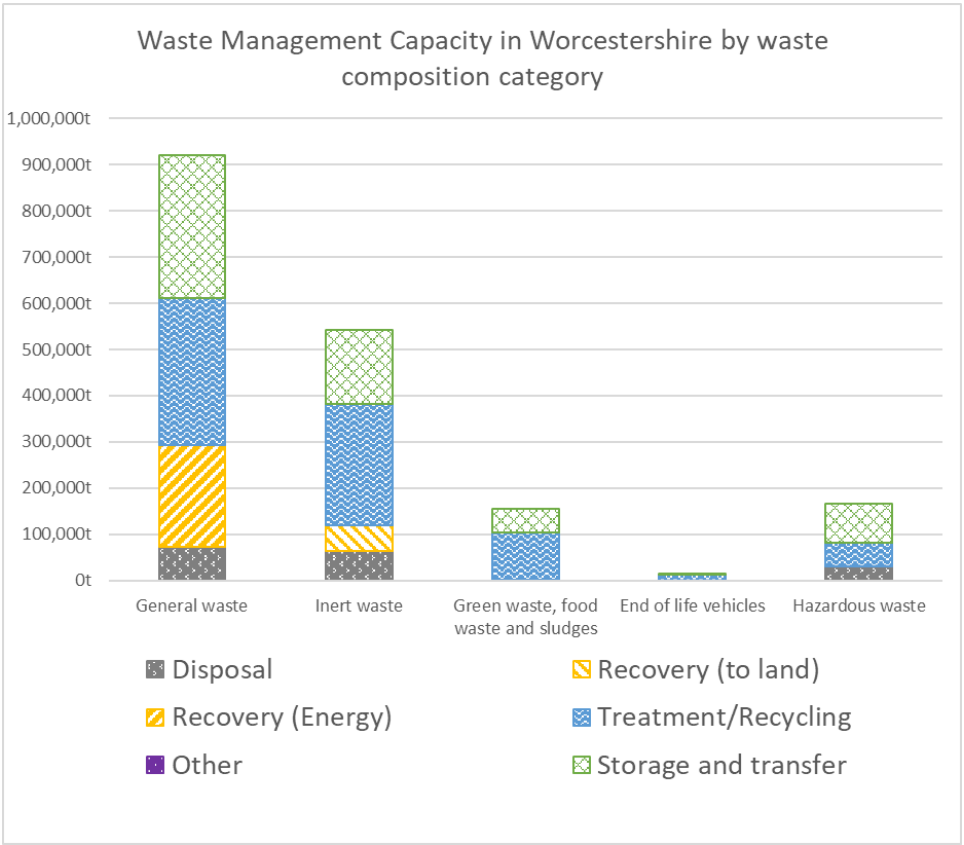


Figure A3 - 7. Waste Management Capacity in Worcestershire by waste composition category: 2023 (tonnes)



Treatment and recycling capacity

A4.42 In 2023, the calculated capacity for treatment and recycling accounted for 42% of all waste management capacity in the county. This capacity data was from 30 sites. The proportion of treatment and recycling capacity varies for each waste composition category, as follows:

- 18 treatment and recycling facilities managed general waste. These facilities provided 35% of calculated waste management capacity for general waste.
- 8 treatment and recycling facilities managed inert waste. These facilities provided 48% of calculated waste management capacity for inert waste.
- 7 treatment and recycling facilities managed green waste, food waste, and sludges. These facilities provided 66% of calculated waste management capacity for these wastes.
- 9 treatment and recycling facilities managed ELV waste. This accounted for 99% of calculated waste management capacity for ELV waste.
- 12 treatment and recycling facilities managed hazardous waste. This accounted for 31% of calculated waste management capacity for hazardous waste.

A4.43 20 additional treatment and recycling facilities are listed in **Appendix 6: List of waste sites in Worcestershire for the purposes of the WNA** and are shown on the web map[119], but did not report data into the WDI and, as such, the capacity of these sites is either not known, or cannot be quantified in the same way as for the sites appearing in the WDI.

Other recovery (Energy) and Other recovery (to land)

A4.44 In 2023, the calculated capacity for 'other recovery' accounted for 15% of all waste management capacity in the county. This capacity data was from two sites. The proportion of other recovery capacity varies for each waste composition category, as follows:

- One energy from waste facility managed general waste. This facility provided 24% of waste management capacity for general waste.
- One facility for the recovery of waste to land managed inert waste. This facility provided 10% of waste management capacity for inert waste. This was non-recurrent capacity, and the remaining capacity is not known.

Transfer

A4.45 In 2023, the calculated capacity for transfer accounted for 34% of all waste management capacity in the county. This capacity data was from 33 facilities. Several sites had capacity for more than one waste composition category. The proportion of transfer capacity varies for each waste composition category, as follows:

- 30 transfer facilities managed general waste. These facilities provided 34% of calculated waste management capacity for general waste.

[119] Available at www.worcestershire.gov.uk/wasteplanningpolicy

- 22 transfer facilities managed inert waste. These facilities provided 30% of calculated waste management capacity for inert waste.
- 23 transfer facilities managed green waste, food waste, and sludges. These facilities provided 34% of calculated waste management capacity for these types of waste.
- 9 transfer facilities managed ELV waste. These facilities provided 1% of waste management capacity for ELV waste.
- 23 transfer facilities managed hazardous waste. These facilities provided 51% of waste management capacity for hazardous waste.

A4.46 6 additional transfer facilities are listed in **Appendix 6: List of waste sites in Worcestershire for the purposes of the WNA** and are shown on the webmap[120], but did not report data into the WDI and, as such, the capacity of these sites is either not known, or cannot be quantified in the same way as for the sites appearing in the WDI.

Disposal

A4.47 Disposal includes both recurrent disposal capacity and finite landfill capacity.

A4.48 In 2023, the calculated capacity for disposal accounted for 9% of all waste management capacity in the county[121]. This capacity was from 10 facilities, six of which were landfill and four of which were combustion. Several sites had capacity for more than one waste composition category. The proportion of disposal capacity varies for each waste composition category. Disposal facilities provided:

- 8% of calculated waste management capacity for general waste.
- 12% of calculated waste management capacity for inert waste.
- 1% of calculated waste management capacity for green waste, food waste and sludges.
- Less than 1% of calculated waste management capacity for ELV waste
- 18% of calculated waste management capacity for hazardous waste.

A4.49 The types of disposal capacity are considered in more detail below.

Incineration and combustion

A4.50 In 2023, the calculated capacity for disposal at combustion/incineration facilities accounted for less than 1% of all waste management capacity in the county. This capacity data was from a single site.

A4.51 The combustion/incineration facility had a small-scale capacity of 395tpa for the management of healthcare waste (comprising of 86% hazardous waste and 14% general waste). It accounted for less than 1% of all waste management capacity in the county.

[120] Available at www.worcestershire.gov.uk/wasteplanningpolicy

[121] Using 5-year peak of waste received.

A4.52 Three additional disposal facilities are listed in **Appendix 6: List of waste sites in Worcestershire for the purposes of the WNA** and are shown on the waste web map[122], but did not report data into the WDI in 2023. As such they are not included in the calculated capacity data. These are:

- Redditch Clinical Waste Treatment Facility, Redditch (WWS020A) which has a theoretical incineration capacity of 10,000 tpa.[123] WCC contacted the Environment Agency to highlight the omission of data from this site. Data is recorded in the 2024 WDI and will be included in future WNAs that use the updated data set[124];
- Power Generation Midland Ltd, Kidderminster (WWS043). This site has planning permission and is under construction but does not yet have an Environmental Permit[125];
- Individual Pet and Equine Cremation, Stourport-on-Severn (WWS092). This site has planning permission but it not currently operating and does not have an Environmental Permit.[126]

Landfill

A4.53 Two measures of capacity are considered in identifying landfill capacity:

- The landfill void space (Figure A3 - 8 and Table A3 - 7) provides information about the finite landfill capacity remaining in Worcestershire as of 2023.
- The 5-year peak of waste received at landfill sites (see Figure A3 - 9, Figure A3 - 10, Table A3 - 8) gives an indication of the *annual* operational capacity of landfill sites based upon current working practices. and enables comparison of how capacity is spread across different levels of the waste management hierarchy.

[122] Available at www.worcestershire.gov.uk/wasteplanningpolicy

[123] Although the facility has a 4.5MWth heat export capacity, it is considered as 'disposal' capacity because there is no 'R1 value' provided for the facility in the most recent Incinerator Annual Monitoring Report (Incinerator Annual Monitoring Reporting - data.gov.uk). The R1 value is needed for the facility to be classed as a 'recovery' operation.

[124] It is not possible to use the 2024 WDI to provide the baseline data in this WNA as the other data required from WasteDateFlow will not be available until after the publication of this report.

[125] 1/10/2025

[126] 1/10/2025

Figure A3 - 8. Remaining landfill capacity (void space) in Worcestershire (tonnes)

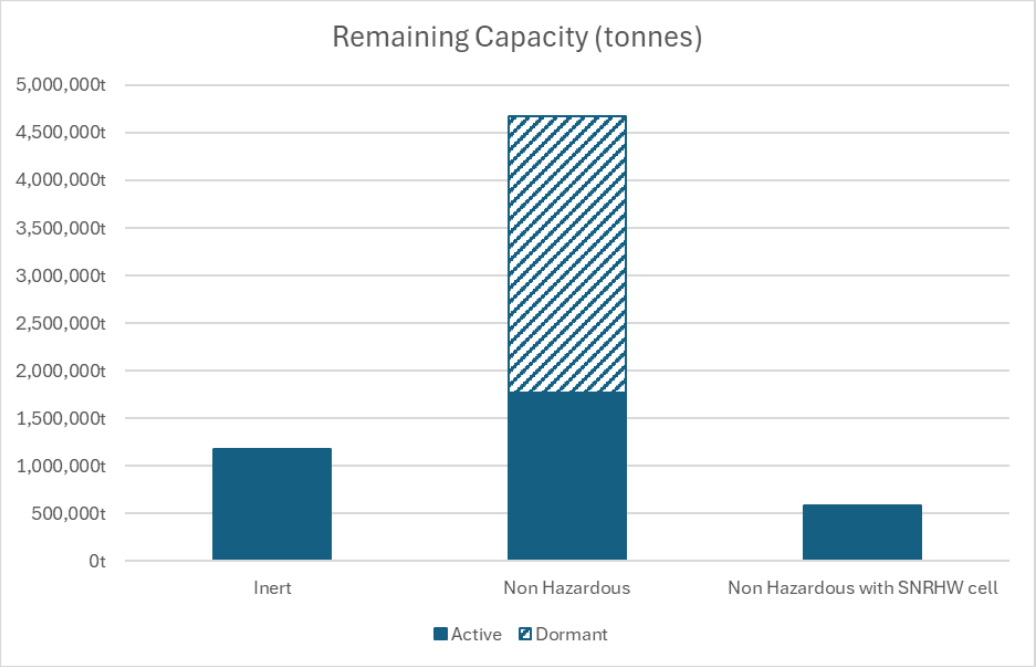


Table A3 - 7. Remaining landfill capacity (void space) in Worcestershire (cubic metres)

Type of remaining landfill capacity	Remaining Capacity end 2023 (cubic metres)	Remaining Capacity end 2023 (tonnes)
Inert	786,011	1,179,017
Non-Hazardous	4,027,490*	4,667,861*
Non-Hazardous with SNRHW cell	391,402	587,103
Total	**5,204,903**	**6,433,981**

* EA Remaining Landfill Void space data shows remaining void space at one site (Waresley landfill) as 500,000 cubic metres lower in both 2020 and 2023 than in other years since the site has been dormant. WCC has discussed this with the EA and this is believed to be an error. The data in Table 7 has therefore been "corrected" to take this into account.

Figure A3 - 9. 5-year peak input to landfill sites in Worcestershire by landfill type (2023)

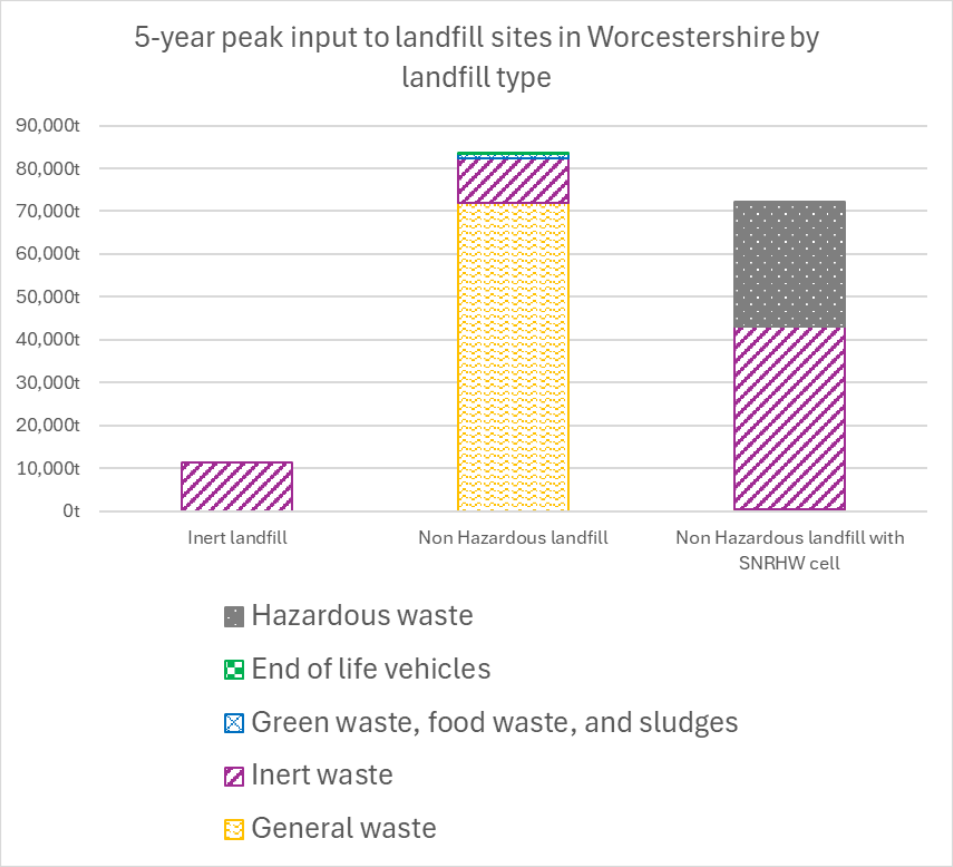


Figure A3 - 10. 5-year peak input to landfill sites in Worcestershire by waste composition category (2023)

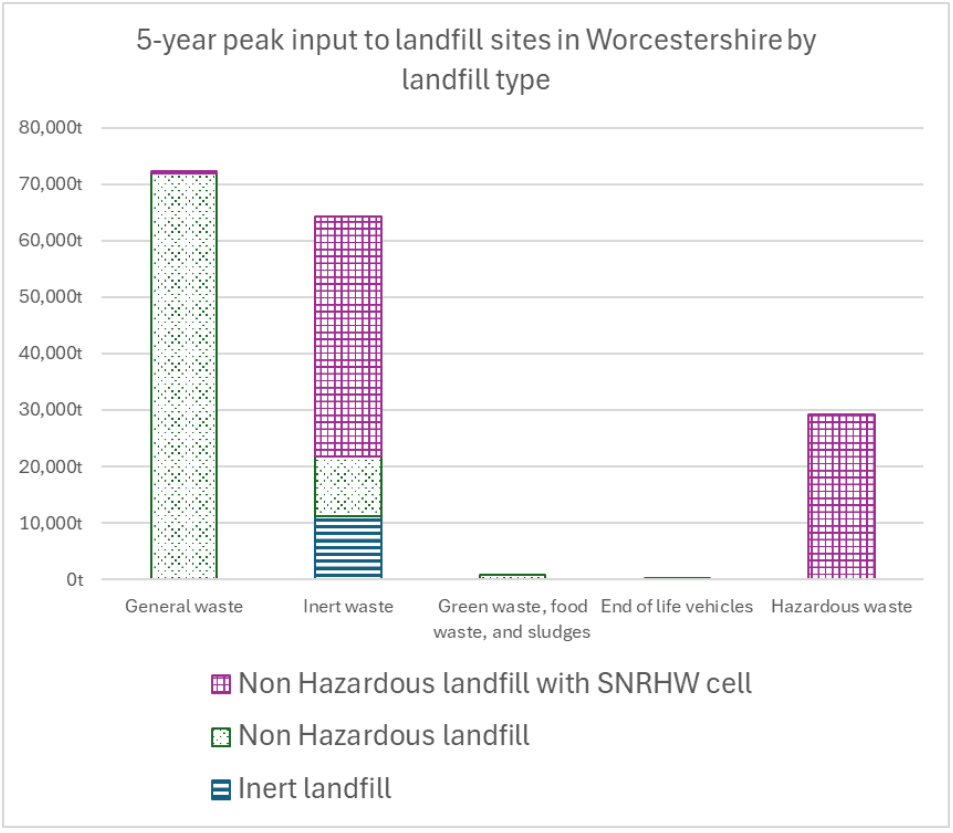


Table A3 - 8. 5-year peak input to landfill sites in Worcestershire in 2023 (tonnes)

	Non-Hazardous Landfill	Inert Landfill	Non-hazardous landfill with SNRHW Cell	Total
General waste	71,897	0	469	**72,366**
Inert waste	10,550	11,214	42,502	**64,266**
Green waste, food waste, and sludges	849	0	0	**849**
End of life vehicles	7	0	0	**7**
Hazardous waste	0	0	29,236	**29,236**
Total	**83,303**	**11,214**	**72,207**	**166,724**

A4.54 In 2023, there was a combined total of 5.2 million cubic metres of remaining landfill void space at six landfill sites in Worcestershire. This is equivalent to 6.43 million tonnes[127].

Inert landfill

A4.55 There are three inert landfill sites in Worcestershire. In 2023, they had a combined remaining landfill capacity of 1.18 million tonnes, accounting for 18% of the remaining landfill void space (in tonnes) and 7% of *annual* operational landfill capacity. These sites provided 12% of total *annual* capacity for the management of inert waste in Worcestershire. All three sites only managed inert waste.

A4.56 As of 2023, three sites had planning permission for inert landfill but were not operating as landfill sites and were not included in the EA remaining void space data. This may be due to a number of factors, including because they were either awaiting an environmental permit to be issued and were therefore not yet operational, or because they formed part of a phased restoration of a mineral working, and the development had not yet progressed to the stage where it was included in this data. These sites have a combined potential inert landfill capacity of 3.64 million tonnes; this is more than 1.7 times greater than the remaining capacity at current inert landfill sites in Worcestershire.

Non-hazardous landfill

A4.57 There are two non-hazardous waste landfill sites in Worcestershire. In 2023, they had a combined remaining landfill capacity of 4.67 million tonnes[128] accounting for 73% of remaining landfill void space capacity (in tonnes). However, one of these sites (WWS039) has been dormant for more than 10 years, pending the completion of the mineral operations on site which will release the void space for landfill. This is expected to take

[127] Using the conversion factors set out in the method chapter:

1.159t/cubic metres for non-hazardous waste landfill and Non-hazardous waste landfill with SNRHW cell predominantly managing waste akin to general waste (non in Worcestershire).

1.5t/cubic metres for Inert waste landfill and non-hazardous waste landfill with SNRHW cell predominantly managing waste akin to inert waste (Hartlebury Landfill Site).

[128] EA Remaining Landfill Void space data shows remaining void space at one site (Waresley landfill) as 500,000 cubic metres lower in both 2020 and 2023 than in other years since the site has been dormant. WCC has discussed this with the EA and this is believed to be an error. The data in Table A 3 - 7 and here has therefore been "corrected" to take this into account.

several more years. In 2023, this site accounted for 62% of remaining void space at non-hazardous waste landfill sites (2.9 million tonnes). The void space at the active site was 1.53 million tonnes at the end of 2023.

A4.58 In 2023, the active non-hazardous waste landfill site provided 50% of *annual* operational landfill capacity. This accounted for 99% of calculated *annual* operational landfill capacity for general waste and 100% of calculated *annual* operational landfill capacity for green waste, food waste, and sludges.

Non-hazardous landfill with SNRHW cell

A4.59 There is one non-hazardous waste landfill site with stable non-reactive hazardous waste (SNRHW) cell in Worcestershire. The site accepts both hazardous waste (specifically asbestos and construction materials containing asbestos), and non-hazardous waste. Records of waste received over the last 5 years indicate that on average 59% of the waste received was inert waste, 40% was hazardous waste[129], and 1% was general waste.

A4.60 In 2023 the site had remaining landfill capacity of 0.59 million tonnes,[130] accounting for 9% of remaining landfill void space capacity (in tonnes). It is not possible to identify the amount of void space specifically to be used for SNRHW.

A4.61 In 2023 the site provided 100% of *annual* operational landfill capacity for hazardous waste and 66% of *annual* operational landfill capacity for inert waste.

[129] Asbestos and construction materials containing asbestos.

[130] The conversion factor 1.5t/cubic metre is used as the site predominantly manages inert waste and hazardous waste with similar characteristics to inert waste. See method for more details.

Worcestershire Baseline: Equivalent self-sufficiency

Overview

A4.62 Equivalent self-sufficiency is identified by comparing the amount of waste arising in Worcestershire in 2023 (by waste composition category and fate) with the calculated waste management capacity in Worcestershire (by waste composition category and waste management category). Subtracting arisings figures from capacity figures reveals either a negative figure indicating a capacity gap, or a positive figure indicating that capacity was sufficient to manage the scale of arisings in 2023.

A4.63 Table A3 - 10 identifies the baseline arisings used in the calculation and Table A3 - 10 identifies the baseline capacity. Both tables include data also reported in the 'Arisings' and 'Capacity' sections in this WNA, but the data is repeated here for ease of reference. They show the annual operational capacity of landfill, rather than the remaining void space, which is considered in Table A3 - 13.

A4.64 The results are shown by waste management category in Table A3 - 11. Table A3 - 12 shows the same information for 'Treatment and recycling', 'Transfer' and 'Other' but aggregates the totals for all 'other recovery' and disposal categories into one figure for 'residual waste management'. Presenting a single set of data for all residual waste management makes it easier to see at a glance whether self-sufficiency is being achieved for the management of residual waste. It may also help when comparing the current baseline with national residual waste targets

A4.65 Where equivalent self-sufficiency is achieved, this is shown as a positive number and is shaded green. Where equivalent self-sufficiency is not achieved this is shown as a negative number and is shaded orange. The results are presented by both waste composition category and treatment type.

A4.66 These baseline calculations provide a snapshot in time. They do not take into account forecasted future needs, the extent to which recycling targets are currently being achieved or the role of waste management infrastructure in the wider circular economy and caution should therefore be exercised when drawing any wider conclusions from this data. At the next stage, they will provide the baseline from which forecasting can be undertaken to assess the need for future waste management capacity, as well as monitoring progress towards equivalent self-sufficiency where there are current or forecast gaps in capacity (see **Part B**).

Table A3 - 9. Fate of waste arising in Worcestershire 2023 (tonnes)

	General waste	Inert waste	Green waste, food waste, and sludges	End of Life Vehicles	Hazardous waste	Total
Treatment and Recycling	271,803	201,077	115,881	16,305	42,365	**647,431**

Other recovery (Energy)	182,458	0	32	0	427	**182,917**
Other recovery (to land)	0	8,706	0	0	0	**8,706**
Disposal: Landfill	101,158	109,175	915	9	1,808	**213,065**
Disposal: Incineration and Combustion	98	0	0	0	1,022	**1,120**
Other	12	6,898	0	0	1,402	**8,312**
Transfer	284,656	59,289	51,050	289	14,674	**409,958**
Total	**840,185**	**385,145**	**167,878**	**16,603**	**61,698**	**1,471,509**

Table A3 - 10. Waste management capacity in Worcestershire 2023 (tonnes)

	General waste	**Inert waste**	**Green waste, food waste, and sludges**	**End of Life Vehicles**	**Hazardous waste**	**Total**
Treatment and Recycling	318,645	262,434	102,092	12,401	51,651	**747,223**
Other recovery (Energy)	219,406	0	0	0	0	**219,406**
Other recovery (to land)	0	54,589	0	0	0	**54,589**
Disposal: Landfill	72,366	64,266	849	7	29,236	**166,724**
Disposal: Incineration and Combustion	55	0	0	0	340	**395**
Other	0	0	0	0	0	**0**
Transfer	309,377	160,547	52,274	124	84,053	**606,375**
Total	**919,849**	**541,836**	**155,215**	**12,532**	**165,280**	**1,794,712**

Table A3 - 11. Achievement of equivalent self-sufficiency in Worcestershire 2023 by waste management category (tonnes)

	General waste	**Inert waste**	**Green waste, food waste, and sludges**	**End of Life Vehicles**	**Hazardous waste**	**Total**[131]
Treatment and Recycling	46,800	61,400	-13,800	-3,900	9,300	**99,800**
Other recovery (Energy)	36,900	N/A	~0	N/A	-400	**36,500**

[131] Totals are calculated after rounding to the nearest 100 has been applied.

Other recovery (to land)	N/A	45,900	N/A	N/A	N/A	**45,900**
Disposal: Landfill	-28,800	-44,900	-100	~0	27,400	**-46,400**
Disposal: Incineration and Combustion	~0	N/A	N/A	N/A	-700	**-700**
Other	~0	-6,900	N/A	N/A	-1,400	**-8,300**
Transfer	24,700	101,300	1,200	-200	69,400	**196,700**
Total[132]	**79,600**	**156,800**	**-12,700**	**-4,100**	**103,600**	**323,600**

Table A3 - 12. Achievement of equivalent self-sufficiency in Worcestershire 2023: combining residual waste management

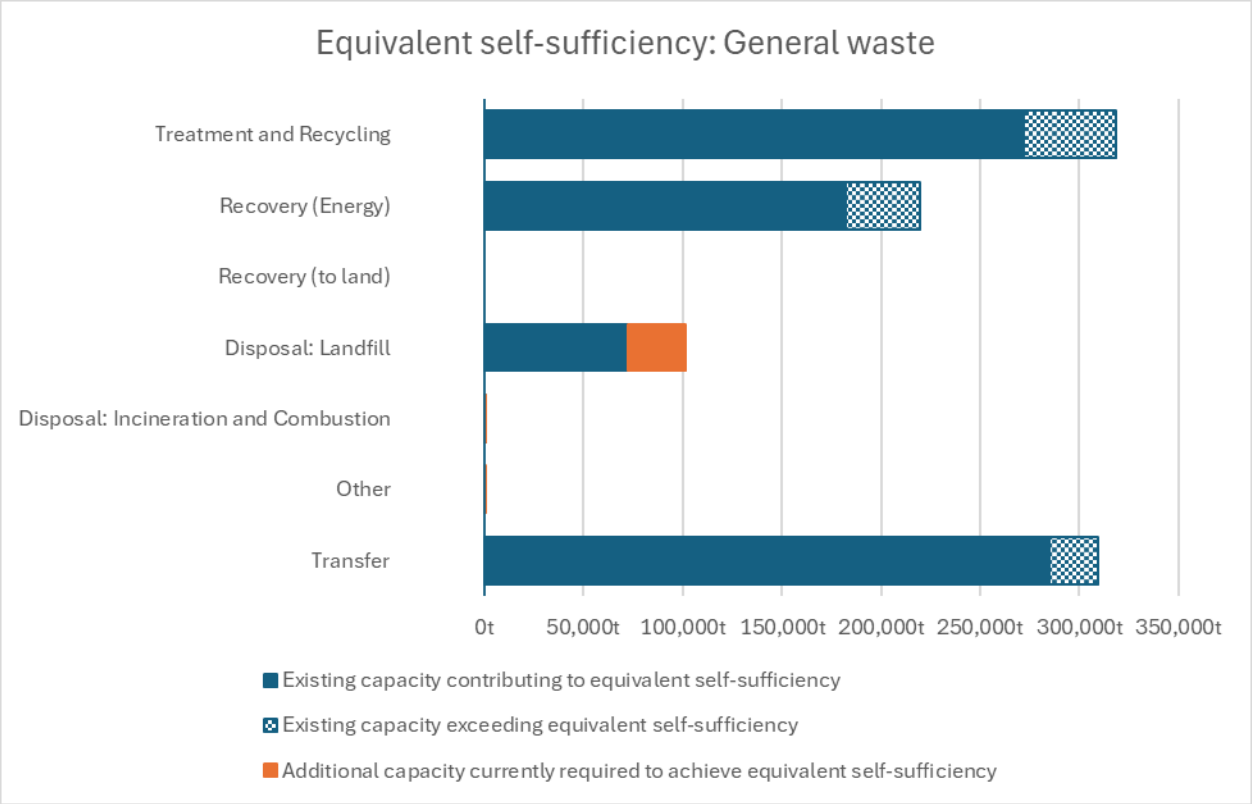
	General waste	**Inert waste**	**Green waste, food waste, and sludges**	**End of Life Vehicles**	**Hazardous waste**	**Total**
Treatment and recycling	46,800	61,400	-13,800	-3,900	9,300	**99,800**
Residual waste management: other recovery and disposal	8,100	1,000	-100	~0	26,300	**35,400**
Other	~ 0	-6,900	N/A	N/A	-1,400	**-8,300**
Transfer	24,700	101,300	1,200	-200	69,400	**196,700**
Total	**79,600**	**156,800**	**-12,700**	**-4,100**	**103,600**	**323,600**

General waste

A4.67 Figure A3 - 11 is intended to show the overall balance between arisings and capacity for general waste and to provide the context for any capacity gap. It shows the capacity available in Worcestershire to manage general waste in blue. Where capacity exceeds arisings, this is shown as blue hatched fill. Where arisings exceed capacity, there is a capacity gap, shown in orange. The figure uses 2023 data from tables Table A3 - 9 to Table A3 - 11 above.

[132] Totals are calculated after rounding to the nearest 100 has been applied.

Figure A3 - 11. Equivalent self-sufficiency: General waste



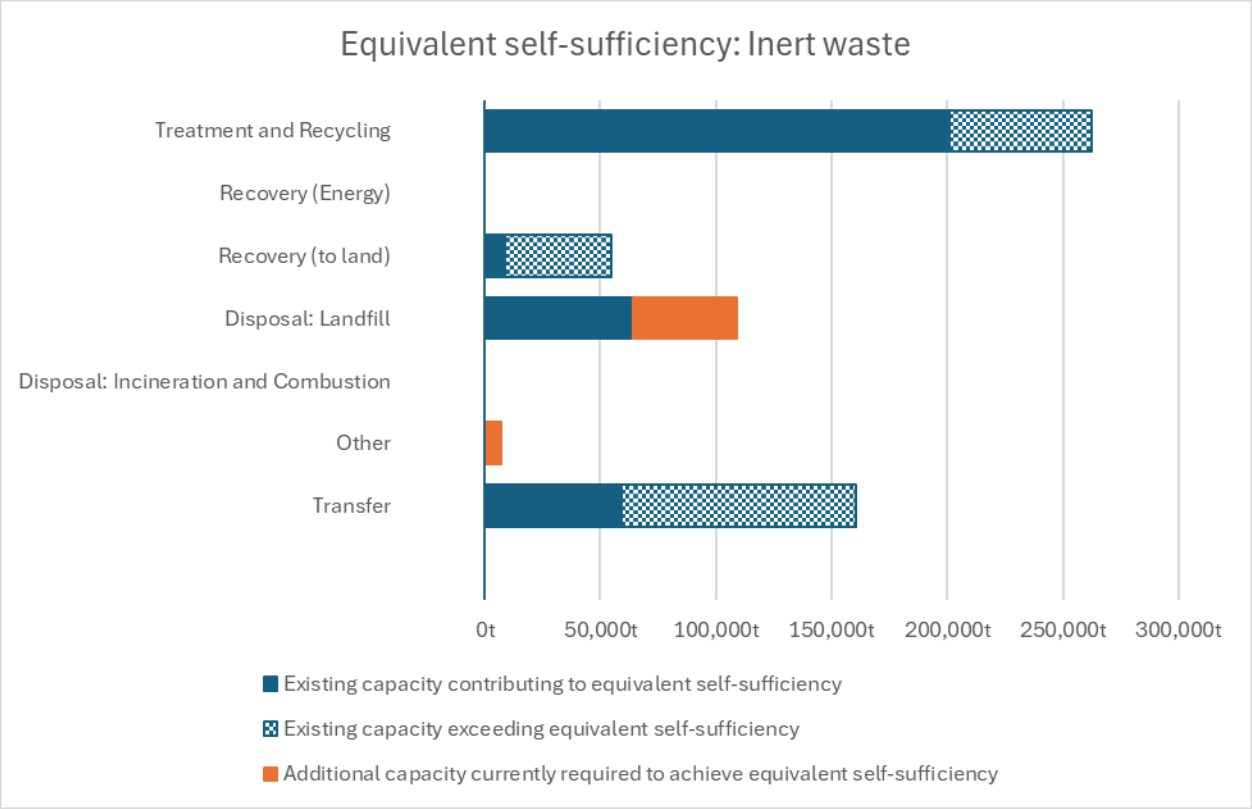
A4.68 In 2023, overall capacity for the management of general waste was 80,000 tonnes more than general waste arisings. This was equivalent to having 9% more capacity than arisings.

A4.69 Equivalent self-sufficiency was exceeded by 17% for treatment and recycling, and 9% for transfer. Overall equivalent self-sufficiency for the management of residual waste was exceeded by 3%. However, looking at residual waste management in more detail this shows that, while the capacity for other recovery (energy) was 20% greater than arisings with a fate of energy recovery, there was a significant (28%) shortfall in operational landfill capacity for general waste, despite the availability of adequate landfill void space (see **Landfill void space** below).

Inert waste

A4.70 Figure A3 - 12 is intended to show the overall balance between arisings and capacity for inert waste and to provide the context for any capacity gap. It shows the capacity available in Worcestershire to manage inert waste in blue, where capacity exceeds arisings this is shown as blue hatched fill, where arisings exceed capacity and there is a capacity gap this is shown in orange. The figure uses 2023 data from Table A3 - 9 to Table A3 - 11 above.

Figure A3 - 12. Equivalent self-sufficiency: Inert waste



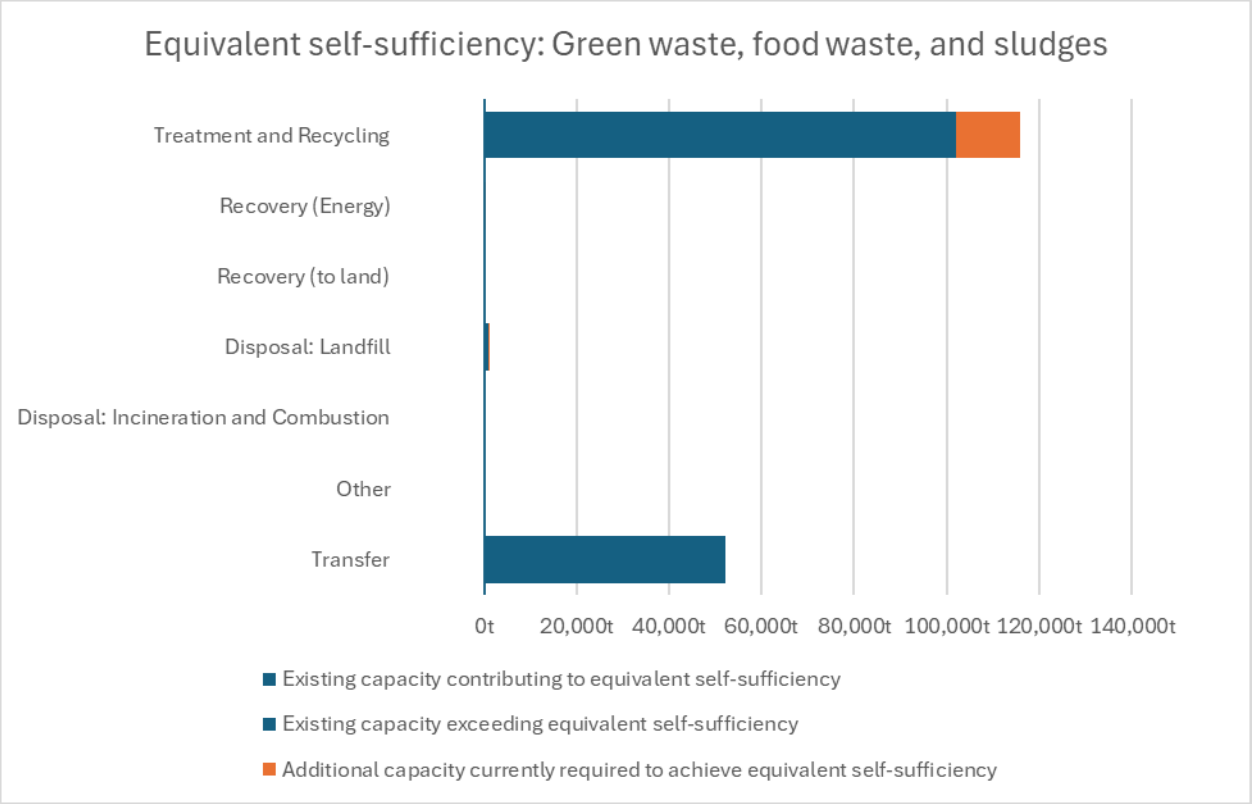
A4.71 In 2023, overall capacity for the management of inert waste was 41% (157,000 tonnes) more than inert waste arisings. Equivalent self-sufficiency was exceeded by 31% for treatment and recycling, and by 171% for transfer. Transfer accounts for 30% of the total capacity for managing inert waste in Worcestershire, despite only accounting for the fate of 15% of inert waste arisings.

A4.72 Equivalent self-sufficiency was not achieved for 'landfill' when considering annual operational capacity, with a shortfall of 41%, despite void space being available (see below). However overall equivalent self-sufficiency was exceeded by 1% for residual waste management capacity, due to recovery to land exceeding equivalent self-sufficiency by 527%, although the scale of this is exacerbated due to low tonnage.

Green waste, food waste and sludges

A4.73 Figure A3 - 12 is intended to show the overall balance between arisings and capacity and provide the context for any capacity gap. It shows the capacity available in Worcestershire to manage green waste, food waste and sludges in blue. Where capacity exceeds arisings, this is shown as blue hatched fill. Where arisings exceed capacity and there is a capacity gap, this is shown in orange. The figure uses 2023 data from Table A3 - 9 to Table A3 - 11 above.

Figure A3 - 13. Equivalent self-sufficiency: Green waste, food waste and sludges



A4.74 In 2023, overall capacity for the management of green waste, food waste and sludges was 8% (12,700 tonnes) less than arisings of green waste, food waste and sludges. The capacity gap was primarily in treatment and recycling, where capacity was 12% less than arisings with a fate of 'treatment and recycling'.

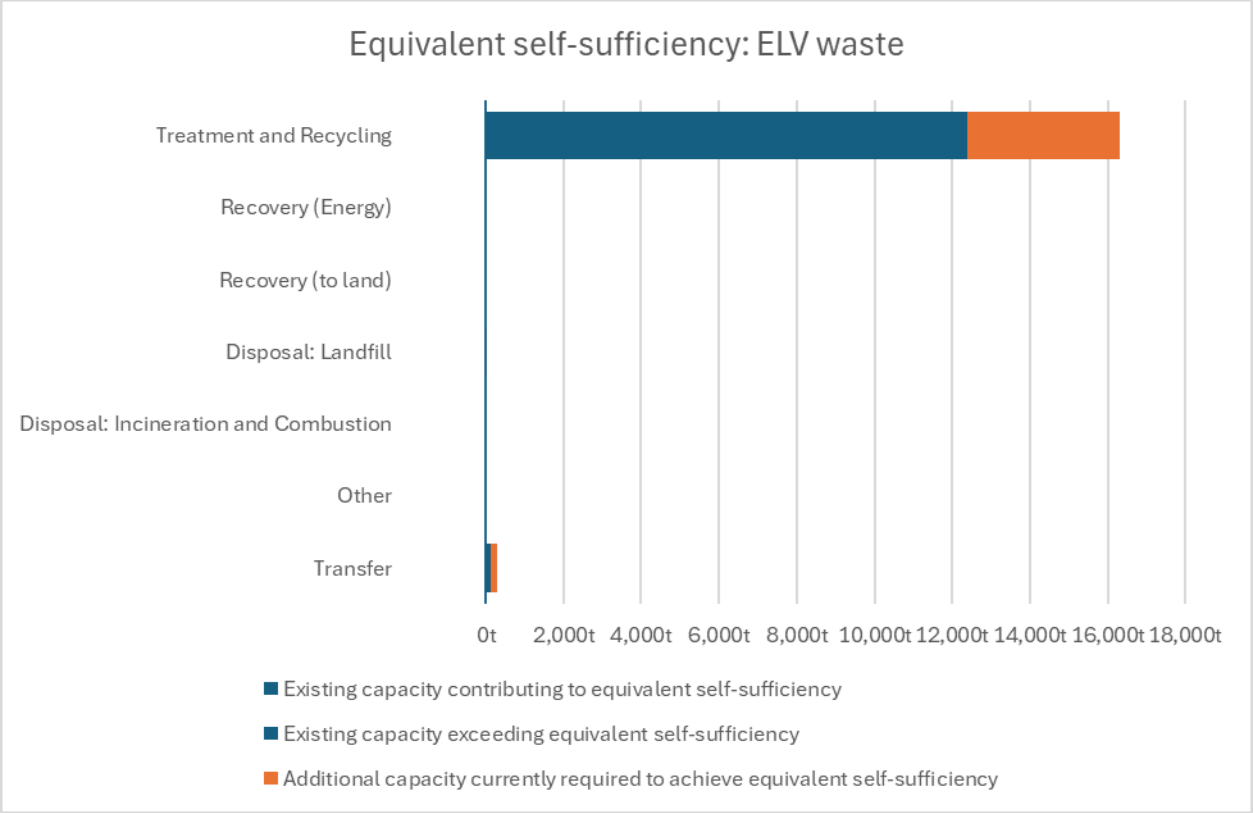
A4.75 Capacity for managing residual green waste, food waste and sludges was 10% lower than arisings although, due to the low tonnages involved, this capacity was only 100 tonnes less than arisings. The quantities of waste with a fate of 'other recovery' were negligible. The only residual waste management capacity recorded for green waste, food waste and sludges in Worcestershire was by disposal to landfill.

A4.76 Transfer capacity exceeded arisings with a fate of transfer by 2% (1,200 tonnes).

End of life vehicles

A4.77 Figure A3 - 14 is intended to show the overall balance between arisings and capacity and provide the context for any capacity gap. It shows the capacity available in Worcestershire to manage ELV waste in blue. Where capacity exceeds arisings, this is shown as blue hatched fill. Where arisings exceed capacity and there is a capacity gap, this is shown in orange. The figure uses 2023 data from Table A3 - 9 to Table A3 - 11 above.

Figure A3 - 14. Equivalent self-sufficiency: ELV waste



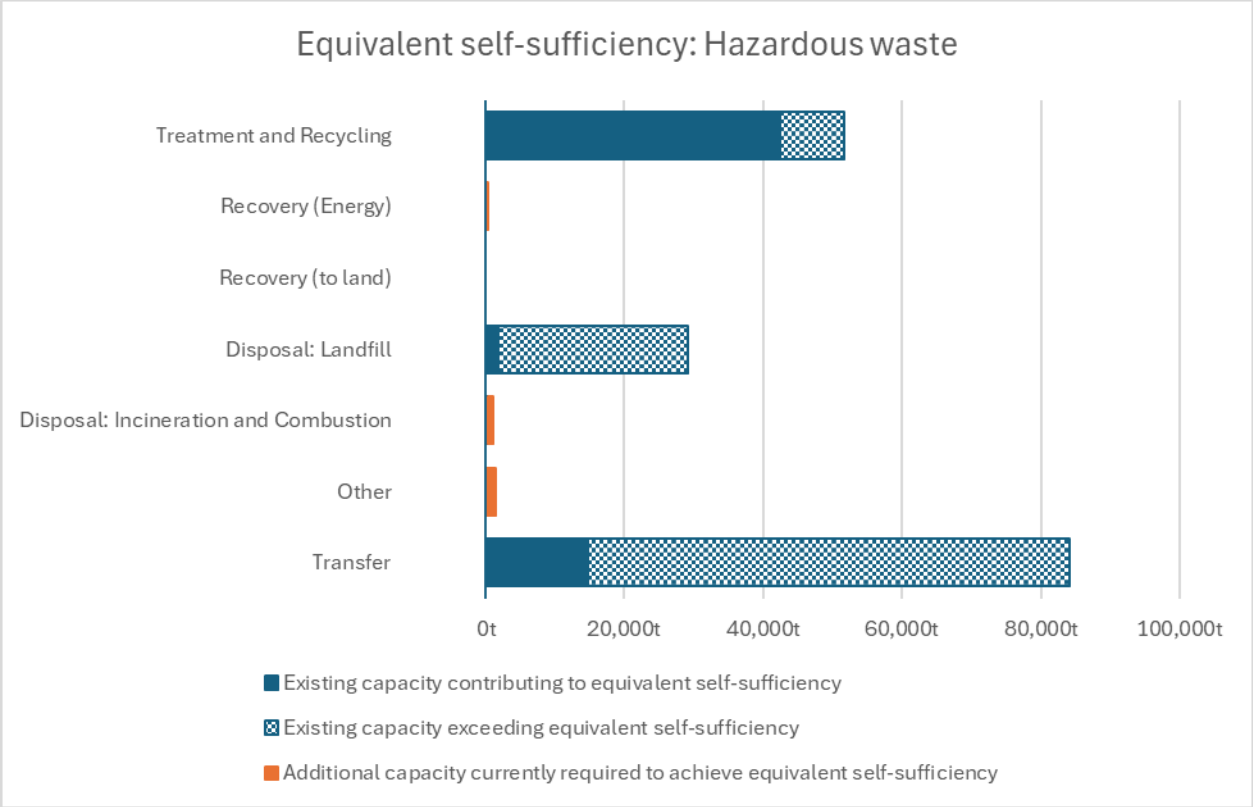
A4.78 In 2023 overall capacity for the management of ELV waste was 25% (4,100 tonnes) less than ELV waste arisings.

A4.79 Capacity for 'treatment and recycling' of ELV waste was 24% (3,900 tonnes) less than arisings with a fate of 'treatment and recycling'. There is also a gap of 25% between the transfer capacity for ELV waste and arisings with a fate of transfer, although this gap is small in real terms at only 200 tonnes.

Hazardous waste

A4.80 Figure A3 - 15 is intended to show the overall balance between arisings and capacity and provide the context for any capacity gap. It shows the capacity available in Worcestershire to manage hazardous waste in blue. Where capacity exceeds arisings, this is shown as blue hatched fill. Where arisings exceed capacity and there is a capacity gap, this is shown in orange. The figure uses 2023 data from Table A3 - 9 to Table A3 - 11 above.

Figure A3 - 15. Equivalent self-sufficiency: Hazardous waste



A4.81 In 2023, overall capacity for the management of hazardous waste was 168% (103,600 tonnes) more than hazardous waste arisings.

A4.82 There were relatively small capacity gaps of 400 tonnes for 'other recovery (energy)' and 1,400 tonnes for 'other' with no capacity for these fates for hazardous waste in Worcestershire. There was also a gap of 33% (700 tonnes) for 'disposal: incineration and combustion' of hazardous waste.

A4.83 Capacity for treatment and recycling of residual waste was 22% (9,300 tonnes) more than arisings with a fate of 'treatment and recycling'.

A4.84 Landfill and transfer capacity for hazardous waste in Worcestershire both play a strategic role. Operational landfill capacity for hazardous waste was 1517% (27,400 tonnes) more than the quantity of hazardous waste arisings with a fate of landfill. This capacity is at a single site (WWS038).

A4.85 Transfer capacity for hazardous waste was 473% (69,400 tonnes) higher than the quantity of hazardous waste arisings with a fate of transfer. This is primarily at two sites, with one site (WWS050) providing 57% of the transfer capacity for hazardous waste in Worcestershire and another (WWS040) providing 12%.

Landfill void space

A4.86 Landfill void space is the amount of finite landfill capacity remaining in Worcestershire as of 2023. Table A3 - 13 shows the remaining landfill capacity in Worcestershire in tonnes. It also includes an estimate of when this void space will be filled, based on the scale of Worcestershire's arisings with a fate of landfill remaining stable at 2023 tonnages (expressed in years remaining). This does not take account of any forecasts set out in **Part**

B, or the understanding that landfills are strategic waste management facilities that often serve a wider geographical area than the waste planning authority within which they are located. It does however provide a useful indicator of equivalent self-sufficiency for the purposes of identifying the baseline within the WNA.

Table A3 - 13. Capacity gap: Remaining landfill capacity

Type of remaining landfill capacity (tonnes)	Remaining capacity end 2023 (tonnes)	Years remaining based on Worcestershire arisings with fate of landfill 2023
Inert	1,179,017	10.8 years
Non-Hazardous	4,667,861*	45.7 years
Non-Hazardous with SNRHW cell	587,103	302.2 years

* EA Remaining Landfill Void space data shows remaining void space at one site (Waresley landfill) as 500,000 cubic metres lower in both 2020 and 2023 than in other years since the site has been dormant. WCC has discussed this with the EA and this is believed to be an error. The data in Table A3 - 13 has therefore been "corrected" to take this into account.

A4.87 Based on the assumption that Worcestershire's arisings with a fate of landfill will remain stable at 2023 tonnages, there is adequate void space remaining to achieve equivalent self-sufficiency for all types of landfill for at least 10.8 years. However, this will also be considered in the context of the forecast scenarios in **Part B**.

A4. Strategic movements of waste: Results

Introduction

A4.1 In line with national guidance, one of the purposes of WNAs is to understand strategic imports and exports of waste. [133] Some cross-boundary movements of waste are inevitable and reflect the normal working of the economy, but understanding whether the scale of movements of waste between Worcestershire and another WPA could be strategically important is necessary to inform the preparation of the Waste Plan.

A4.2 Whether movements of waste are considered strategic or not will usually depend on the scale of the movements and the type of waste, and can be influenced by the degree of reliance on the waste management infrastructure involved. Where there are strategic movements of waste between Worcestershire and other WPA areas, this will inform the preparation of the Worcestershire Waste Plan.

A4.3 In this section 'general waste' and 'green waste, food waste, and sludges' and 'ELV waste' composition categories are considered together and are referred to as 'Non-hazardous waste'. Inert waste and hazardous waste are considered separately. These groupings have been used to support consistency with regional protocols that set out tonnages for the scale of movements of different types of waste which could be considered strategic. The data used is for 2020-2024, rather than 2019-2023 as used elsewhere in the WNA baseline. This is because the WDI data can be used without the consideration of any other data, whereas the other sections rely on the use of WasteDataFlow which, at the time of writing, had not been published for 2024.

Inert waste

Overview

A4.4 Table A4 - 1 shows the balance of imports and exports of inert waste to and from Worcestershire for the last 5 years. Table A4 - 2 shows imports and exports of inert waste to and from Worcestershire as a % of waste arising/managed in Worcestershire to provide context about the scale and strategic importance of those movements.

[133] Waste - GOV.UK (www.gov.uk) Paragraph: 022 Reference ID: 28-022-20141016. Revision date: 16 10 2014

Table A4 - 1. Balance of imports and exports of inert waste to and from Worcestershire (2020-2024)

	2020	2021	2022	2023	2024
Total imports	25,061	43,120	51,678	82,807	32,388
Total exports	37,188	26,252	51,449	29,917	54,497
Balance	-12,127	16,868	229	52,890	-22,109
W'shire position	Net exporter	Net importer	Net importer	Net importer	Net exporter

Table A4 - 2. Imports and exports of inert waste to and from Worcestershire as a % of waste arising/managed (2020-2024)

	2020	2021	2022	2023	2024
% of inert waste managed in W'shire that originated elsewhere	12%	9%	15%	8%	13%
% of inert waste arising in W'shire that is managed elsewhere	8%	12%	14%	18%	7%

A4.5 Between 2020 and 2024 there is no overall trend in the balance of movements of inert waste, with Worcestershire being a net exporter in 2020 and 2024 but a net importer in the other three years. During this time less than 18% of the inert waste arising in Worcestershire was managed in another WPA and less than 15% of the inert waste managed in Worcestershire originated in another WPA.

Regional patterns of inert waste movements

A4.6 Figure A4 - 1 and Table A4 - 3 show the origin of inert waste received in Worcestershire by region for the last 5 years. Figure A4 - 2 and Table A4 - 4 show the destination of inert waste originating in Worcestershire by region for the last 5 years.

Figure A4 - 1. Origin of hazardous waste received at facilities in Worcestershire by region (excluding waste with an origin of Worcestershire)

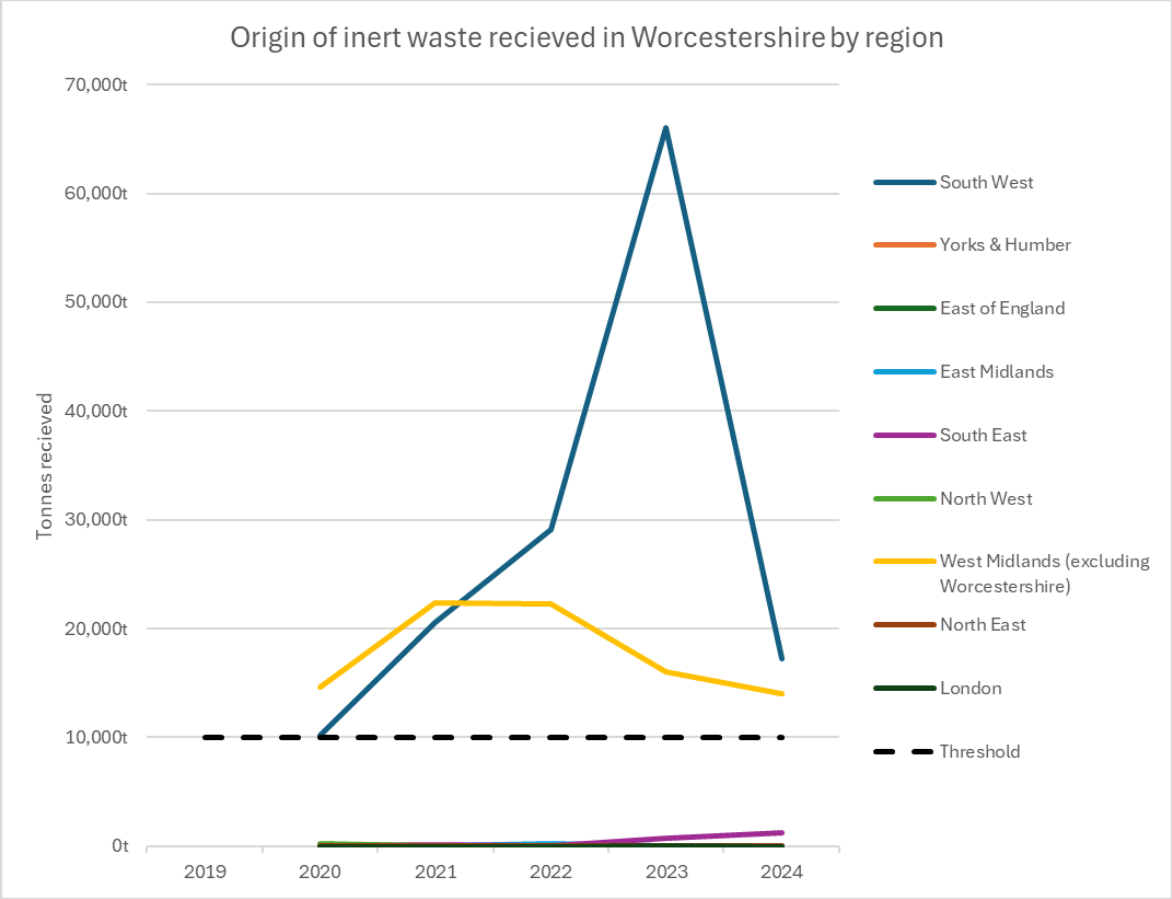


Table A4 - 3. Origin of inert waste received at facilities in Worcestershire by region (excluding waste with an origin of Worcestershire)

Origin	2020	2021	2022	2023	2024
South West	***10,222***	***20,553***	***29,069***	***66,003***	***17,184***
Yorks & Humber	0	0	13	0	4
East of England	48	0	0	9	9
East Midlands	0	25	228	45	3
South East	21	131	57	687	1,188
North West	179	1	0	0	0
West Midlands (excluding Worcestershire)	***14,591***	***22,411***	***22,312***	***16,061***	***14,000***
North East	0	0	0	0	0
London	0	0	0	3	0
Total imports	**25,061**	**43,121**	**51,679**	**82,808**	**32,388**

Note: Regional figures shown in ***bold italics*** are above the thresholds set out in paragraph A2.182.

Figure A4 - 2. Destination of inert waste from Worcestershire by region (excluding waste with an origin and destination of Worcestershire)

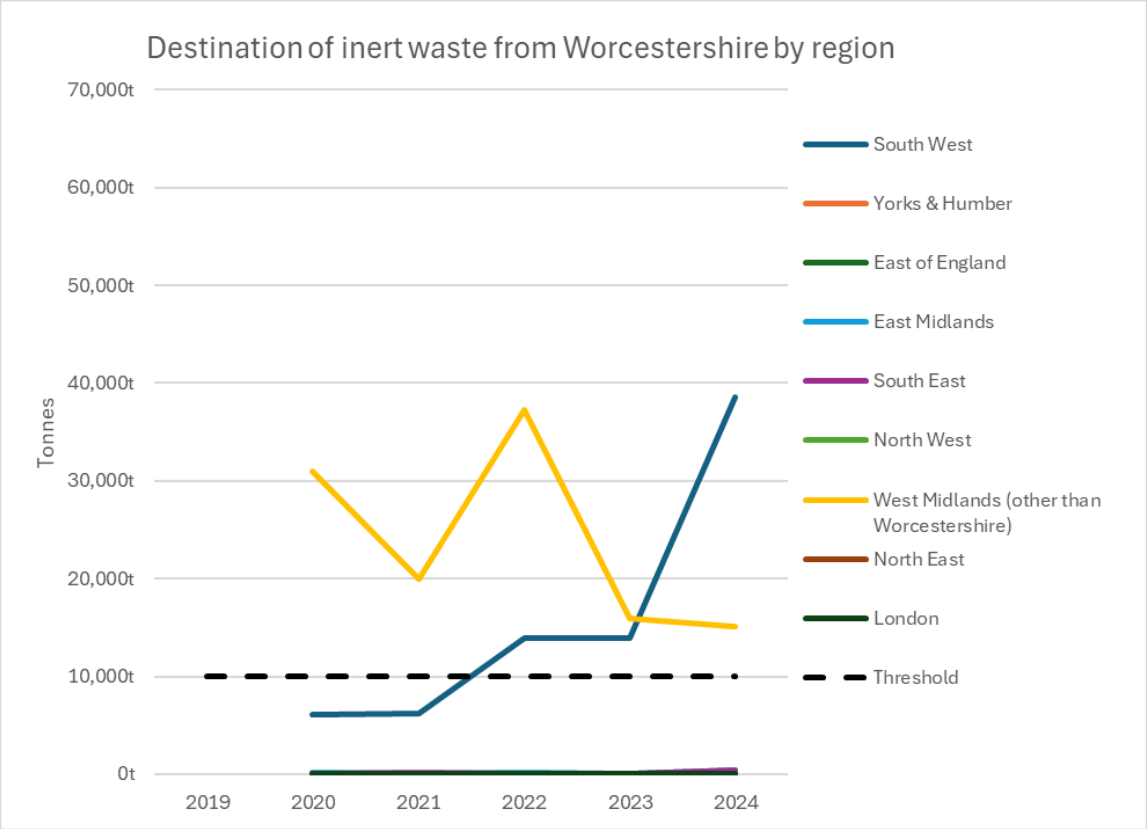


Table A4 - 4. Destination of inert waste from Worcestershire by region (excluding waste with an origin and destination of Worcestershire)

Destination	2020	2021	2022	2023	2024
South West	6,057	6,174	***13,923***	***13,897***	***38,607***
Yorks & Humber	17	0	2	3	8
East of England	0	0	0	0	39
East Midlands	174	0	223	53	360
South East	0	113	20	0	359
North West	13	12	0	3	0
West Midlands (excluding Worcestershire)	***30,927***	***19,953***	***37,283***	***15,962***	***15,125***
North East	0	0	0	0	0
London	0	0	0	0	0
Total exports	**37,188**	**26,252**	**51,451**	**29,918**	**54,498**

Note: Regional figures shown in ***bold italics*** are above the thresholds set out in paragraph A2.182.

A4.7 This data shows total movements of inert waste for all regions except the West Midlands and South West were less than 10,000 tonnes per annum between 2020 and 2024.[134]

[134] Note, this analysis uses the WNA definition of the inert waste as defined in appendix 2. This differs to the "Inert/C+D" Basic Waste categories used in the WDI for the reasons outlined in paragraphs A2.68 and A2.69. If the WDI Basic Waste categories are used, then movements of inert wastes to Cheshire West and Chester (North West) are more than 10,000 tonnes in 2022 and 2023 and movements of inert wastes to Thurrock (East

During this time at least 99% of the waste exported from Worcestershire had a destination of either West Midlands or South West and at least 99% of inert waste imported into Worcestershire was from either West Midlands or South West. However, the split between these two regions fluctuated annually. In four of the five years, exports to the West Midlands were greater than those the South West, where as for three of the five years imports from the South West were greater than those from the West Midlands.

Patterns of waste movement by WPAs

A4.8 Figure A4 - 4, Table A4 - 4, **Error! Reference source not found.**Table A4 - 4. Destination of inert waste from Worcestershire by region (excluding waste with an origin and destination of Worcestershire) and Table A4 - 5 show the movements of inert waste by WPA for the last 5 years. These show movements between specific WPAs where the 10,000 tonnes threshold was exceeded in at least one year, and a combined total for all other WPAs for which movements were below the threshold in every year.

Figure A4 - 3. Origin of inert waste received at facilities in Worcestershire by WPA (excluding waste with an origin of Worcestershire)

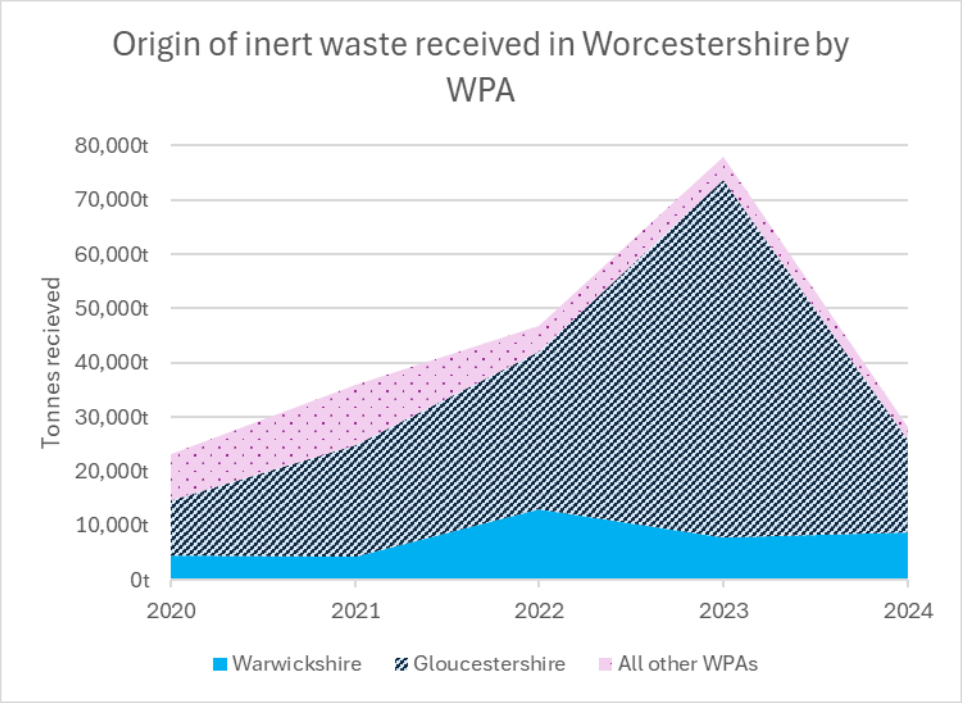


Table A4 - 5. Origin of inert waste received at facilities in Worcestershire by WPA (excluding waste with an origin of Worcestershire)

Origin	2020	2021	2022	2023	2024
Warwickshire	4,448	4,356	***12,946***	7,798	8,659
Gloucestershire	***10,214***	***20,553***	***29,066***	***66,002***	***17,184***
All other WPAs	8,546	10,937	4,731	4,087	2,167

Note 1: Figures shown in ***bold italics*** are above the thresholds set out in paragraph A2.182.

of England) are more than 10,000 tonnes in 2020, 2021 and 2022. This is because WDI Basic Waste categories consider EWC 19 12 05 Glass from the mechanical treatment of waste and EWC 17 02 02 Glass from construction and demolition waste as “Inert/C+D”, whereas the WNA considers this as part of the general waste composition category.

Note 2: This analysis uses the WNA definition of the inert waste as defined in appendix 2. This differs to the "Inert/C+D" Basic Waste categories used in the WDI for the reasons outlined in A2.68 and A2.69. If the WDI Basic Waste categories are used, then imports from Birmingham City exceed 10,000 tonnes in 2021. This is because WDI Basic Waste categories consider metals within EWC 17 as "Inert/C+D", whereas the WNA considers this as part of the general waste composition category.

Figure A4 - 4. Destination of inert waste from Worcestershire by WPA (excluding waste with an origin and destination of Worcestershire)

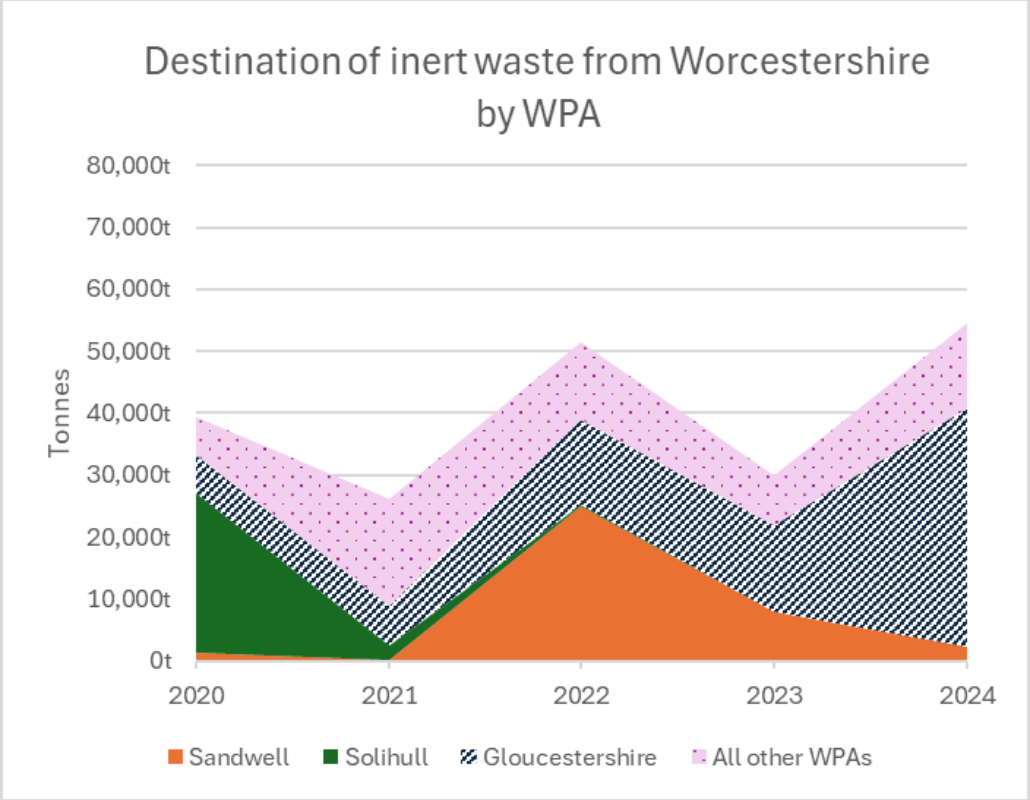


Table A4 - 6. Destination of inert waste from Worcestershire by WPA (excluding waste with an origin and destination of Worcestershire)

	2020	2021	2022	2023	2024
Sandwell	1,200	154	***24,872***	7,990	2,355
Solihull	***26,003***	2,440	220	0	0
Gloucestershire	6,057	6,174	***13,904***	***13,897***	***38,533***
All other WPAs	6,139	17,484	12,453	8,030	13,609

Note: Figures shown in ***bold italics*** are above the thresholds set out in paragraph A2.182.

Movements of inert waste into Worcestershire

A4.9 Worcestershire received more than 10,000 tonnes of inert waste from two WPAs in at least one year between 2020 and 2024. Only one WPA (Gloucestershire) exceeded the threshold in at least three of the last five years.

Inert waste received at individual facilities in Worcestershire

A4.10 Table A4 - 7 shows inert waste received at sites in Worcestershire where waste originating in a WPA other than Worcestershire exceeded 10,000 tonnes in any year in the last 5 years.

Table A4 - 7. Inert Waste received at sites in Worcestershire (movements exceeding 10,000 tonnes)

Worcestershire site	Originating WPA	2020	2021	2022	2023	2024
MRW (Midlands Reclamation and Waste) Limited, Long Marston (WWS030)	Warwickshire	**48,231**	Below threshold	Below threshold	**12,046**	**22,966**
Wrubble Limited, Throckmorton (WWS057)	Gloucestershire	Below threshold	**11,562**	**12,152**	**11,646**	**15,911**
Hill Farm, Berrow (WWS065)	Gloucestershire	Below threshold	Below threshold	**16,841**	**54,424**	Below threshold

Note 1: Figures shown in ***bold italics*** are above the thresholds set out in paragraph A2.182.
Note 2: This data uses the 'basic waste type' categories available in the WDI and is therefore not directly comparable to other data in this section.

A4.11 Where a site received waste from another WPA which exceeded 10,000 tonnes in three of the last five years, this is taken as an indication that there is the potential there to be a strategic reliance on the facility. This is the case with movements from Warwickshire to WWS030: MRW (Midlands Reclamation and Waste) Limited, Long Marston and from Gloucestershire to WWS057: Wrubble Limited, Throckmorton. It is likely that proximity of the site to the respective county boundary with these WPAs is likely to a significant factor.

WWS030 MRW (Midlands Reclamation and Waste) Limited, Long Marston

A4.12 WWS030: MRW (Midlands Reclamation and Waste) Limited, Long Marston is a storage and transfer facility. In 2023 the site had a calculated capacity of 25,110 tonnes per annum.[135] In every year from 2020 to 2024, all of the waste managed at the site was from Warwickshire.

WWS057 Wrubble Limited, Throckmorton

A4.13 WWS057: Wrubble Limited, Throckmorton is a Physical/Chemical Treatment facility. In 2023 the site had a calculated capacity of 6,4012t per annum.[136]

Movements of inert waste originating in Worcestershire

A4.14 More than 10,000 tonnes of non-hazardous waste from Worcestershire was received by three WPAs in at least one year between 2020 and 2024. These three WPAs accounted for 63% to 95% of the inert waste originating in Worcestershire but managed elsewhere. Of these, only Gloucestershire received more than 10,000 tonnes of inert waste from Worcestershire in at least three of the last five years.

[135] Based on the 5-year peak.

[136] Based on the 5-year peak.

Movements of inert waste originating in Worcestershire to facilities in other WPAs

A4.15 Table A4 - 8 shows inert waste originating in Worcestershire received at facilities in another WPA, where annual movements exceeded 10,000 tonnes in any year in the last 5 years.

Table A4 - 8. Inert Waste from Worcestershire received at sites outside of Worcestershire (movements exceeding 10,000 tonnes)

Receiving WPA	Receiving site (as referred to in WDI)	2020	2021	2022	2023	2024
Sandwell	ERQ - STC, EPR/HP3632RP/V003	Below threshold	Below threshold	**22,733**	Below threshold	Below threshold
Solihull	Meriden Quarry Landfill Site Area G 402326	**26,003**	Below threshold	Below threshold	Below threshold	Below threshold
Gloucestershire	Budget Skip Hire 104587	Below threshold	**11,705**	Below threshold	Below threshold	Below threshold
Gloucestershire	Wingmoor Farm Landfill Site - EPR/SP3035SX	Below threshold	Below threshold	Below threshold	Below threshold	**34,423**

Note 1: Figures shown in ***bold italics*** are above the thresholds set out in paragraph A2.182.
Note 2: This data uses the 'basic waste type' categories available in the WDI and is therefore not directly comparable to other data in this section.

A4.16 Where a site received more than 10,000 tonnes from Worcestershire in three of the last five years this is taken as an indication that there is the potential for Worcestershire to have a strategic reliance on the facility. This is not the case for any movements of inert waste from Worcestershire to any other WPA.

Non-hazardous waste

Overview

A4.17 Table A4 - 9 shows the balance of imports and exports of non-hazardous waste to and from Worcestershire for the last 5 years. Table A4 - 10 shows imports and exports of non-hazardous waste to and from Worcestershire as a % of waste arising/managed in Worcestershire to provide context about the scale and strategic importance of those movements.

Table A4 - 9. Balance of imports and exports of non-hazardous waste to and from Worcestershire (2020-2024)

	2020	2021	2022	2023	2024
Total imports	202,272	229,136	247,423	218,873	152,513
Total exports	225,994	215,779	214,835	196,616	195,573
Balance	-23,722	13,357	32,588	22,257	-43,060
W'shire position	Net exporter	Net importer	Net importer	Net importer	Net exporter

Table A4 - 10. Imports and exports of non-hazardous waste to and from Worcestershire as a % of waste arising/managed (2020-2024)

	2020	2021	2022	2023	2024
% of waste managed in W'shire that originated elsewhere	19%	19%	22%	18%	13%
% of waste arising in W'shire that is managed elsewhere	21%	20%	21%	19%	18%

A4.18 Between 2020 and 2024 there is no overall trend in the balance of movements of non-hazardous waste, with Worcestershire being a net exporter in 2020 and 2024 but a net importer in the other three years. During this time between 18% and 21% of the non-hazardous waste arising in Worcestershire was managed in another WPA and between 13% and 22% of non-hazardous waste managed in Worcestershire originated in another WPA.

Regional patterns of waste movements

A4.19 Figure A4 - 5 and Table A4 - 11 show the origin of non-hazardous waste received in Worcestershire by region for the last 5 years. Figure A4 - 7 and Table A4 - 11 show the destination of non-hazardous waste originating in Worcestershire by region for the last 5 years.

Figure A4 - 5. Origin of non-hazardous waste received at facilities in Worcestershire by region (excluding waste with an origin of Worcestershire)

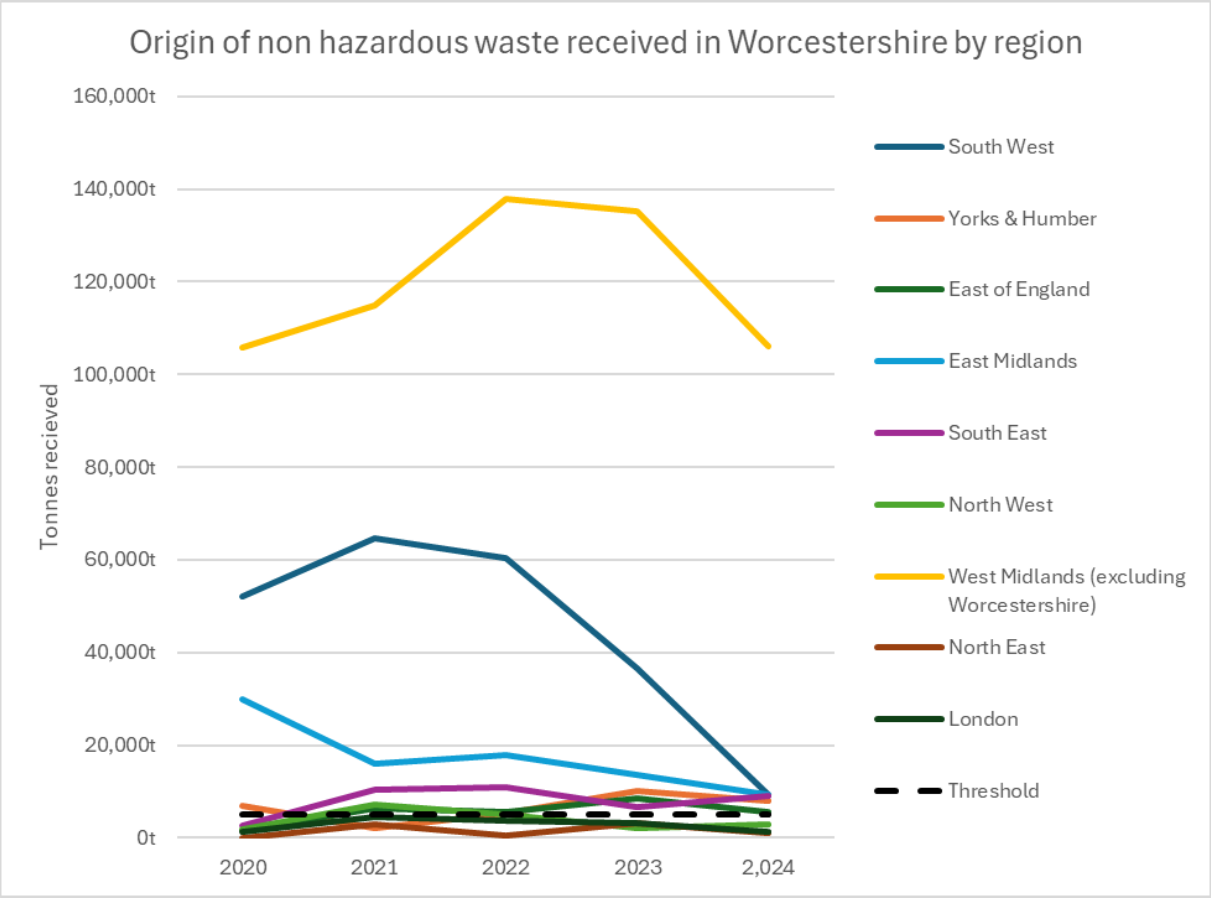


Table A4 - 11. Origin of non-hazardous waste received at facilities in Worcestershire by region (excluding waste with an origin of Worcestershire)

	2020	2021	2022	2023	2024
South West	***52,109***	***64,577***	***60,489***	***36,518***	***9,397***
Yorks & Humber	***6,990***	2,209	***5,366***	***10,064***	***7,859***
East of England	1,570	***6,279***	***5,692***	***8,528***	***5,545***
East Midlands	***29,778***	***16,098***	***17,955***	***13,522***	***9,433***
South East	2,666	***10,504***	***10,922***	***6,722***	***8,948***
North West	1,906	***7,066***	4,981	2,141	2,797
West Midlands (excluding Worcestershire)	***105,823***	***114,883***	***137,808***	***135,161***	***106,160***
North East	29	2,935	537	3,118	961
London	1,401	4,584	3,673	3,101	1,412
Total imports	**202,272**	**229,136**	**247,423**	**218,875**	**152,512**

Note: Regional figures shown in ***bold italics*** are above the thresholds set out in paragraph A2.182.

Figure A4 - 6. Destination of non-hazardous waste from Worcestershire by region (excluding waste with an origin and destination of Worcestershire)

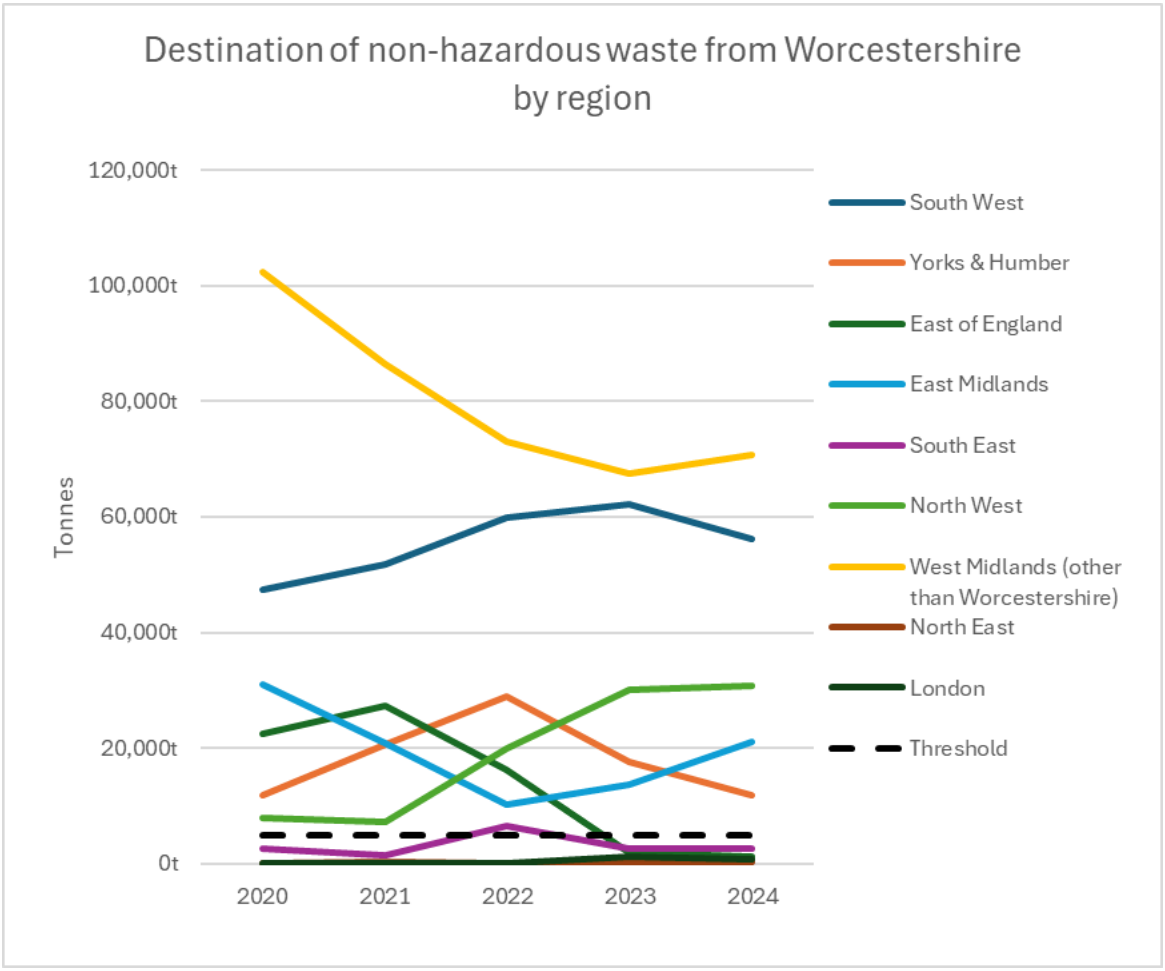


Figure A4 - 7. Destination of non-hazardous waste from Worcestershire by region (excluding waste with an origin and destination of Worcestershire)

	2020	2021	2022	2023	2024
South West	***47,429***	***51,677***	***59,773***	***62,086***	***56,251***
Yorks & Humber	***11,783***	***20,666***	***28,992***	***17,647***	***11,766***
East of England	***22,436***	***27,337***	***16,197***	1,882	1,334
East Midlands	***31,030***	***20,760***	***10,239***	***13,778***	***21,044***
South East	2,725	1,479	***6,594***	2,525	2,636
North West	***8,024***	***7,224***	***19,821***	***30,055***	***30,896***
West Midlands (excluding Worcestershire)	***102,435***	***86,330***	***73,137***	***67,374***	***70,668***
North East	120	283	42	54	261
London	13	24	71	1,215	720
Total exports	**225,995**	**215,780**	**214,866**	**196,616**	**195,576**

Note: Regional figures shown in ***bold italics*** are above the thresholds set out in paragraph A2.182.

A4.20 This data shows that more than 5,000 tonnes of non-hazardous waste originating in Worcestershire was received by every region except the North East and London in at least one year between 2020 and 2024.[137]

A4.21 During this time movements between Worcestershire and the rest of the West Midlands were higher than between any other region, with between 50% and 70% of non-hazardous waste imports into Worcestershire being from West Midlands and between 34% and 45% of non-hazardous waste exports from Worcestershire being to the West Midlands. The second highest level of exports were to the South West across all five years and the second highest level of imports were from the South West for four out of five years.

Patterns of waste movement by WPAs

A4.22 Figure A4 - 8, Table A4 - 12, Figure A4 - 9 and Table A4 - 13 show the movements of non-hazardous waste by WPA for the last 5 years. These show movements between specific WPAs where the 5,000-tonne threshold was exceeded in at least one year, and a combined total for all other WPAs for which movements were below the threshold in every year.

A4.23 In these graphs, WPAs in the West Midlands are shown as solid colours, WPAs in the South West are shown with diagonal fill and WPAs in other regions are shown in zig-zag fill. Movements from all WPAs below the threshold are combined (not split by region) and shown in dotted fill.

[137] Note, this analysis uses the WNA definition of the inert waste as defined in appendix 2. This differs to the "Inert/C+D" Basic Waste categories used in the WDI for the reasons outlined in paragraphs A2.68 and A2.69. If the WDI Basic Waste categories are used, then movements of inert wastes to Cheshire West and Chester (North West) are more than 10,000 tonnes in 2022 and 2023 and movements of inert wastes to Thurrock (East of England) are more than 10,000 tonnes in 2020, 2021 and 2022. This is because WDI Basic Waste categories consider EWC 19 12 05 Glass from the mechanical treatment of waste and EWC 17 02 02 Glass from construction and demolition waste as "Inert/C+D", whereas the WNA considers this as part of the general waste composition category.

Figure A4 - 8. Origin of non-hazardous waste received at facilities in Worcestershire by WPA (excluding waste with an origin of Worcestershire)

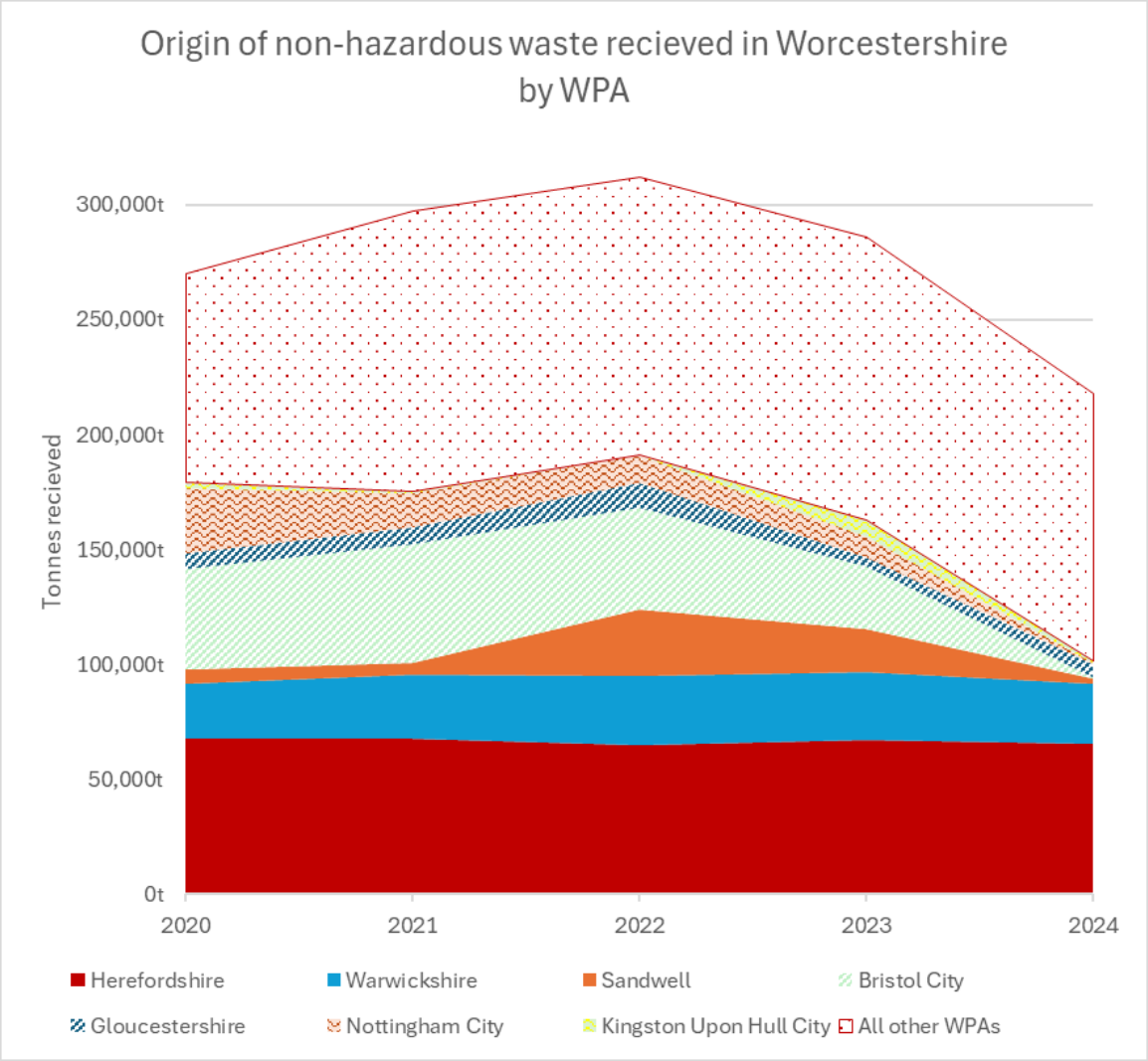


Table A4 - 12 Origin of non-hazardous waste received at facilities in Worcestershire by WPA (excluding waste with an origin of Worcestershire)

Origin	2020	2021	2022	2023	2024
Herefordshire	***67,847***	***67,989***	***64,778***	***67,295***	***65,226***
Warwickshire	***23,843***	***27,627***	***29,957***	***29,175***	***26,586***
Sandwell	***6,060***	4,944	***29,026***	***18,910***	2,078
Bristol City	***43,993***	***51,665***	***44,240***	***27,377***	521
Gloucestershire	***6,513***	***7,354***	***10,863***	4,130	***5,707***
Nottingham City	***28,626***	***15,137***	***12,213***	***9,023***	472
Kingston Upon Hull City	2,169	310	71	***6,916***	1,044
Imports from all other WPAs	91,068	122,099	121,053	123,344	116,104

Note: Figures shown in ***bold italics*** are above the thresholds set out in A2.182.

Figure A4 - 9. Destination of non-hazardous waste from Worcestershire by WPA (excluding waste with an origin and destination of Worcestershire)

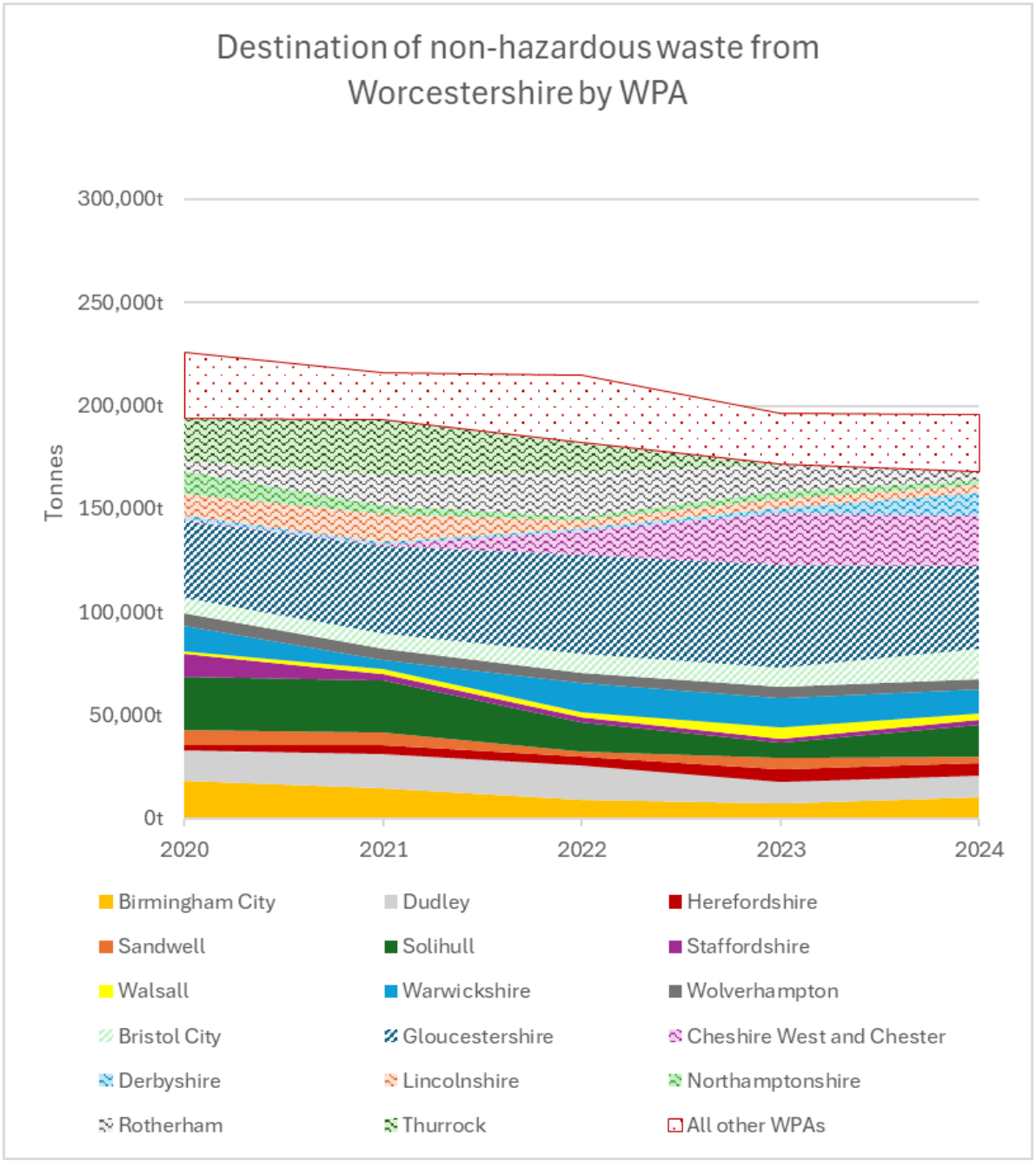


Table A4 - 13. Destination of non-hazardous waste from Worcestershire by WPA (excluding waste with an origin and destination of Worcestershire)

Destination	2020	2021	2022	2023	2024
Birmingham City	***18,466***	***14,590***	***9,397***	***6,985***	***10,045***
Dudley	***14,330***	***16,935***	***16,443***	***10,479***	***10,953***
Herefordshire	2,807	3,726	4,117	***6,167***	***5,862***
Sandwell	***7,363***	***6,524***	2,631	***5,980***	3,059
Solihull	***25,539***	***25,293***	***13,995***	***7,395***	***15,699***
Staffordshire	***11,260***	2,885	2,563	1,547	1,946
Walsall	1,296	2,346	2,602	***5,529***	3,331

Warwickshire	***12,225***	4,379	***13,842***	***14,136***	***11,718***
Wolverhampton	***5,971***	***5,457***	4,794	***5,426***	4,924
Bristol City	***7,665***	***7,322***	***9,491***	***9,295***	***14,622***
Gloucestershire	***37,683***	***42,620***	***48,033***	***49,761***	***40,255***
Cheshire West and Chester	587	647	***11,260***	***25,644***	***24,363***
Derbyshire	1,450	1,338	1,370	1,873	***11,287***
Lincolnshire	***10,610***	***13,422***	3,975	4,353	3,341
Northamptonshire	***10,887***	4,411	1,915	4,092	2,933
Rotherham	***5,018***	***14,821***	***21,040***	***12,948***	3,535
Thurrock	***20,986***	***26,745***	***14,621***	156	290
All other WPAs	31,852	22,319	32,777	24,850	27,413

Note: Figures shown in bold italics are above the thresholds set out in paragraph A2.182.

Movements of non-hazardous waste into Worcestershire

A4.24 Worcestershire received more than 5,000 tonnes of non-hazardous waste from seven WPAs in at least one year between 2020 and 2024. Six of these WPAs exceeded the threshold in at least three of the five years and, of these, three WPAs are in the West Midlands[138], two are in the South West[139] and one is in the East Midlands[140], reflecting the regional patterns seen in Figure A4 - 5 above.

A4.25 Between 21% and 30% of the imports of non-hazardous waste into Worcestershire were from Herefordshire. This was primarily household waste, with long-term arrangements for cross-boundary movements of this waste established in the Joint Municipal Waste Management Strategy for Herefordshire and Worcestershire 2004 – 2034.[141] More than 98% of non-hazardous waste from Herefordshire that is received in Worcestershire is received at three sites, as shown in Table A4 - 14 below. These sites are part of a joint municipal waste management contract which will run until at least 2029.

A4.26 Between 34% and 53% of non-hazardous waste imports received in Worcestershire was from WPAs where movements were consistently below the 5,000 tonnes annual threshold. Annual movements from 15 additional WPAs were more than 1,000 tonnes (but less than 5,000 tonnes) in at least one year between 2020 and 2024, and movements from a further 77 WPAs were less than 1,000 tonnes per annum.

Non-hazardous waste received at individual facilities in Worcestershire

A4.27 Table A4 - 14 shows non-hazardous waste received at sites in Worcestershire where waste originating in a WPA other than Worcestershire exceeded 5,000 tonnes in any year in the last 5 years.

[138] Herefordshire, Warwickshire, Sandwell

[139] Bristol City and Gloucestershire

[140] Nottingham City

[141] Waste Strategy | Worcestershire County Council

Table A4 - 14. Non-hazardous waste received at sites in Worcestershire (movements exceeding 5,000 tonnes per annum)

Worcestershire site	Originating WPA	2020	2021	2022	2023	2024
IMCR (International Metals and Cable Recycling), Long Marston (WWS028)	**Warwickshire**	Below threshold	**5,400**	Below threshold	Below threshold	Below threshold
Unimetals, Long Marston (WWS029)	**Sandwell**	**6,022**	Below threshold	**28,862**	**18,759**	Below threshold
Unimetals, Long Marston (WWS029)	**Bristol City**	**43,909**	**51,169**	**43,450**	**25,859**	Below threshold
Unimetals, Long Marston (WWS029)	**Nottingham City**	**28,608**	**15,116**	**12,171**	**8,960**	Below threshold
Unimetals, Long Marston (WWS029)	**Kingston Upon Hull City**	Below threshold	Below threshold	Below threshold	**6,914**	Below threshold
MRW (Midlands Reclamation and Waste) Limited, Long Marston (WWS030)	**Warwickshire**	**18,063**	**17,587**	**10,449**	Below threshold	Below threshold
EnviRecover, Hartlebury (WWS041)	**Herefordshire**	**32,341**	**34,673**	**44,442**	**45,046**	**46,152**
Hill and Moor Landfill site, Wyre Piddle (WWS058)	**Herefordshire**	**14,314**	**13,139**	Below threshold	Below threshold	Below threshold
EnviroSort, Norton (WWS079)	**Herefordshire**	**20,367**	**19,031**	**18,683**	**18,428**	**18,118**

Note: This data uses the 'basic waste type' categories available in the WDI and is therefore not directly comparable to other data in this section.

A4.28 Where a site received non-hazardous waste from another WPA exceeding 5,000 tonnes in three of the last five years this is taken as an indication that there is the potential there to be a strategic reliance on the facility. This is the case for:

- Movements from Sandwell, Bristol City and Nottingham City to WWS029: Unimetals, Long Marston
- Movements from Warwickshire to WWS030: MRW (Midlands Reclamation and Waste) Limited, Long Marston
- Movements from Herefordshire to WWS041: EnviRecover, Hartlebury and WWS079: EnviroSort, Norton.

WWS029 Unimetals, Long Marston

A4.29 WWS029: Unimetals, Long Marston is a metal recycling and reprocessing facility. In 2023 the site had a calculated capacity of 126,254 tonnes per annum.[142] In every year from 2020 to 2024, more than 99.9% of the waste received at WWS029: Unimetals, Long Marston was from outside of Worcestershire. The facility managed non-hazardous and hazardous waste.

A4.30 Between 2020 and 2024, the site received more than 5,000 tonnes from Sandwell, Bristol City and Nottingham City in at least three of the five years:

- Non-hazardous waste received from Sandwell was equivalent to between 5% and 23% of the site's calculated capacity,
- Non-hazardous waste received from Bristol City was equivalent to between 20% and 41% of the site's calculated capacity,
- Non-hazardous waste received from Nottingham City was equivalent to between 7% and 23% of the site capacity.

A4.31 Waste received from Kingston upon Hull was only above the 5,000 tonne threshold for a single year and was equivalent to 5% of the site's calculated capacity. Where the highest annual amount received at the facility from the WPA is less than 10% of the 5-year peak capacity of the site, the WNA does not consider these movements to be a strategic matter for consideration in developing the Waste Plan unless the other WPA provides evidence otherwise.

WWS030 MRW (Midlands Reclamation and Waste) Limited, Long Marston

A4.32 WWS030: MRW (Midlands Reclamation and Waste) Limited, Long Marston is a storage and transfer facility. In 2023 the site had a calculated capacity of 25,110 tonnes per annum.[143] In every year from 2020 to 2024, all of the waste managed at the site was from Warwickshire.

WWS041 EnviRecover, Hartlebury

A4.33 WWS041: EnviRecover, Hartlebury is an energy from waste facility. In 2023, the site had a calculated capacity of 84,958 tonnes per annum.[144] Between 2020 and 2024, between 15% and 21% of the waste received at the facility was from Herefordshire, with the rest being from Worcestershire.

A4.34 It is likely that movements of non-hazardous waste from Herefordshire to this site will continue until at least 2029 under the existing contractual arrangements. It is not yet known whether such arrangements will continue for the life of the forthcoming Worcestershire Waste Plan, although Herefordshire Council and Worcestershire County Council being shared stakeholders for the EnviRecover facility make this a reasonable likelihood.

[142] Total site capacity for all waste types, based on the 5-year peak.

[143] Total site capacity for all waste types, based on the 5-year peak.

[144] Total site capacity for all waste types, based on the 5-year peak.

WWS058 Hill and Moor Landfill Site, Wyre Piddle

A4.35 WWS058: Hill and Moor Landfill Site, Wyre Piddle is a landfill, composting and IBA processing facility with a household waste site. Waste from Herefordshire was received at Hill and Moor Landfill site until 2021, but has not been received since due to a commitment to zero landfill targets by Herefordshire Council.

WWS079 EnviroSort, Norton

A4.36 WWS079: EnviroSort, Norton is a MRF managing municipal waste from Herefordshire and Worcestershire. In 2023, the site had a calculated capacity of 84,958 tonnes per annum.[145] Between 2020 and 2024, non-hazardous waste received from Herefordshire was equivalent to between 21% and 24% of the site's calculated capacity.

A4.37 It is likely that movements of non-hazardous waste from Herefordshire to this site will continue until at least 2029 under the existing contractual arrangements. It is not yet known whether such arrangements will continue for the life of the forthcoming Worcestershire Waste Plan.

Movements of non-hazardous waste originating in Worcestershire

A4.38 As shown Figure A4 - 9 and Table A4 - 13 above, more than 5,000 tonnes of non-hazardous waste from Worcestershire was received by 17 WPAs in at least one year between 2020 and 2024. These 17 WPAs accounted for 85% to 90% of the non-hazardous waste originating in Worcestershire but managed elsewhere. Of these, 11 WPAs received more than 5,000 tonnes of non-hazardous waste from Worcestershire in at least three of the last five years: six of these WPAs are in the West Midlands, two are in the South West and the other three are elsewhere in England.

A4.39 No sites in Herefordshire received more than 5,000 tonnes of non-hazardous waste from Worcestershire in any year during the five-year period.

Non-hazardous waste from Worcestershire received at individual facilities outside of Worcestershire

A4.40 Table A4 - 15 shows non-hazardous waste originating in Worcestershire received at facilities in another WPA, where annual movements exceeded 5,000 tonnes in any year in the last 5 years.

Table A4 - 15. Non-hazardous waste from Worcestershire received at sites outside of Worcestershire (movements exceeding 5,000 tonnes)

Receiving WPA	Receiving site (as referred to in WDI)	2020	2021	2022	2023	2024
Birmingham City	Minworth S T W (40061)	**6,917**	**5,448**	Below threshold	**6,154**	**8,011**
Dudley	Himley Quarry Landfill EPR/BV7265IS	**5,382**	Below threshold	**6,217**	Below threshold	Below threshold
Dudley	Shakespeares M R S (46019)	Below threshold	Below threshold	**7,371**	**5,809**	Below threshold

[145] Based on the 5-year peak.

Receiving WPA	Receiving site (as referred to in WDI)	2020	2021	2022	2023	2024
Solihull	Meriden Quarry Landfill Site Area G (402326)	**24,316**	**24,326**	Below threshold	Below threshold	Below threshold
Solihull	Meriden Quarry (400769)	Below threshold	Below threshold	**13,607**	**7,072**	**15,410**
Staffordshire	Roundhill Anaerobic Digestion Plant EPR/LP3334DC	**10,924**	Below threshold	Below threshold	Below threshold	Below threshold
Warwickshire	Coleshill Food Waste Anaerobic Digestion Plant BP3537VX	**10,120**	Below threshold	Below threshold	Below threshold	Below threshold
Warwickshire	Bubbenhall Landfill Site BW0037IA	Below threshold	Below threshold	**5,729**	**5,525**	Below threshold
Wolverhampton	Neachells Lane Transfer Station 42805	**5,910**	**5,324**	Below threshold	**5,335**	Below threshold
Bristol City	Sims Avonmouth EPR/PP3099FM CP3632WP	Below threshold	**5,397**	**7,049**	**5,753**	**6,118**
Gloucestershire	Toddington Treatment Centre - EPR/GP3635JY	**5,938**	Below threshold	**5,569**	**5,400**	Below threshold
Gloucestershire	Budget Skip Hire 104587	Below threshold	Below threshold	**11,050**	Below threshold	Below threshold
Gloucestershire	Wingmoor Farm EPR/BU3671IY	Below threshold	Below threshold	**10,056**	Below threshold	Below threshold
Gloucestershire	Wingmoor Quarry Landfill Site YP3439SM	Below threshold	Below threshold	Below threshold	**11,865**	**11,409**
Gloucestershire	Netheridge Sewerage Treatment Plant EPR/EP3132WV	Below threshold	Below threshold	**5,197**	Below threshold	**5,071**
Cheshire West and Chester	Manisty Wharf 100575	Below threshold	Below threshold	Below threshold	Below threshold	**23,998**
Derbyshire	The Midlands Urban Mine EPR/MP3430AM	Below threshold	Below threshold	Below threshold	Below threshold	**8,792**
Lincolnshire	P M K Recycling	**10,324**	Below threshold	**13,193**	Below threshold	Below threshold
Northamptonshire	Recycle Force Ltd 101437	**5,205**	Below threshold	Below threshold	Below threshold	Below threshold

Receiving WPA	Receiving site (as referred to in WDI)	2020	2021	2022	2023	2024
Rotherham	Templeborough Biomass Power Plant NP3805BY	Below threshold	**12,720**	**18,863**	**11,741**	Below threshold

Note: This data uses the 'basic waste type' categories available in the WDI and is therefore not directly comparable to other data in this section.

A4.41 Where a site received waste more than 5,000 tonnes from Worcestershire in three of the last five years this is taken as an indication that there is the potential for Worcestershire to have a strategic reliance on the facility. This is the case for:

- Minworth Sewage Treatment Works (Birmingham City): A biological treatment facility for sludges, effluent and other waste.
- A&A Recycling Service Ltd, Meriden Quarry (Solihull): A physical treatment facility recycling wood waste, ferrous metal and scrap.
- Neachells Lane Transfer Station (Wolverhampton): A transfer station for street sweepings and other municipal waste.
- Sims Avonmouth (Bristol City): This facility is run by the same operator as WWS029: Unimetals, Long Marston, which may indicate an ongoing operational relationship between the two sites.
- Toddington Treatment Centre (Gloucestershire): A biological treatment facility for sludges, effluent and other waste.
- Templeborough Biomass Power Plant (Rotherham): Mechanical treatment of wood wastes.

A4.42 The receiving WPAs have been contacted about these potentially strategic movements alongside consultation on the baseline WNA for a view on whether they consider there to be any strategic issues that may need to be taken into account in the development of the Worcestershire Waste Plan. It should be noted that there is a current capacity gap in Worcestershire for green waste, sewage waste, and sludges, which is likely to be a factor in this pattern of cross-boundary movements.

Hazardous waste

Overview

A4.43 Table A4 - 16 shows the balance of imports and exports of hazardous waste to and from Worcestershire for the last 5 years. Table A4 - 17 shows imports and exports of inert waste to and from Worcestershire as a % of waste arising/managed in Worcestershire to provide context about the scale and strategic importance of those movements

Table A4 - 16. Balance of imports and exports of hazardous waste to and from Worcestershire (2020-2024)

	2020	2021	2022	2023	2024
Total imports	60,479	73,098	76,071	113,303	100,343
Total exports	41,756	46,912	45,322	51,497	51,436
Balance	18,723	26,186	30,749	61,806	48,907
W'shire position	Net importer	Net importer	Net importer	Net importer	Net importer

Table A4 - 17. Imports and exports of hazardous waste to and from Worcestershire as a % of waste arising/managed (2020-2024)

	2020	2021	2022	2023	2024
% of waste managed in W'shire that originated elsewhere	83%	89%	87%	88%	86%
% of waste arising in W'shire that is managed elsewhere	79%	86%	82%	81%	80%

A4.44 Worcestershire was a net importer of hazardous waste in every year between 2020 and 2024. During this time more than 79% of the hazardous waste arising in Worcestershire was managed in another WPA and more than 83% of the hazardous waste managed in Worcestershire originated in another WPA. This scale of imports and exports of hazardous waste in percentage terms is likely to reflect the highly specialised nature of hazardous waste management facilities, and the normal operation of the market in addressing the need for specialist management of hazardous waste. Whilst specific movements and the potential for reliance on individual facilities is considered below, the WNA's baseline assessment shows that Worcestershire does not currently have a capacity gap for the management of hazardous waste.

Regional patterns of waste movements

A4.45 Figure A4 - 10, Table A4 - 18 Figure A4 - 11 and Table A4 - 19 show the movements of hazardous waste to and from Worcestershire in 2023 by originating or receiving region.

Figure A4 - 10. Origin of hazardous waste received in Worcestershire by region (excluding waste with an origin and destination of Worcestershire)

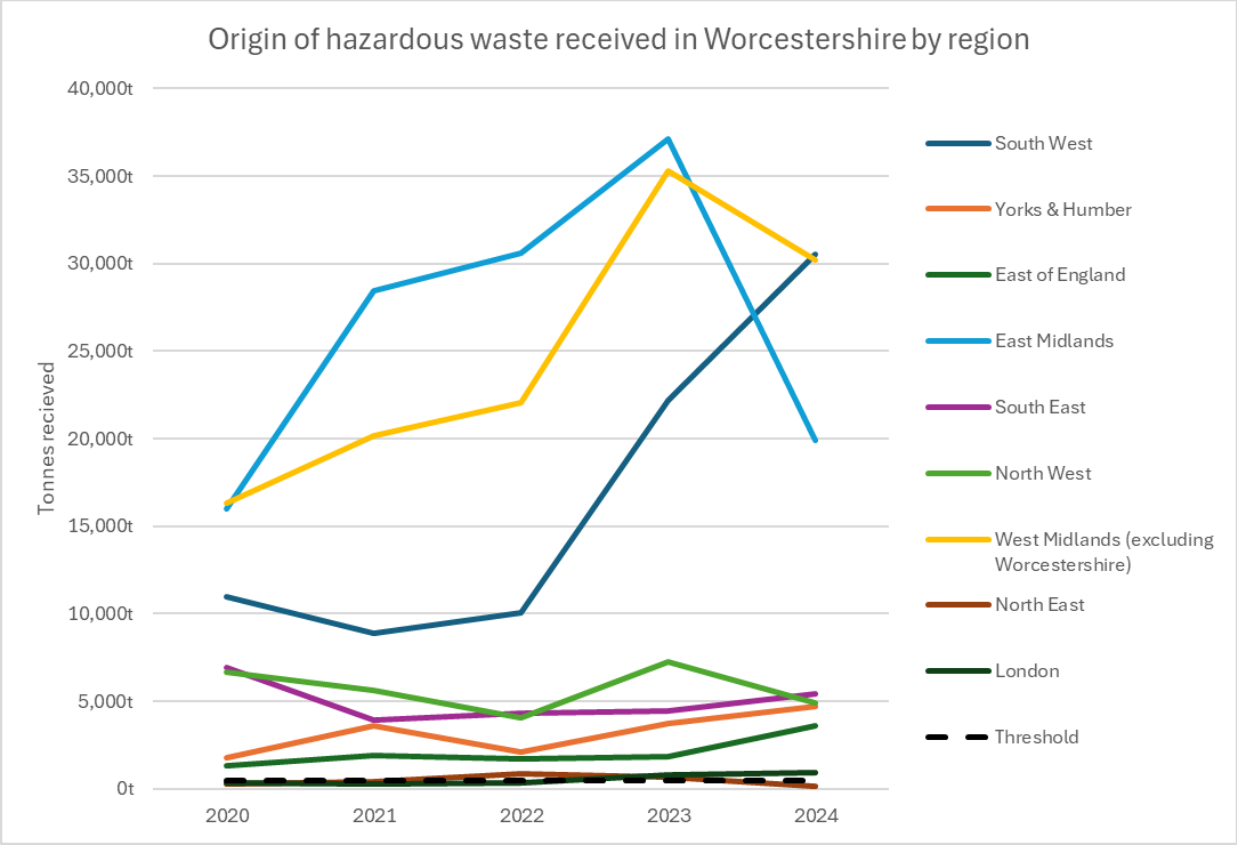


Table A4 - 18. Origin of hazardous waste received in Worcestershire by region excluding waste with an origin and destination of Worcestershire)

	2020	2021	2022	2023	2024
South West	***10,953***	***8,881***	***10,037***	***22,167***	***30,555***
Yorks & Humber	***1,759***	***3,569***	***2,088***	***3,743***	***4,689***
East of England	***1,286***	***1,881***	***1,708***	***1,809***	***3,613***
East Midlands	***15,983***	***28,442***	***30,599***	***37,140***	***19,876***
South East	***6,935***	***3,941***	***4,312***	***4,465***	***5,412***
North West	***6,649***	***5,592***	***4,067***	***7,221***	***4,914***
West Midlands (excluding Worcestershire)	***16,323***	***20,155***	***22,075***	***35,315***	***30,193***
North East	282	392	***877***	***668***	154
London	309	245	308	***775***	***937***
Total imports	**60,479**	**73,098**	**76,071**	**113,303**	**100,343**

Note: Regional figures shown in ***bold italics*** are above the thresholds set out in paragraph A2.182.

Figure A4 - 11. Destination of hazardous waste from Worcestershire by region (excluding waste with an origin and destination of Worcestershire)

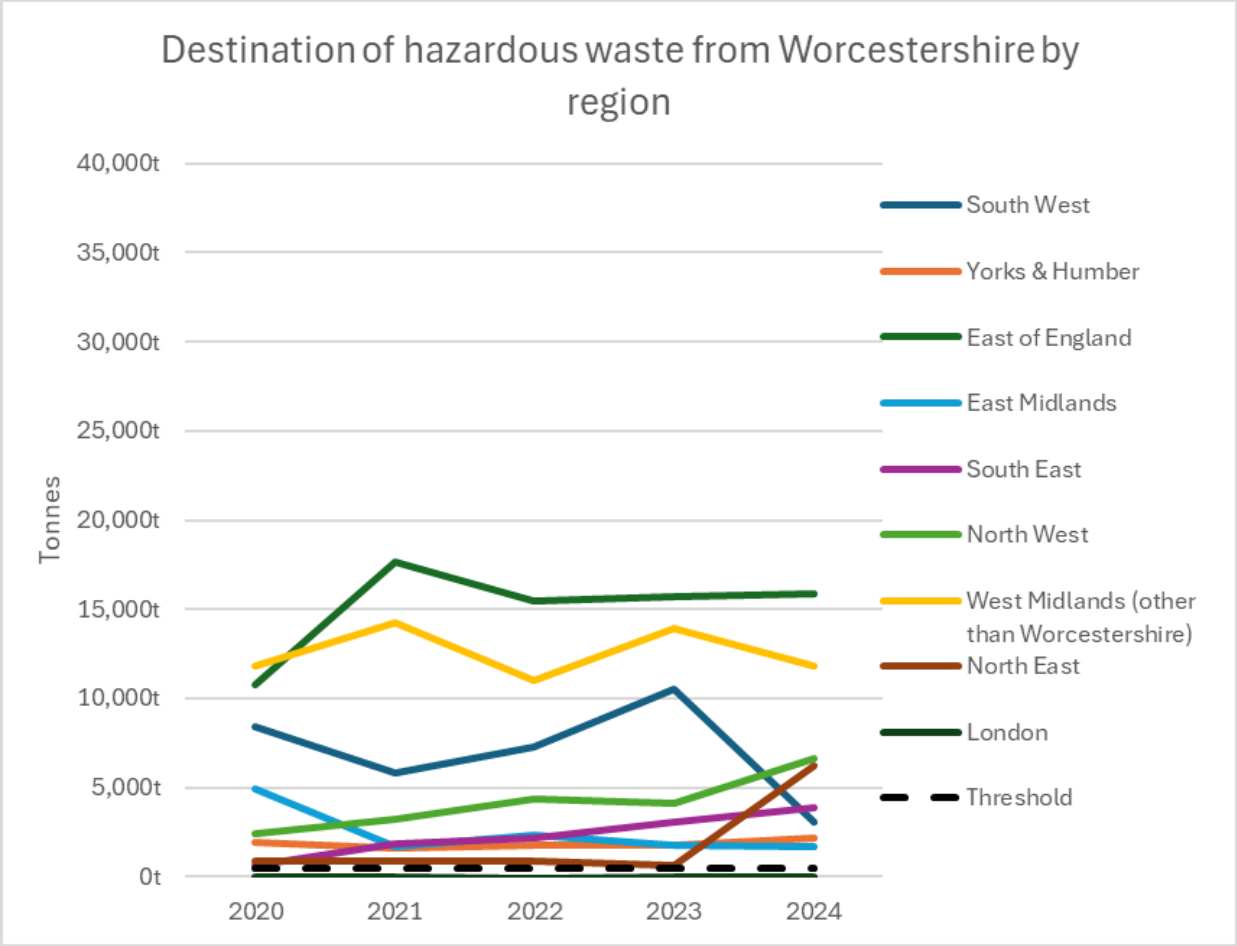


Table A4 - 19. Destination of hazardous waste from Worcestershire by region (excluding waste with an origin and destination of Worcestershire)

	2020	2021	2022	2023	2024
South West	***8,394***	***5,789***	***7,302***	***10,498***	***3,101***
Yorks & Humber	***1,906***	***1,583***	***1,737***	***1,789***	***2,174***
East of England	***10,757***	***17,616***	***15,427***	***15,683***	***15,897***
East Midlands	***4,896***	***1,693***	***2,355***	***1,739***	***1,662***
South East	***649***	***1,853***	***2,211***	***3,058***	***3,904***
North West	***2,452***	***3,249***	***4,356***	***4,136***	***6,664***
West Midlands (excluding Worcestershire)	***11,844***	***14,213***	***11,040***	***13,948***	***11,823***
North East	***851***	***912***	***894***	***642***	***6,207***
London	8	4	0	4	4
Total Exports	**41,757**	**46,912**	**45,322**	**51,497**	**51,436**

Note: Regional figures shown in ***bold italics*** are above the thresholds set out in paragraph A2.182.

A4.46 Most of the hazardous waste movements into Worcestershire are from WPAs in the West Midlands, South West or East Midlands. Together they account for between 72% and 80% of all hazardous waste imports into Worcestershire.

A4.47 Most of the hazardous waste movements from Worcestershire are to WPAs in the West Midlands, South West or East of England. Together they account for between 74% and 80% of all hazardous waste exports from Worcestershire.

A4.48 More hazardous waste was received into Worcestershire than exported out of Worcestershire for every region except the East of England, Yorkshire and Humber, and North East.

Patterns of waste movement by WPAs

A4.49 Worcestershire received more than 500 tonnes of hazardous waste from 39 WPA in at least one of the five years and sent more than 500 tonnes of hazardous waste to 24 WPAs in at least one of the five years. Given the number of movements, this data cannot be shown clearly on one graph. To focus on the movements most likely to be strategically significant, Figure A4 - 12, Figure A4 - 13, Table A4 - 20 and Table A4 - 22 show the movements of hazardous waste by WPA where they exceed 2,000 tonnes in at least one of the five years. Table A4 - 21 and Table A4 - 23 show data for the WPAs where movements exceed 500 tonnes in at least one of the five years, but are less than 2,000 tonnes.

A4.50 The graphs show WPAs in the West Midlands as solid colours, WPAs in the South West are shown with diagonal fill, and WPAs in other regions are shown in zig-zag fill. Movements from all WPAs which were below 2,000 tonnes are combined (not split by region) and shown in dotted fill.

Figure A4 - 12. Origin of hazardous waste received at facilities in Worcestershire by region (excluding waste with an origin of Worcestershire) where annual movements exceed 2,000 tonnes in at least one of the last five years

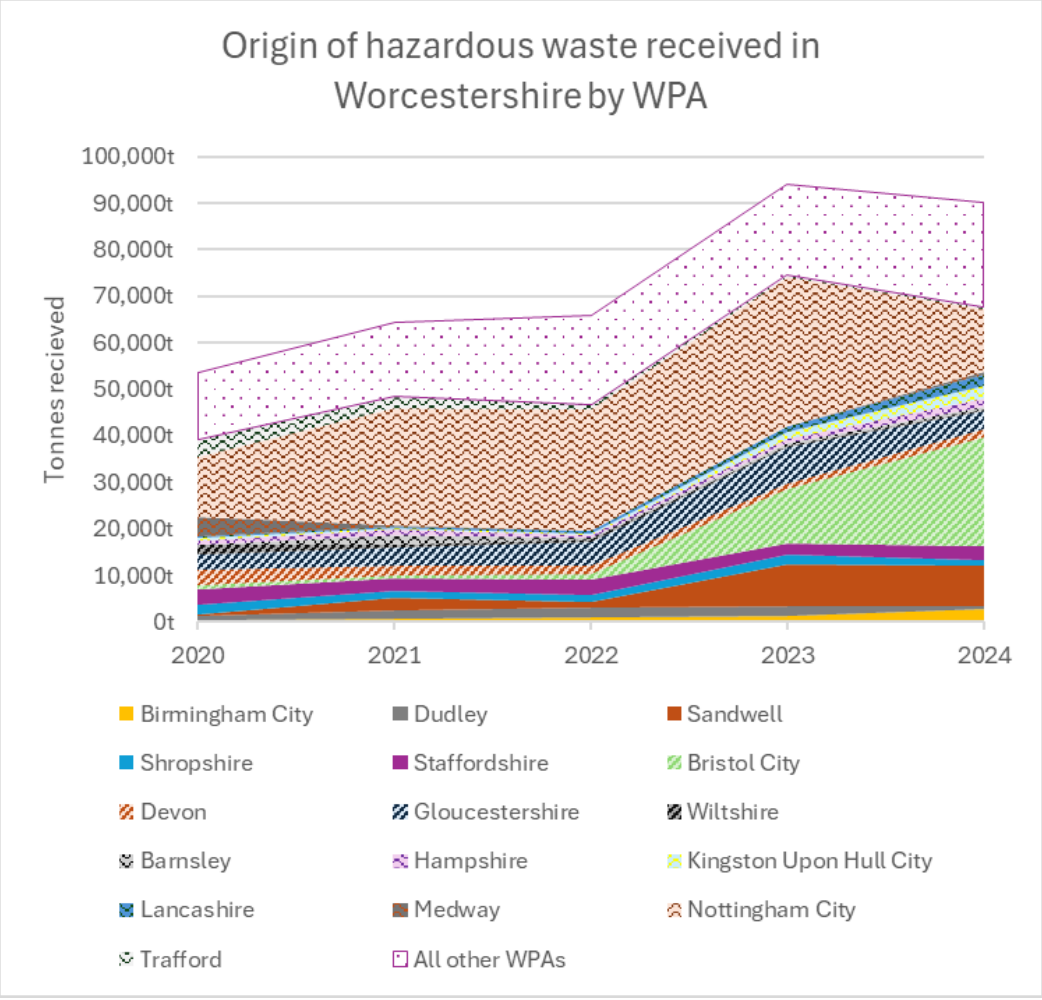


Table A4 - 20. Origin of non-hazardous waste received at facilities in Worcestershire by WPA (excluding waste with an origin of Worcestershire) where annual movements exceed 2,000 tonnes in at least one of the last five years

Origin	2020	2021	2022	2023	2024
Birmingham City	***583***	***614***	***980***	***1,456***	***2,783***
Dudley	604	***1,914***	***2,080***	***1,975***	***526***
Sandwell	341	***2,738***	***1,135***	***9,134***	***8,704***
Shropshire	***2,062***	***1,347***	***1,591***	***1,980***	***1,325***
Staffordshire	***3,491***	***2,722***	***3,405***	***2,427***	***2,918***
Bristol City	***741***	***819***	***1,155***	***11,614***	***23,544***
Devon	***3,388***	***2,082***	***1,762***	***1,226***	***1,665***
Gloucestershire	***3,447***	***3,880***	***5,220***	***7,672***	***3,896***
Wiltshire	***2,046***	***580***	398	453	315
Barnsley	0	***2,110***	290	***514***	443
Hampshire	***915***	***1,052***	***762***	***854***	***2,082***
Kingston Upon Hull City	363	352	158	***1,592***	***2,543***
Lancashire	284	280	***649***	***1,182***	***2,482***
Medway	***4,341***	295	144	140	438
Nottingham City	***12,980***	***25,144***	***25,987***	***31,827***	***13,691***
Trafford	***3,630***	***2,579***	***1,011***	***511***	198

Note: Figures shown in bold italics are above the thresholds set out in paragraph A2.182.

Table A4 - 21. Origin of non-hazardous waste received at facilities in Worcestershire by WPA (excluding waste with an origin of Worcestershire) where annual movements exceed 500 tonnes in at least one of the last five years but are less than 2,000 tonnes

Origin	2020	2021	2022	2023	2024
Barking and Dagenham	0	48	0	337	***570***
Bedford	104	294	265	320	***567***
Cheshire West and Chester	***873***	222	417	92	20
Coventry	191	120	167	365	***717***
Derbyshire	***602***	***679***	***1,052***	***1,000***	***1,689***
Essex	132	136	***659***	343	345
Herefordshire	***1,194***	***1,028***	***1,133***	***973***	***524***
Leicestershire	***510***	378	443	***771***	***1,172***
Lincolnshire	448	***540***	***879***	***1,421***	***870***
Luton	5	4	13	25	***540***
Manchester	315	***681***	304	371	389
Norfolk	276	***514***	354	222	***1,031***
Northamptonshire	***712***	***759***	***1,285***	***1,106***	***1,412***
Nottinghamshire	317	398	***544***	***529***	***728***
Oxfordshire	***913***	***1,307***	***1,630***	***1,660***	***1,210***
Plymouth	313	***605***	***568***	145	162
Sheffield	***729***	469	480	288	430
Stockport	***1,040***	***512***	233	122	411
Suffolk	***548***	329	117	128	217
Telford and Wrekin	355	***504***	492	465	459
Walsall	368	256	317	***575***	***676***
Warwickshire	***1,192***	***1,130***	***1,766***	***1,221***	***1,991***
Wolverhampton	84	10	36	281	***919***
All other WPAs	**3,284**	**5,000**	**6,067**	**6,585**	**5,509**

Note: Figures shown in bold italics are above the thresholds set out in paragraph A2.182.

Figure A4 - 13. Destination of non-hazardous waste from Worcestershire by WPA (excluding waste with an origin and destination of Worcestershire) where annual movements exceed 2,000 tonnes in at least one of the last five years

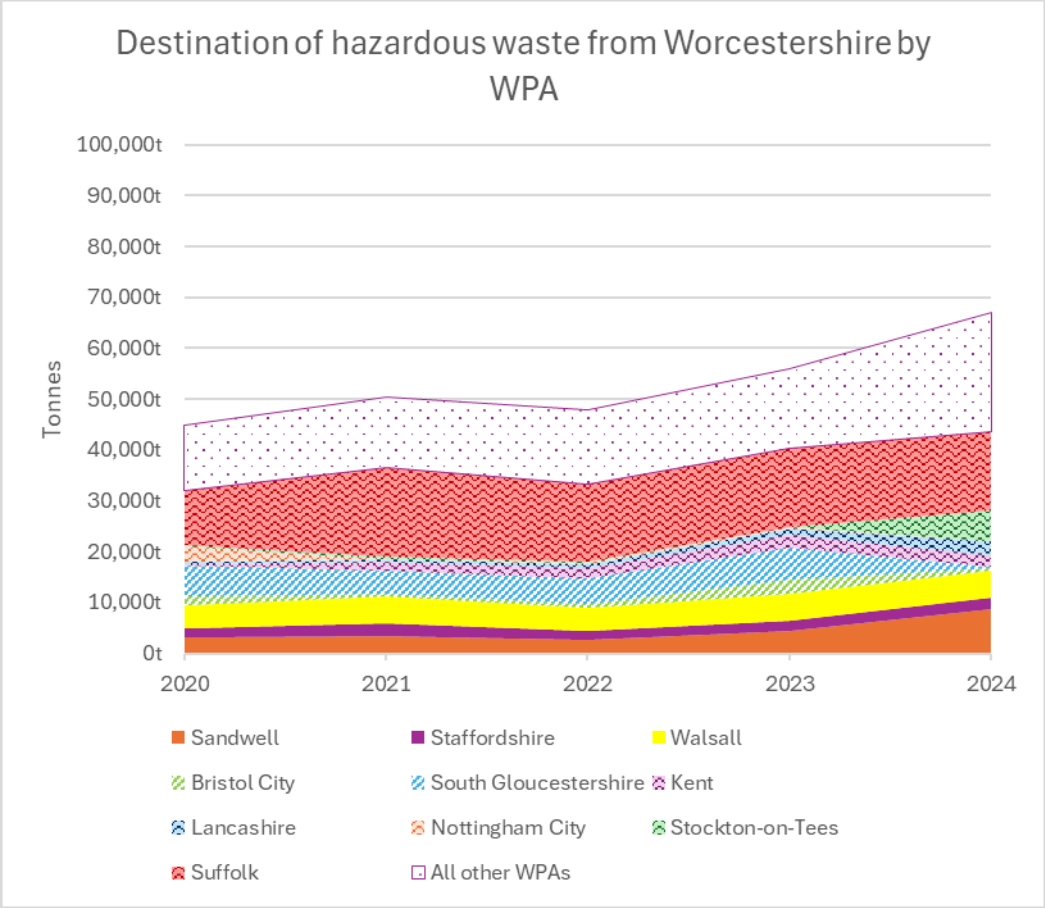


Table A4 - 22. Destination of non-hazardous waste from Worcestershire by WPA (excluding waste with an origin and destination of Worcestershire) where annual movements exceed 2,000 tonnes in at least one of the last five years

Destination	2020	2021	2022	2023	2024
Sandwell	***3,100***	***3,438***	***2,640***	***4,376***	***8,749***
Staffordshire	***1,710***	***2,557***	***1,712***	***2,165***	***2,130***
Walsall	***4,700***	***5,195***	***4,721***	***5,286***	***5,292***
Bristol City	***1,598***	***613***	***749***	***2,752***	***623***
South Gloucestershire	***6,238***	***4,441***	***4,888***	***6,238***	115
Kent	219	***1,679***	***1,963***	***2,517***	***2,408***
Lancashire	448	***715***	***870***	***1,240***	***2,713***
Nottingham City	***2,942***	0	252	178	103
Stockton-on-Tees	472	492	297	129	***5,872***
Suffolk	***10,680***	***17,473***	***15,292***	***15,518***	***15,670***

Note: Figures shown in bold italics are above the thresholds set out in paragraph A2.182.

Table A4 - 23. Destination of non-hazardous waste from Worcestershire by WPA (excluding waste with an origin and destination of Worcestershire) where annual movements exceed 500 tonnes in at least one of the last five years but are less than 2,000 tonnes

Destination	2020	2021	2022	2023	2024
Cheshire East	48	49	79	294	***548***
Cheshire West and Chester	***528***	224	***926***	387	***1,137***
Derbyshire	***991***	***1,193***	***1,150***	***910***	***790***
Dudley	***499***	***614***	***584***	***605***	***1,046***
Gloucestershire	***505***	***647***	***1,369***	***1,126***	***1,619***
Hampshire	286	49	136	456	***1,398***
Herefordshire	***513***	***737***	463	***533***	***625***
Kingston Upon Hull City	***1,337***	***1,092***	***1,153***	***731***	***1,336***
Liverpool	257	***1,140***	***756***	***861***	***673***
Northamptonshire	172	100	***582***	143	158
Northumberland	378	349	***585***	445	282
Nottinghamshire	379	185	186	321	***501***
Salford	***937***	***861***	***1,278***	***1,016***	***1,123***
Warwickshire	479	***716***	495	429	398
All other WPAs	**2,334**	**2,351**	**2,196**	**2,843**	**2,878**

Note: Figures shown in bold italics are above the thresholds set out in paragraph A2.182.

Movements of hazardous waste into Worcestershire

A4.51 Worcestershire received more than 500 tonnes of hazardous waste from 39 WPAs in at least one year between 2020 and 2024. Of these, only 20 exceeded the threshold in three or more of the five years.

A4.52 Imports of hazardous waste from Nottingham City accounted for between 15% and 39% of all hazardous waste imports into Worcestershire. Annual imports of hazardous waste from most other WPAs are small with only seven other authorities sending quantities of waste accounting for more than 5% of total hazardous waste imports into Worcestershire in any year (Sandwell, Staffordshire, Bristol City, Devon, Gloucestershire, Medway, and Trafford).

Hazardous waste received at individual facilities in Worcestershire

A4.53 Table A4 - 24 shows hazardous waste received at sites in Worcestershire where waste originating in another WPA exceeded 500 tonnes in at least 3 of the last 5 years. **Appendix 9** shows hazardous waste received at sites in Worcestershire where waste originating in another WPA exceeded 500 tonnes in any year in the last 5 years.

Table A4 - 24. Hazardous waste received at sites in Worcestershire (movements exceeding 500 tonnes per annum in at least three of the last five years)

Worcestershire site	Originating WPA	2020	2021	2022	2023	2024
Unimetals, Long Marston (WWS029)	**Sandwell**	Below threshold	**2,114**	**780**	**8,503**	**8,221**
Unimetals, Long Marston (WWS029)	**Nottingham City**	**12,864**	**24,955**	**25,639**	**48,167**	**13,526**
Hartlebury Landfill Site, Hartlebury (WWS038)	**Shropshire**	**1,357**	**844**	**564**	**863**	**637**
Hartlebury Landfill Site, Hartlebury (WWS038)	**Gloucestershire**	**1,230**	**1,360**	**2,384**	**4,912**	**1,853**
Chloros Environmental, Hartlebury (WWS040)	**Devon**	Below threshold	Below threshold	**718**	**550**	**542**
Chloros Environmental, Hartlebury (WWS040)	**Northamptonshire**	Below threshold	Below threshold	**737**	**584**	**808**
Stourport Oil Treatment Plant, Stourport (WWS050)	**Devon**	**2,594**	**1,632**	**854**	Below threshold	**839**
Stourport Oil Treatment Plant, Stourport (WWS050)	**Trafford**	**3,630**	**2,579**	**1,011**	**511**	Below threshold
Stourport Oil Treatment Plant, Stourport (WWS050)	**Oxfordshire**	Below threshold	**786**	**704**	**1,041**	**773**
Cleansing Service Group Ltd, Worcester (WWS078	**Gloucestershire**	**1,109**	**1,225**	**1,986**	**1,720**	**841**
Cleansing Service Group Ltd, Worcester (WWS078)	**Herefordshire**	**613**	Below threshold	**739**	**694**	Below threshold
Vision Recycling UK Ltd (120204)	**Dudley**	Below threshold	**1,708**	**1,933**	**1,757**	Site closed

Note: This data uses the 'basic waste type' categories available in the WDI and is therefore not directly comparable to other data in this section.

A4.54 Ten individual facilities in Worcestershire received more than 500 tonnes of hazardous waste from other WPAs at least one year in the last five years. In total, 32 WPA sent more than 500 tonnes of hazardous waste to any individual facility in Worcestershire in at least one year in the last five years. However, only 10 WPAs sent more than 500 tonnes in at least 3 years of the last 5 years across only six individual facilities.

WWS029 Unimetals, Long Marston

A4.55 WWS029: Unimetals, Long Marston is a metal recycling and reprocessing facility. In 2023 the site had a calculated capacity of 126,254 tonnes per annum.[146] In every year from 2020 to 2024, more than 99.9% of the waste received at WWS029: Unimetals, Long Marston was from outside of Worcestershire. The facility manages both non-hazardous and hazardous waste.

A4.56 Between 2020 and 2024, the site received more than 500 tonnes of hazardous waste from Sandwell and Nottingham City in at least three of the five years:

- Hazardous waste received from Sandwell was equivalent to between 1% and 7% of the site's calculated capacity.
- Hazardous waste received from Nottingham City was equivalent to between 10% and 38% of the site's calculated capacity.

A4.57 The site received more than 500 tonnes of hazardous waste from five other WPAs in one or two of the last five years. These movements were all less than 3% of the capacity of the sites, except for hazardous waste from Bristol City received in 2023 and 2024 which was equivalent to between 8% and 18% of the site's calculated capacity.

WWS038: Hartlebury Landfill Site, Hartlebury

A4.58 WWS038: Hartlebury Landfill Site, Hartlebury is a landfill site, which primarily manages inert waste and includes an SNRHW cell for asbestos and similar hazardous materials. In 2023 the calculated operational capacity was 72,207 tonnes per annum[147] with 630,411 m3 remaining void space.

A4.59 Between 2020 and 2024, the site received more than 500 tonnes of hazardous waste from Shropshire and Gloucestershire in at least three of the five years:

- Hazardous waste received from Shropshire was equivalent to less than 2% of the calculated annual operational capacity of the site.
- Hazardous waste received from Gloucestershire was equivalent to less than 3% of the calculated annual operational capacity of the site.

A4.60 The site received more than 500 tonnes of hazardous waste from one other WPA in one year of the last five.

WWS040: Chloros Environmental, Hartlebury

A4.61 WWS040: Chloros Environmental, Hartlebury is a storage and transfer facility. In 2023 the site had a calculated capacity of 15,721 tonnes per annum.

A4.62 Between 2020 and 2024, the site received more than 500 tonnes of hazardous waste from Devon and Northamptonshire in at least three of the five years:

- Hazardous waste received from Devon was equivalent to between 3% and 5% of the site's calculated capacity.

[146] For all waste types managed at the site, based on the 5-year peak.

[147] For all waste types managed at the site, based on the 5-year peak.

- Hazardous waste received from Northampton was equivalent to between 4% and 5% of the site's calculated capacity.

A4.63 The site received more than 500 tonnes of hazardous waste from five other WPAs in one or two of the last five years. These movements were all less than 5% of the capacity of the site, except for hazardous waste from Hampshire which was equivalent to 11% of capacity in 2024.

WWS050: Stourport Oil Treatment Plant

A4.64 WWS050: Stourport Oil Treatment Plant is a storage and transfer facility. In 2023 the site had a calculated capacity of 48,209 tonnes per annum. In every year from 2020 to 2024, more than 93% of the waste received at WWS050: Stourport Oil Treatment Plant was from outside of Worcestershire.

A4.65 Between 2020 and 2024, the site received more than 500 tonnes of hazardous waste from Devon, Trafford and Oxfordshire:

- Hazardous waste received from Devon was equivalent to between 2% and 5% of the site's calculated capacity.
- Hazardous waste received from Trafford was equivalent to between 1% and 8% of the site's calculated capacity.
- Hazardous waste received from Oxfordshire was equivalent to between 1% and 2% of the site's calculated capacity.

A4.66 The site received more than 500 tonnes of hazardous waste from seven other WPAs in one or two of the last five years. These movements were all less than 5% of the capacity of the site, except for hazardous waste from Medway which was equivalent to 9% of capacity in 2020 but has not been above 500 tonnes per annum since.

WWS078: Cleansing Service Group Ltd, Worcester

A4.67 WWS078: Cleansing Service Group Ltd, Worcester is a storage and transfer facility. In 2023 the site had a calculated capacity of 37,655 tonnes per annum.

A4.68 Between 2020 and 2024, the site received more than 500 tonnes of hazardous waste from Herefordshire and Gloucestershire:

- Hazardous waste received from Gloucestershire was equivalent to between 2% and 5% of the site capacity.
- Hazardous waste received from Herefordshire was equivalent to 2% of the site capacity.

A4.69 The site received more than 500 tonnes of hazardous waste from two other WPAs in one or two of the last five years. These movements were all less than 2% of the capacity of the site.

Other sites

A4.70 WWS066: Equilibrium Chemical Services Ltd, Welland received more than 500 tonnes of hazardous waste from Manchester and from Stockport in one of the last five years.

A4.71 WWS061: R&C Metals, Honeybourne, received more than 500 tonnes of hazardous waste from Gloucestershire in one of the last five years.

A4.72 In addition, Vision Recycling UK Ltd received more than 500 tonnes from Dudley for three of the last five years. However, this site is now closed and capacity has been permanently lost.

A4.73 There is only one year of data for WWS020: Redditch Clinical Waste Treatment Facility, Redditch (2024). The site has a calculated capacity of 5,813 tonnes per annum[148]. In 2024 waste from Worcestershire was equivalent to 29% of the site capacity. In 2024, the site received more than 500 tonnes of hazardous waste from Bedford and Luton:

- Hazardous waste received from Bedford was equivalent to 9% of the site's calculated capacity.
- Hazardous waste received from Luton was equivalent to 9% of the site's calculated capacity.

Movements of hazardous waste originating in Worcestershire

A4.74 As shown in Figure A4 - 13, Table A4 - 22 and Table A4 - 23 above, more than 500 tonnes per annum of hazardous waste from Worcestershire was received in 24 WPAs in at least one year between 2020 and 2024. Of the WPAs exceeding the threshold, only 16 exceeded the threshold in three or more of the five years.

A4.75 Between 26% and 37% of hazardous waste exports from Worcestershire were to Suffolk.

Hazardous waste from Worcestershire received at individual facilities outside of Worcestershire

A4.76 Table A4 - 25 shows hazardous waste originating in Worcestershire received at facilities in another WPA, where annual movements exceeded 500 tonnes in at least 3 years of the last 5 years. **Appendix 9** shows hazardous waste originating in Worcestershire received at facilities in another WPA, where annual movements exceeded 500 tonnes in any year in the last 5 years.

[148] Data for this facility is only available for 2024 and is not included in the capacity calculations elsewhere.

Table A4 - 25. Hazardous waste from Worcestershire received at sites outside of Worcestershire (movements exceeding 500 tonnes in at least 3 of the last 5 years)

Receiving WPA	Receiving site (as referred to in WDI)	2020	2021	2022	2023	2024
Derbyshire	**Ilkeston Waste Treatment and Transfer Facility** EPR/AP3337SJ	**629**	**967**	**747**	**779**	**740**
Gloucestershire	**Wingmoor Farm** EPR/BU3671IY	Below threshold	**954**	**639**	**734**	Below threshold
Kent	**Sweeep Kuusakoski Ltd** - EPR/GP3498HQP3835CM	Below threshold	**1,324**	**1,693**	**1,810**	**1,983**
Kingston Upon Hull City	**Air Street Site** EPR/HP3398EQGP3935TZ	Below threshold	**871**	**791**	**567**	**576**
Salford	**CSG Lanstar (Cadishead)** EPR/BS1538IQ	**773**	**712**	**1,171**	**944**	**1,083**
Sandwell	**Bullock Street** EPR/ZP3537SL	**780**	**977**	**940**	**849**	**1,055**
Sandwell	**Wednesbury WM Resource Centre** EPR/XP3631SE	**544**	**564**	Below threshold	Below threshold	**614**
Sandwell	**Edwin Richards Quarry – Soil Treatment Centre**, EPR/HP3632RP/V003	Below threshold	**1,321**	**504**	**1,446**	**1,942**
South Gloucestershire	**Avonmouth Aggregate Production Facility** EPR/HP3638WW	**6,234**	**4,439**	**4,886**	**6,235**	Below threshold
Staffordshire	**Stoke Waste Treatment & Transfer Facility** EPR/LP3337ML	**735**	**1,069**	**1,001**	**564**	**610**
Suffolk	**Hollywell Waste Oil Treatment Facility** EPR/CB3906FNDP3438AF	**10,601**	**16,831**	**15,292**	**15,518**	**15,670**
Walsall	**Walsall Oil Treatment Plant** EPR/QP3137MM	**3,694**	**4,294**	**4,032**	**4,749**	**4,797**

Note: This data uses the 'basic waste type' categories available in the WDI and is therefore not directly comparable to other data in this section.

A4.77 Where a site received waste from Worcestershire exceeding 500 tonnes in three of the last five years, this is taken as an indication that there is the potential for Worcestershire to have a strategic reliance on the facility. This is the case for the following:

- Facilities primarily treating or recycling oils
  - Air Street Site (Kingston upon Hull City)
  - Stoke Waste Treatment & Transfer Facility (Staffordshire)
  - Hollywell Waste Oil Treatment Facility (Suffolk)
  - Walsall Oil Treatment Plant (Walsall)
- Facilities primarily treating or recycling other wastes
  - Ilkeston Waste Treatment and Transfer Facility (Derbyshire)
  - CSG Lanstar (Cadishead) (Salford)
  - Edwin Richards Quarry – Soil Treatment Centre (Sandwell)
  - Avonmouth Aggregate Production Facility (South Gloucestershire)
- Sorting and transfer
  - Sweeep Kuusakoski Ltd (Kent): WEEE waste
  - Bullock Street (Sandwell)
  - Wednesbury WM Resource Centre (Sandwell)
- Non-Hazardous Landfill with SNRHW
  - Wingmoor Farm (Gloucestershire)

A4.78 Between 36% and 49% of all hazardous waste movements from Worcestershire between 2020 and 2024 were to four facilities primarily treating or recycling oils. There is likely to be a relationship between WWS050: Stourport Oil Treatment Plant and these facilities primarily receiving waste oil from Worcestershire. Between 71% and 73% of these movements were to a single site in Suffolk. There is likely to be a relationship between these facilities and WWS050: Stourport Oil Treatment Plant. It should also be noted that more than 93% of the waste received by WWS050: Stourport Oil Treatment Plant between 2020 and 2024 was from WPAs other than Worcestershire.

A4.79 The receiving WPAs have been contacted about these potentially strategic movements alongside consultation on the baseline WNA for a view on whether they consider there to be any strategic issues that may need to be taken into account in the development of the Worcestershire Waste Plan.

Residual waste capacity as a strategic issue

A4.80 The West Midlands RTAB study “Resilience of Non-hazardous Residual Waste Management Capacity in the West Midlands: 29 July 2025” uses publicly available information and makes certain assumptions to derive ‘ball park’ estimates of the need for, and availability of, residual non-hazardous waste management capacity in the West Midlands to test four scenarios. It concludes that:

"All scenarios indicate that existing and under construction capacity (EfW + landfill) will be sufficient to manage the amount of residual waste arising in the West Midlands to at least 2040. However, this conclusion on capacity includes a heavy reliance on landfill. The amount of residual waste being managed by landfill by 2041 ranges between 23% and 54%... it should also be noted that this study focuses on residual waste management and therefore assumes that adequate infrastructure and measures to reduce residual waste through gains in recycling will be in place. Without this, the scale of residual waste may exceed that considered in the scenarios, placing increased, and undue, pressure on landfill and EfW capacity."

A4.81 In this study it is consider likely that additional residual waste capacity could be required in the West Midlands from 2041 and WPAs are encouraged to assess the need to replace retiring EfW capacity and to consider whether additional capacity may be required to "*drive down landfill reliance to ensure the Government's target of no more than 10% of municipal waste to landfill by 2035 is met. Given that the delivery of new residual waste infrastructure can take over a decade from concept to commissioning, action will be needed by the early 2030s at the latest to meet needs projected by 2041.*"

A4.82 The study recognises that "*EfW facilities and non-hazardous landfills may be considered strategic facilities as they typically manage waste arising in an area which extends beyond the local area within which they are located*" and that, "*in light of their greater catchments, Waste Planning Authorities may not necessarily need to plan for such facilities in their own areas and can instead rely on capacity in neighbouring areas and beyond. However, to ensure sufficient capacity exists it is important to assess how well such capacity is provided for over a wider area to ensure the needs of that area are generally met in accordance with the proximity principle as expected by national policy.*"

A4.83 This potentially strategic issue and the extent of any implications for Worcestershire's Waste Plan will be considered further in **Part B: Forecasting future waste arisings** and **Part C: Forecasting Capacity Needs**.

Summary: Strategic movements of waste

A4.84 There are potential strategic issue to consider between Worcestershire and four WPAs in relation to **inert waste**. In particular:

- A pattern of ongoing imports from Gloucestershire and Warwickshire to individual sites within Worcestershire.

A4.85 There are potential strategic issue to consider between Worcestershire and 13 WPAs in relation to **non-hazardous waste**. In particular:

- Between 21% and 30% of the imports of non-hazardous waste into Worcestershire are from Herefordshire.
- There is a pattern of ongoing imports from Herefordshire, Sandwell, Warwickshire, Bristol City and Nottingham City to individual sites within Worcestershire.
- There is potential for Worcestershire to have a strategic reliance on the facilities in six WPAs.
- Movements of non-hazardous waste out of Worcestershire are disproportionately to facilities managing 'green waste, food waste, and sludges', this is likely to be a result of the identified baseline capacity gap for these wastes.

A4.86 There are potential strategic issue to consider between Worcestershire and 30 WPAs in relation to **hazardous waste**. This is due in part to the highly precautionary tonnage threshold used in relation to hazardous waste. Particular issues include:

- More than 79% of the hazardous waste arising in Worcestershire was managed in another WPA and more than 83% of the hazardous waste managed in Worcestershire originated in another WPA. The scale of overall imports and exports of hazardous waste in percentage terms is likely to reflect the highly specialised nature of hazardous waste management facilities, and the normal operation of the market in addressing the need for specialist management of hazardous waste.
- There is potential for Worcestershire to have a strategic reliance on the facilities in 10 WPAs.
- Imports of hazardous waste from Nottinghamshire account for between 15% and 39% of all hazardous waste imports into Worcestershire.
- More than 93% of the waste received by WWS050: Stourport Oil Treatment Plant between 2020 and 2024 is from WPAs other than Worcestershire.
- Between 36% and 49% of all hazardous waste movements from Worcestershire between 2020 and 2024 were to four facilities primarily treating or recycling oils. Between 71% and 73% of these movements were to a single site in Suffolk. There is likely to be a relationship between these facilities and WWS050: Stourport Oil Treatment Plant.

A4.87 The data indicates potential that other WPAs may have a strategic reliance on the following sites in Worcestershire:

- **WWS029: Unimetals, Long Marston** is a metal recycling and reprocessing facility managing non-hazardous and hazardous waste. In every year from 2020 to 2024, more than 99.9% of the waste received at WWS029: Unimetals, Long Marston was from outside of Worcestershire. The facility manages non-hazardous and hazardous waste.
    - More than 5,000 tonnes of non-hazardous waste was received from Bristol City, Nottingham City and Sandwell in three of the last five years
    - More than 500 tonnes of hazardous waste was received from Sandwell and Nottingham City. The site received more than 500 tonnes of hazardous waste from five other WPAs in one or two of the last five years. These movements were all less than 3% of the capacity of the sites, except for hazardous waste from Bristol City received in 2023 and 2024 which was equivalent to between 8% and 18% of the site's calculated capacity.
- **WWS030: MRW (Midlands Reclamation and Waste) Limited, Long Marston** is a storage and transfer facility managing inert and non-hazardous waste. In every year from 2020 to 2024, all of the waste managed at the site was from Warwickshire.
- **WWS038: Hartlebury Landfill Site, Hartlebury** is a landfill site, which primarily manages inert waste and includes an SNRHW cell for asbestos and similar hazardous materials. More than 500 tonnes of hazardous waste was received from Shropshire and Gloucestershire in at least three of the five years.
- **WWS040: Chloros Environmental, Hartlebury** is a storage and transfer facility which manages hazardous waste. More than 500 tonnes of hazardous waste was received from Devon and Northamptonshire in at least three of the last five years

- **WWS041: EnviRecover, Hartlebury** is an energy from waste facility which manages non-hazardous waste. Waste received from Herefordshire accounted for between 15% and 21% of the waste received annually between 2020 and 2024.
- **WWS050: Stourport Oil Treatment Plant** is a storage and transfer facility which manages hazardous waste. In every year from 2020 to 2024, more than 93% of the waste received at the facility was from outside of Worcestershire.
    - Between 2020 and 2024, the site received more than 500 tonnes of hazardous waste from Devon, Trafford and Oxfordshire in at least three of the last five years.
    - The site received more than 500 tonnes of hazardous waste from seven other WPAs in one or two of the last five years. These movements were all less than 5% of the capacity of the site, except for hazardous waste from Medway which was equivalent to 9% of the site's calculated capacity in 2020 but has not been above 500 tonnes per annum since.
- **WWS057: Wrubble Limited, Throckmorton** is a treatment and recycling facility manging primarily inert waste. More than 10,000 tonnes of inert waste was received from Gloucestershire in four of the last five years.
- **WWS058: Hill and Moor Landfill Site, Wyre Piddle** is a landfill, composting and IBA facility with a household waste site managing non-hazardous waste. Waste from Herefordshire was received at Hill and Moor Landfill site until 2021, but has not been received since due to a commitment to zero landfill targets by Herefordshire Council.
- **WWS078: Cleansing Service Group Ltd, Worcester** is a storage and transfer facility managing hazardous waste.
    - Between 2020 and 2024, the site received more than 500 tonnes of hazardous waste from Herefordshire and Gloucestershire.
    - The site received more than 500 tonnes of hazardous waste from two other WPAs in one or two of the last five years. These movements were all less than 2% of the capacity of the site.
- **WWS079: EnviroSort, Norton** is a MRF managing municipal (non-hazardous) waste from Herefordshire and Worcestershire. Between 2020 and 2024, non-hazardous waste received from Herefordshire was equivalent to between 21% and 24% of the site's calculated capacity.

A4.88 It is likely that additional residual waste capacity could be required in the West Midlands from 2041, but it is not yet clear the extent to which this may need to be addressed through Worcestershire's Waste Plan. This will be considered further in **Part B: Forecasting future waste arisings** and **Part C: Forecasting Capacity Needs**.

A4.89 The above matters will be explored through discussions with the relevant WPAs alongside the consultation on the baseline WNA.

Part B: Forecasting future waste arisings

B1: Policy Review and Options Appraisal

Introduction

B1.1. The role of the WNA is to determine whether existing waste management capacity is sufficient to meet current needs and to identify any additional capacity required to manage forecast waste arisings over the plan period.[149]

B1.2. **Part A** identifies whether equivalent self-sufficiency in waste management capacity in Worcestershire was achieved in 2023 as the starting point for assessing whether existing capacity is likely to be adequate to manage the scale of waste arisings from Worcestershire over the life of the emerging Waste Plan. **Part B: Forecasting future waste arisings** will build on this baseline to identify a range of scenarios for forecasting levels of future waste arisings. **Part C: Forecasting Capacity Needs** will consider forecast waste arisings against current capacity in order to identify the waste management capacity required to deal with forecast arisings during and at the end of the period covered by the Waste Plan.

B1.3. At this stage, **Part B** of this document sets out an initial framework for projections which is being consulted on. Baseline data will be used as the starting point to forecast a range of growth scenarios, identifying need at milestones throughout the plan period. They are likely to be influenced by the following considerations:

- National legislation, policies and targets
- Requirements of Waste Planning Practice Guidance (2012)
- Historic trends in waste arisings and recycling, other recovery and disposal rates
- Any relevant socio-economic factors
- Any other strategic issues identified.

B1.4. These considerations will enable comparison between the current policy context, past trends in waste arisings, and relationships with socio-economic factors to determine whether, in combination, they support alignment with or justify a deviation from the broad assumptions set out in the Planning Practice Guidance for Waste, and whether they indicate that the same growth assumptions would be appropriate for the waste source categories as a whole, or that different growth assumptions would be appropriate for different waste composition categories within any waste source category.

B1.5. The forecasting scenarios will be included in the next iteration of the WNA and will form part of the evidence base for the development of the Worcestershire Waste Plan.

B1.6. Consultation questions focus on whether all the key legislation and policies which need to be taken into account have been identified, and whether the proposed approach to developing forecasting scenarios is appropriate and justified.

[149] Waste - GOV.UK (www.gov.uk) Paragraph: 022 Reference ID: 28-022-20141016. Revision date: 16 10 2014

Overall approach to forecasting arisings

B1.7. Understanding likely future needs is an important part of the preparation of the Waste Plan. While a sufficient degree of confidence in likely future arisings is needed to plan for future waste management in the county, it is unrealistic to assume that forecasts can be made with total accuracy, especially beyond the short term.

B1.8. Defra has recognised that waste forecasting "*requires predicting future behaviour of a number of uncertain factors, such as waste arisings, recycling rates, when infrastructure projects are likely to come online and how much waste they will divert"* and warns that *"There are considerable uncertainties over forecasting these factors,* [including] *changes in the economy, attitudes to waste, access to finance and many other issues can all potentially impact future trends".*[150]

B1.9. The same uncertainties apply when forecasting need at a local level. Forecasting models are all built on a set of assumptions. When developing scenarios in the WNA, the following principles will apply:

- **Waste source categories will provide the starting point for forecasting:** National 'Planning Practice Guidance: Waste'[151] (as it stands in December 2025) identifies different factors that should be considered in the 'growth profiles' for municipal waste arisings, C&I waste arisings and construction and demolition arisings and hazardous waste arisings respectively. It is however noted that many more recent national targets apply to specific materials.
- **A number of scenarios will be used to plan for a range in forecast arisings:** National 'Planning Practice Guidance: Waste' is clear that WPAs should plan for a range of each type of waste rather than a specific single figure.[152] Multiple scenarios will be used to identify a range for the quantum of waste management capacity needed at regular milestone intervals, based on the achievement of equivalent self-sufficiency.
- **When developing growth profiles for forecasting future waste arisings:**
  - **The 2023 arisings for each waste source category will provide the baseline year to forecast from:** This is the most recent data available across all waste source categories. There is a risk that the baseline year may be an anomalous year, but it is considered that this risk is low and outweighed by the fact that using a spot year rather than an average or proxy to provide the baseline means that the accuracy of forecast scenarios can be monitored and reviewed against future annual arisings.
  - **National targets and initiatives relating to waste minimisation will be taken into account.** These are outlined in the "national legislation, policies and targets" section below.
  - **Historic trends in the quantity and fate of waste arisings will be taken into account.** This will consider trends in waste arisings since 2019 using 2019 -

[150] Defra (2013) 'Forecasting 2020 Waste Arisings and Treatment Capacity', Revised February 2013 Report published October 2013. The extracts quoted relate to forecasting of waste arisings and treatment capacity that was carried out to establish whether the Landfill Directive target for 2020 could be met.

[151] Waste - GOV.UK

[152] Waste - GOV.UK Paragraph: 036 Reference ID: 28-036-20141016 Revision date: 16 10 2014

2023 data.[153] This is the best data available, and 2019 provides the baseline year for national targets set out in the Environmental Improvement Plan. However, this is a relatively limited timeframe from which to identify clear trajectories, especially taking into account the exceptional effects of the Covid pandemic on society and the economy within this period. When additional data is published in the WDI and WDF, this will be added to increase the time series for identifying trends, rather than earlier data (i.e. 2019) being removed from consideration.

  - **Historic data on the quantity and fate of waste arisings will be considered alongside historic data on a variety of socio-economic factors that could inform 'growth profiles'.** These are outlined in the "socio-economic factors" section below.

- **When forecasting the need for capacity at each level of the waste management hierarchy:**

  - **Trends in the fate of waste arising in Worcestershire since 2019 will be taken into account, but the fate of waste arising in Worcestershire in 2023 will be used to provide the baseline recycling, other recovery and disposal rates:** Data showing the fate of waste arising in Worcestershire in 2023 (wherever it is managed) will be used to provide the baseline recycling, other recovery and disposal rates for each waste source category. This is useful to provide an indication of the level of the waste hierarchy at which Worcestershire's waste is managed. However, it should be noted that this doesn't necessarily reflect the "end fate" of arisings which may pass through multiple stages of treatment. In particular, it is not possible to identify how waste with recorded fate of sorting and transfer was subsequently managed. When calculating the proportions of waste with each fate, sorting and transfer will be removed from the totals. This is because they are intermediary processes and are not taken into account in national targets.

  - **The proportion of waste arising in Worcestershire in 2023 with a fate of sorting and transfer will be used to provide the baseline rate for sorting and transfer capacity requirements.**

  - **National targets and initiatives relating to the proportion of waste being managed through recycling, other recovery and disposal will be considered.**

- **A range of forecasted need will be identified at regular milestone years through the plan period and at the end of the plan period:**

  - As part of this consultation document views are being requested regarding whether:

    a) **The same forecast scenarios for arisings and the need for capacity at each level of waste management hierarchy should be applied to the whole waste source category,** with an assumption that the proportion of waste from each waste composition category remains constant for that waste stream (based on 2023) data

[153] Trends over a longer period (i.e. using data prior to 2019) are not considered due to the limitations of data before 2019 (see paragraphs A2.83 – A2.84).

OR

b) A different forecast scenario for arisings and the need for capacity at each level of waste management hierarchy should be applied to each waste composition category within the waste source category.

- **Scenarios will be modelled for each waste composition category within each waste source category.**

  This means that changes to different waste composition categories can be monitored against the forecasts, particularly where there are different policy drivers or socio-economic factors to consider. It also means that the milestone data for each waste composition category can be aggregated in a way that is consistent with the baseline equivalent self-sufficiency data. This will "enable proper consideration of when certain facilities might be needed" in accordance with national planning practice guidance. [154]

- **The following template will be used to show a range in forecast arisings for each milestone year**

Table B1 - 1 Template table for milestones (tonnes)

	General waste	Inert waste	Green waste, food waste, and sludges	End of Life Vehicles	Hazardous waste	Total
Treatment and Recycling						
Other recovery (Energy)						
Other recovery (to land)						
Disposal: Landfill						
Disposal: Incineration and Combustion						
Other						
Sorting and transfer						
Total						

B1.10. The forecasting model will be developed within the framework provided by these principles. The rest of this chapter provides an overview of over-arching national legislative and policy drivers and wider socio-economic factors.

National legislation, policies and targets

B1.11. This section sets out an initial consideration of the national legislation, policies and waste management targets that set the framework for waste management and forecasting.

[154] Waste - GOV.UK Paragraph: 028 Reference ID: 28-028-20141016 Revision date: 16 10 2014

B1.12. At the time of writing[155], planning policy for waste is set out across the National Planning Policy Framework (December 2024)[156], National Planning Policy for Waste (October 2014)[157], and Planning Practice Guidance[158]. Specific points of relevance from these documents are addressed in the sections below. However, significant changes to national planning policy and guidance are anticipated to accompany the implementation of the Levelling Up and Regeneration Act's changes to the plan-making system. Any changes to policies and guidance around forecasting waste arisings and waste capacity needs will be considered as we develop the next iteration of the WNA, alongside any points raised in response to the consultation on this WNA.

The Finance Act 1996 and The Landfill Tax Regulations 1996

B1.13. Landfill tax is "a tax on the disposal of material. As such, it encourages efforts to minimise the amount of waste produced and the use of non-landfill waste management options, which might include recycling, composting and recovery".[159]

B1.14. There are currently two rates of landfill tax: the standard rate is currently £126.15 per tonne and the lower rate, which broadly applies to inert, less polluting materials, is £4.05 per tonne. In May 2025 the Government also consulted on reforms to landfill tax,[160] saying "Many materials subject to the lower rate, such as rocks and soils, have the potential to be recycled and reused, which would reduce our reliance on scarce natural resources". The proposal was to drive more materials out of landfill and design out incentives for Landfill Tax fraud by transitioning to a single rate of landfill tax, reforming landfill tax exemptions and removing landfill tax relief. If implemented, these proposals would have been likely to impact on the proportions of CDE&M waste sent to landfill. However, it was announced in the November 2025 Budget that the proposals will not be taken forward.

'A Green Future: Our 25 Year Plan to Improve the Environment' (2018) and Resource and Waste Strategy (2018)

B1.15. 'A Green Future: Our 25 Year Plan to Improve the Environment' (2018) includes the goal to "Maximise our resources, minimise our waste" and sets the ambition of zero avoidable waste by 2050.[161] This is supported by the 'Resource and Waste Strategy' (2018).

B1.16. The strategic principles of the 'Resource and Waste Strategy' (2018) include "…To prevent waste from occurring in the first place, and manage it better when it does; [and] To ensure that those who place on the market products which become waste to take greater

[155] As of November 2025.

[156] National Planning Policy Framework - GOV.UK

[157] National planning policy for waste - GOV.UK

[158] Planning practice guidance - GOV.UK (Waste section last updated 2015).

[159] HM Revenue & Customs, Excise Notice LFT1 — a general guide to Landfill Tax (Updated 1 November 2024).

[160] Consultation on Reform of Landfill Tax in England and Northern Ireland - GOV.UK

[161] 25 Year Environment Plan - GOV.UK

responsibility for the costs of disposal – the 'polluter pays' principle."[162] This strategy will contribute towards the delivery of five strategic ambitions:

1. To work towards all plastic packaging placed on the market being recyclable, reusable or compostable by 2025;
2. To work towards eliminating food waste to landfill by 2030;
3. To eliminate avoidable plastic waste over the lifetime of the 25 Year Environment Plan;
4. To double resource productivity by 2050; and
5. To eliminate avoidable waste of all kinds by 2050."

B1.17. The strategy proposed a review of existing UK-wide extended producer responsibility (EPR) schemes that were already in place for some waste in the C&I waste source category, namely packaging waste, ELV, batteries and accumulators, and waste electrical and electronic equipment, and the strategy proposed improvements to these schemes. It also proposed the development of new EPR schemes including textiles, and made commitments to increase municipal recycling rates to 65% and to ensure that no more than 10% of municipal waste is landfilled by 2035.

B1.18. In relation to ELVs, the Resources and Waste Strategy stated "In 2016, the UK achieved an overall recovery rate of 92%. Although this is high compared to many other waste streams, this was below the target of 95%".

Net Zero Strategy 2021

B1.19. Net Zero Strategy 2021 states that *"To support our commitment to explore options for the near elimination of biodegradable municipal waste to landfill from 2028, we are bringing forward £295 million of capital funding which will allow local authorities in England to prepare to implement free separate food waste collections for all households from 2025."* It also reiterates commitments in the Resources and Waste Strategy 2018, stating that:

> *"By 2050, we will have met the 25 Year Environment Plan (25YEP) commitments to eliminate all avoidable waste, including plastic, and to double resource productivity. A circular economy will be part of everyday life: reusing, repairing, and remanufacturing goods will be standard practice. Goods will be designed to last for longer and be more efficient. At end of life, the vast majority of products will be sent for recycling, with food, garden, and dry materials collected separately and used as lower carbon inputs for new products. Producer responsibility schemes will be embedded across the economy. Any non-recyclable residual waste will be treated to enable the processing of waste into valuable outputs, such as energy. Where possible, these processes would include carbon capture and storage… Only where no such treatment is possible may landfill be permitted."*

B1.20. Specific reference is made to delivering the UN Sustainable Development Goal 12.3 to halve food waste by 2030, exploring policies to work towards the near elimination of biodegradable municipal waste to landfill by 2028 and eliminating food waste to landfill.

[162] Our waste, our resources: a strategy for England

Waste Management Plan for England 2021

B1.21. Waste Management Plan for England 2021 supports the delivery of The Waste (England and Wales) Regulations 2011 and Waste (Circular Economy) (Amendment) Regulations 2020 and include the measures to be taken so that, by 2035:

- the preparing for re-use and the recycling of municipal waste is increased to a minimum of 65% by weight.
- the amount of municipal waste landfilled is reduced to 10% or less of the total amount of municipal waste generated (by weight).

B1.22. It also gives consideration to other waste streams.

Routemap to Zero Avoidable Waste in Construction (2021)

B1.23. The Government's Green Construction Board Taskforce published a "Routemap to Zero Avoidable Waste in Construction" in July 2021 which includes a key target to eliminate all but hazardous construction and demolition waste to landfill and reduce soil to landfill by 75%, ultimately working towards zero avoidable[163] construction and demolition waste by 2050.[164]

The Environment Act 2021, The Environmental Targets (Residual Waste) (England) Regulations 2023 and Environmental Improvement Plan 2025

B1.24. The Environment Act 2021 "provides a legal framework for environmental governance" and "makes provision for specific improvement of the environment, including measures on waste and resource efficiency, air quality and environmental recall, water, nature and biodiversity, and conservation covenants".[165]

B1.25. The Act sets targets for recyclable household waste in each recyclable waste stream to be collected separately except where doing so is not technically or economically practicable or would have no significant environmental benefit. Similar requirements also apply to industrial or commercial waste "which is similar in nature and composition to household waste".

[163] A footnote in the 25YEP states that "Avoidable means what is Technically, Environmentally and Economically Practicable."

[164] The waste prevention programme for England: Maximising Resources, Minimising Waste - GOV.UK

[165] Explanatory notes accompanying the Environment Act 2021.

B1.26. The Environmental Targets (Residual Waste) regulations set a statutory target to ensure that by 31 December 2042, the total mass of residual waste excluding major mineral wastes does not exceed 287 kg per head of population in England.[166]

B1.27. The Act was supported by the Environmental Improvement Plan 2023, now replaced by Environmental Improvement Plan 2025,[167] which sets out the following key actions:

- *"Implement Extended Producer Responsibility for packaging (pEPR) to move the cost of dealing with household packaging waste to packaging producers,*
- *Introduce the Deposit Return Scheme for drinks containers from October 2027…*
- *Introduce Simpler Recycling in England from 2025, ensuring the same recyclable waste streams are collected for recycling from all households and workplaces.*
- *Implement the Design for Life roadmap to transition the UK away from all avoidable single use medtech products by 2045.*
- *Introduce measures to drive the reduction and near-elimination of biodegradable municipal waste to landfill from 2028. We will support this through the collection and packaging reforms. Potential options beyond this include expanding the list of separately collected materials that are banned from landfill without some form of treatment process to include paper and card, food, garden waste, wood and textiles*
- *Introduce separate food waste collections for all households from 2026."*

B1.28. The Environmental Improvement Plan 2025 also includes the following interim targets to support the Environment Act waste target:

"The statutory Environment Act 2021 target for waste is:

- *By 31 December 2042, the total mass of residual waste excluding major mineral waste for the calendar year 2042 does not exceed 287kg per capita. This is roughly the same as a 50% reduction from 2019 levels.*

We have set the following updated interim targets for waste:

- *By December 2030, the total mass of residual waste excluding major mineral waste in the most recent full calendar year does not exceed 437kg per capita (24% reduction)*
- *By December 2030, the total mass of residual waste excluding major mineral waste in the most recent full calendar year does not exceed 25.5 million tonnes (21% reduction)*
- *By December 2030, the total mass of residual municipal waste in the most recent full calendar year does not exceed 333kg per capita (29% reduction)*
- *By December 2030, the total mass of residual municipal food waste in the most recent full calendar year does not exceed 64kg per capita (50% reduction)*

[166] For the purposes of measuring progress against this target, residual waste is defined as waste generated in England that is sent to landfill, put through incineration (including energy from waste), used as energy recovery (excluding anaerobic digestion) in the UK, or sent outside of the UK for energy recovery.

[167] Environmental Improvement Plan 2025

- *By December 2030, the total mass of residual municipal plastic waste in the most recent full calendar year does not exceed 42kg per capita (45% reduction)*
- *By December 2030, the total mass of residual municipal paper and card waste in the most recent full calendar year does not exceed 74kg per capita (26% reduction)*
- *By December 2030, the total mass of residual municipal metal waste in the most recent full calendar year does not exceed 10kg per capita (42% reduction)*
- *By December 2030, the total mass of residual municipal glass waste in the most recent full calendar year does not exceed 7kg per capita (48% reduction)*

Residual, or 'black bag', waste is not recycled or reused, including material that is too degraded or contaminated for these purposes. For the purposes of the target, this is waste that is sent to landfill, put through incineration or used in energy recovery in the UK, or that is sent overseas to be used for energy recovery. Major mineral waste is not included in the target as these materials – like concrete, bricks and sand – are largely inert when treated as waste. The target therefore focuses where the environmental impact per tonne of waste treatment is greatest.

Insufficient progress was made under the previous EIP23. These interim targets therefore set the same level of reduction but pushed back to 2030. Our current and planned commitments account for 82% to 100% of the reduction in residual waste needed to meet the required targets; we will identify and deliver further commitments to reach these interim targets."

B1.29. Whilst most of the CDE&M waste source category is excluded from these targets, the Environmental Improvement Plan 2023 also included the aim to "prevent valuable soil resources from being sent to landfill". It states that "In 2016, soil made up 58% of material sent to landfill in the UK". A revised Code of Practice for the sustainable use of soil on construction sites will help to reduce the amount of soil sent to landfill and the development of a Soil Re-Use and Storage Depot scheme will help to prevent soil that would otherwise be classified as waste going to landfill, and encourage remediation and re-use of soil. There was an intention for this to be piloted in 2026.

'The waste prevention programme for England: Maximising Resources, Minimising Waste' (2023)

B1.30. The waste prevention programme for England builds on the Resources and Waste Strategy's principle "to prevent waste from occurring in the first place and manage it better when it does." The goal is "for a circular economy approach which retains products and materials in circulation for as long as possible and at their highest value."[168]

B1.31. The waste prevention programme for England identifies 7 key sectors for action based on available data on the amount of waste arisings or known carbon emissions from production in relation to:

- construction
- textiles
- furniture

[168] The waste prevention programme for England: Maximising Resources, Minimising Waste - GOV.UK

- electronics
- vehicles
- plastic and packaging
- food.

B1.32. The waste prevention programme for England 2023 reports that the UK construction sector uses the most resources and generates the most waste of any sector, producing over 60 million tonnes of non-hazardous waste each year in England, with up to 15% of materials being wasted during the construction process.[169] The waste prevention programme for England 2023 also reports that the recovery rate (including treatment and recycling and other recovery) from non-hazardous construction and demolition waste has remained at similar levels or 90% to 93% from 2010 to 2020. This includes waste managed on-site (which is not recorded in the WDI) as well as waste managed at permitted static facilities (i.e. those sites with data recorded in the WDI). However, much of this is downcycled - used to backfill holes on sites or crushed into aggregate - which is inefficient in terms of the energy used to create these materials, and carbon emissions.[170]

Changes to the exemptions regime

B1.33. Waste sites operating under exemptions are exempt from needing an environmental permit. Exemptions *"provide a light-touch form of regulation for small-scale, low risk waste management activities"*.[171] Exemptions are for activities where the risk to health or the environment has been assessed as low on the basis of that activity alone.[172]

B1.34. Each exemption has specific limits and conditions. Changes to the current exemptions regime are proposed[173] to remove exemptions U16 (Use of depolluted end-of-life vehicles for parts); T8 (Mechanically treating end-of-life tyres); and T9 (Recovery of scrap metal); and to prohibit the use of waste exemptions at sites with an environmental permit (see **Appendix 5: Exemptions** for more details).

B1.35. If these changes go ahead, this is likely to increase the number of facilities that require environmental permits and consequently the number of sites for which data is reported in the WDI. In turn, the WDI is likely to show higher volumes of waste arising and being managed which previously would not have been captured in the WDI data. It will be important to avoid assumptions that such increases are evidence of more waste being generated, because some increases may simply be due to arisings being reported when

[169] The waste prevention programme for England: Maximising Resources, Minimising Waste - GOV.UK

[170] The waste prevention programme for England: Maximising Resources, Minimising Waste - GOV.UK

[171] https://consult.defra.gov.uk/waste/crime-and-poor-performance-in-the-waste-sector/user_uploads/part-b-1.pdf

[172] Defra, 'Reducing crime at sites handling waste, and introducing fixed penalties for waste duty of care: Consultation outcome, Supplementary government response', Updated 6 October 2023. Available at https://www.gov.uk/government/consultations/reducing-crime-at-sites-handling-waste-and-introducing-fixed-penalties-for-waste-duty-of-care/outcome/supplementary-government-response#:~:text=Waste%20exemptions%20are%20for%20activities,carried%20out%20on%20the%20site.

[173] Defra, 'Reducing crime at sites handling waste, and introducing fixed penalties for waste duty of care: Consultation outcome, Supplementary government response', Updated 6 October 2023. Available at https://www.gov.uk/government/consultations/reducing-crime-at-sites-handling-waste-and-introducing-fixed-penalties-for-waste-duty-of-care/outcome/supplementary-government-response#:~:text=Waste%20exemptions%20are%20for%20activities,carried%20out%20on%20the%20site.

previously they were not. It may be difficult to determine the level of any true growth, rather than growth attributable to these changes to the exemptions regime. However, the impact of increased levels of waste appearing in the WDI may prove to be limited, as apparent changes in arisings should be matched by equivalent changes in capacity, as exempt facilities come under the environmental permitting regime.

Planning Practice Guidance: Waste

C&I waste

B1.36. National planning practice guidance states that, when forecasting C&I waste, waste planning authorities should:

- "*set out clear assumptions on which they make their forecast, and if necessary forecast on the basis of different assumptions to provide a range of waste to be managed*
- *be clear on rate of growth in arisings being assumed. Waste planning authorities should assume a certain level of growth in waste arisings unless there is clear evidence to demonstrate otherwise*".[174]

B1.37. However, there has been a step-change in government priorities for waste since the publication of this guidance with a focus on the circular economy and an ambition of zero avoidable waste by 2050.[175] When forecasting C&I waste arisings consideration will be given to whether forecasting growth in C&I arisings is still appropriate.

CDE&M waste

B1.38. National planning practice guidance[176] states that:

"Waste planning authorities should start from the basis that net arisings of construction and demolition waste will remain constant over time as there is likely to be a reduced evidence base on which forward projections can be based for construction and demolition wastes. However, when forecasting construction and demolition waste arisings, the following may be relevant:

- *annual existing returns from waste management facilities* [as recorded in the WDI]
- *data from site waste management plans (where available)*
- *the fact that a sizeable proportion of construction and demolition waste arisings are managed or re-used on-site, or exempt sites, so it is critical that some provision is made for unseen capacity in this way*
- *any significant planned regeneration or major infrastructure projects over the timescale of the Plan".*

[174] Waste - GOV.UK Paragraph: 032 Reference ID: 28-032-20141016 Revision date: 16 10 2014

[175] 25 Year Environment Plan - GOV.UK

[176] Waste - GOV.UK Paragraph: 033 Reference ID: 28-033-20141016 Revision date: 16 10 2014

B1.39. The UK Statistics on Waste (2025)[177] also make reference to limitations with the evidence base: "*Accurately quantifying construction and demolition (C&D) waste is challenging and whilst the absolute tonnage figures are subject to a relatively high level of uncertainty, there is not a significant impact on the final recovery rate.*"

B1.40. National planning practice guidance also notes that *"a sizeable proportion of construction and demolition waste arisings are managed or re-used on-site, or exempt sites, so it is critical that some provision is made for unseen capacity in this way".*[178]

B1.41. Data from site waste management plans is not collated or available on a county-wide scale and therefore cannot be taken into account.

Municipal waste

B1.42. Planning practice guidance on waste states that:

- *"The growth profile should be based on 2 factors:*
  - *household or population growth; and*
  - *waste arisings per household or per capita."* [179]
- *"A growth profile is prepared through a staged process:*
  - *calculate arisings per head by dividing annual arisings by population or household data to establish short- and long-term average annual growth rates per household; and*
  - *factor in a range of different scenarios, eg constant rate of growth, progressively lowering growth rates due to waste minimisation initiatives*

The final forecast can then be modelled with scenarios based on the long- and short-term rate of growth per household, together with household forecasts." [180]

B1.43. These considerations will be taken into account when forecasting municipal waste arisings, both in relation to municipal waste from households and municipal waste from other sources. Consideration will be given to whether there is a degree of alignment between historic trends relating to C&I waste arisings and MfOS, given that they both arise from economic uses rather than homeowners or construction activities.

Consideration of historic trends in the quantity and fate of waste arisings

B1.44. Consideration will be given to trends in waste arisings since 2019 using 2019 - 2023 data.[181]

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[177] UK statistics on waste - GOV.UK

[178] Waste - GOV.UK Paragraph: 033 Reference ID: 28-033-20141016 Revision date: 16 10 2014

[179] Waste - GOV.UK Paragraph: 029 Reference ID: 28-029-20141016 Revision date: 16 10 2014

[180] Waste - GOV.UK Paragraph: 030 Reference ID: 28-029-20141016 Revision date: 16 10 2014

[181] Trends over a longer period (i.e. using data prior to 2019) are not considered due to the limitations of data before 2019 (see paragraphs A2.83 – A2.84).

B1.45. This is the best data available in relation to waste arisings, notwithstanding the limitations outlined in Part A2[182]. 2019 also provides the baseline year for national targets set out in the Environmental Improvement Plan. However, it is acknowledged that this is a relatively limited timeframe from which to identify clear trajectories, especially taking into account the exceptional effects of the Covid pandemic on society and the economy within this period. When additional data is published in the WDI and WDF, this will be added to increase the time series for identifying trends, rather than earlier data (i.e. 2019) being removed from consideration.

B1.46. This is likely to include consideration of:

- The trends in waste arisings (growth and/or decline) by waste source category, including:
    - overall trends for the waste source category,
    - whether there are any significant variations by waste composition category within each waste source category.
- Trends in how Worcestershire's waste has been managed, wherever that has occurred, to give recycling, other recovery and disposal rates:
    - overall trends for the waste source category,
    - whether there are any significant variations by waste composition category within each waste source category,
    - How this compares to national targets.

B1.47. This will enable any trends in arisings and recycling, other recovery and disposal rates to be identified. Historic data on the quantity and fate waste arisings will also be considered alongside historic data on a variety of socio-economic factors that could inform 'growth profiles'.

Socio-economic factors to be considered

B1.48. The following wider socio-economic factors will be considered to determine whether there has been an historic relationship between waste arisings and these factors and whether they could be used to inform growth profiles at each level of the waste management hierarchy:

- Population changes
- Number of households
- Dwelling completions and household growth in local plans
- Economic growth (GVA and GDP)
- Other construction activities and infrastructure delivery (particularly in relation to CDE&M waste), and
- Relationships to other waste source categories (particularly in relation to MfOS and WfWM).

[182] See "Sources and use of data" section (pages 36 -45)

B1.49. More detail about the data sources and trends for each of these socio-economic factors is outlined below.

Population

B1.50. Planning Practice Guidance for Waste suggest that there is a relationship between population change and municipal waste arisings. [183] When developing a forecasting model, consideration will be given to whether this is the case for municipal waste and for other waste source categories.

B1.51. As well as considering whether there is any correlation between historic trends in the total population of Worcestershire and the quantity of waste arisings, this is likely to take account of the quantity of waste per head of population. This will allow consideration of any de-coupling of population growth from waste production and will support comparison with national targets for the quantity of waste arising per person.

Historic trends

B1.52. Historic population data for Worcestershire is available through the ONS[184]. Data from 2019 onwards is presented in Table and Figure 1 below, to use the same baseline that will be used when considering trends in waste arisings.

Figure B1 - 1. Worcestershire population: 2019-2023

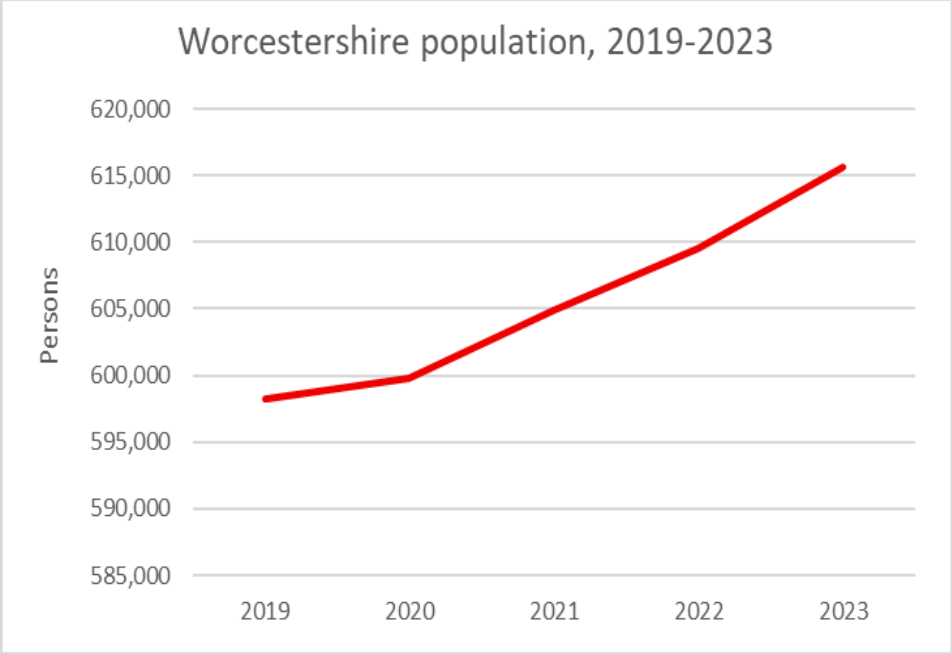


Table B1 - 2. Worcestershire population: 2019-2023

Year	2019	2020	2021	2022	2023
Worcestershire total population	598,250	599,819	604,902	609,554	615,661

[183] Waste - GOV.UK Paragraph: 029 Reference ID: 28-029-20141016 Revision date: 16 10 2014

[184] Office for National Statistics, 'Mid-Year Population Estimates, England and Wales, June 2024' (specific tab is 'MYE4: Population estimates: Summary for England and Wales, mid-2011 to mid-2024'). Data published 30 July 2025. Next publication scheduled for summer 2026.

B1.53. The data shows continuous year-on-year growth, with an overall increase of 2.9% over the five years. While this may sound limited in relative terms, it is important to avoid underestimating the scale of the change, which is more than 17,400 people over five years.

B1.54. Consideration will be given to whether there is a correlation between historic population change in Worcestershire and waste arising from any waste source category. This data will also be used alongside arisings data to calculate waste per head of population. Where there is a relationship, consideration will be given to whether future estimates of population growth would be helpful in forecasting future waste arisings.

Future estimates of population growth

B1.55. If population growth remained on a trajectory consistent with growth from 2019 to 2023, this would equate to 69,000 people over a fifteen-year period typically used in plan-making, which would be larger than the population of Kidderminster[185].

B1.56. The Office for National Statistics (ONS) produces projections of population change at the national and "sub-national" (local authority) level. At the time writing (November 2025), the latest datasets of population projections are 2022-based, and cover a 25-year period to 2047[186]. While there are technical differences between ONS datasets that look backwards (covering 2019-2023) and those that project forwards, this results in only negligible differences for the 'cross-over' years (in this case 2022 and 2023).[187]

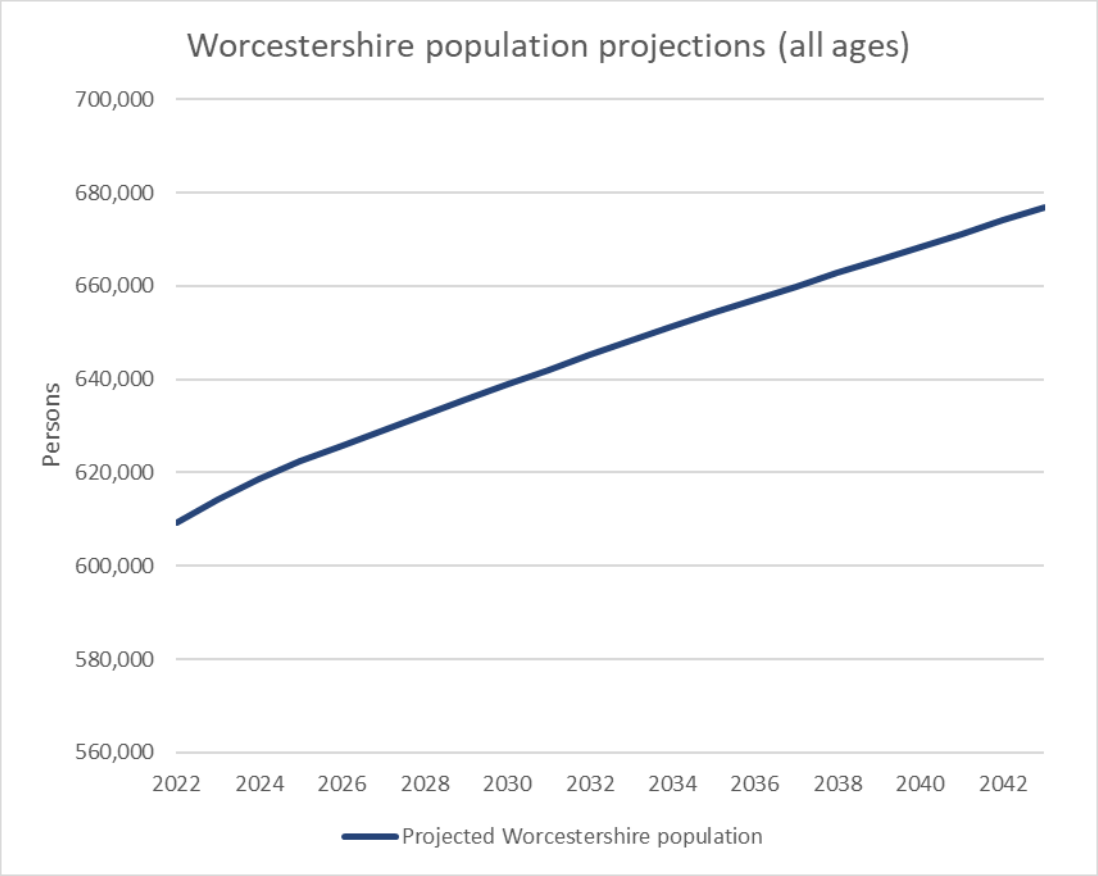
B1.57. The data, presented in Figure B1 - 2 below, show that the population of Worcestershire is projected to increase by 12.9%, from 609,323 to 687,861, over the 25-year period. The rate of increase is broadly consistent over the period.

Figure B1 - 2. Worcestershire population projections

[185] Office for National Statistics, 'Understanding towns in England and Wales: Population and demography', dataset 'Towns 5,000 to 225,000' gives a population for Kidderminster of 57,929 as of 2019 (the latest available date).

[186] Office for National Statistics, Population projections for local authorities by single year of age and sex, England. Release date: 24 June 2025 https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/localauthoritiesinenglandz1

[187] The 2022 figure in the ONS 'Population estimates and components of population change: Detailed time series 2011 to 2024' is 231 persons (or 0.04%) higher than the 2022 figure in the ONS Sub-National Population Projections. This is considered an acceptable difference to enable broad comparisons for strategic planning purposes.



B1.58. The ONS population projections predict that net migration is projected to be *"the only source of population growth in the UK over the next 25 years"*. The ONS Statistical Bulletin that accompanies the latest population projections cautions that *"The long-term assumption should not be viewed as a forecast, but as a scenario where long-term net migration averages out at a certain level"*. Notwithstanding this uncertainty, the ONS projections remain the most credible and robust available.

B1.59. The ONS population projections also predict that *"there are projected to be many more people at older ages by 2047"*[188]. Whilst these specific aspects of demographic change could potentially have impacts on the types of waste arisings, it is considered to be beyond the scope of the WNA to identify or quantify the likely impact of such changes.

Number of households

B1.60. Planning Practice Guidance for Waste suggests that there is a relationship between household change and municipal waste arisings. [189] When developing a forecasting model consideration will be given to whether this is the case for municipal waste and for other waste source categories.

[188] Office for National Statistics, National population projections: 2022-based: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/nationalpopulationprojections/2022based#:~:text=next%2025%20years.-,Over%20the%2025%2Dyear%20period%20between%20mid%2D2022%20and%20mid,net%20migration%20totalling%2010.0%20million.

[189] Waste - GOV.UK Paragraph: 029 Reference ID: 28-029-20141016 Revision date: 16 10 2014

B1.61. As well as considering the correlation between historic trends in the number of households in Worcestershire and the quantity of waste arisings, this is likely to take account of the quantity of waste per household, allowing consideration to be given to any impacts from waste reduction initiatives over this period.

Historic trends

B1.62. Estimates of household numbers are available for Worcestershire through the Office for National Statistics[190] (ONS). This data is collated and presented in Figure B1 - 3 and Table B1 - 3 below for 2019 onwards, to use the same baseline that will be used when considering trends in waste arisings. Note that the ONS has rounded estimates to the nearest hundred.

Figure B1 - 3. Worcestershire households, 2019-2023

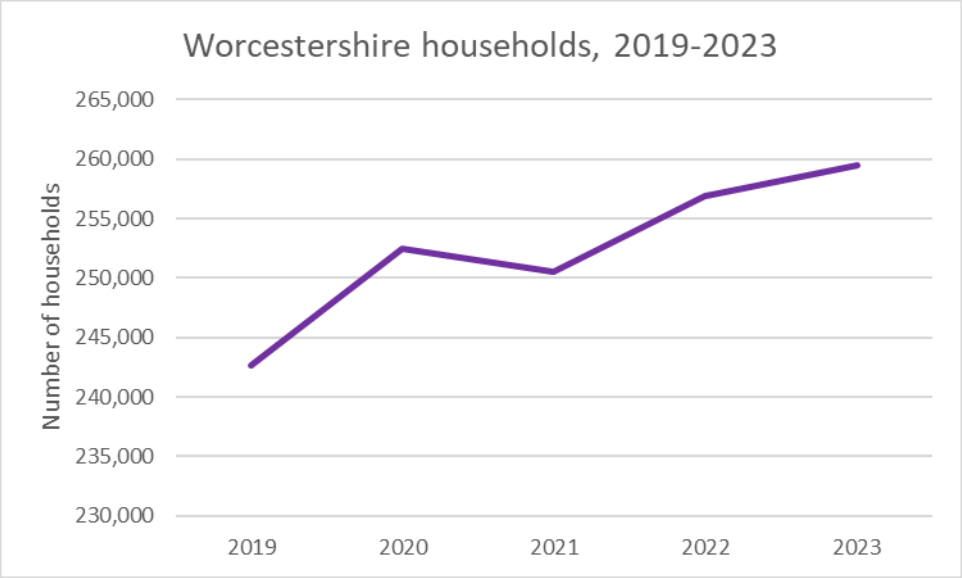


Table B1 - 3. Worcestershire households, 2019-2023

Year	2019	2020	2021	2022	2023
Worcestershire households	242,600	252,500	250,500	256,900	259,500

B1.63. The data shows a growth in households of 7% over the five-year period. While the pattern of growth is broadly consistent year-on-year, there is a notable decrease between 2020 and 2021, which may be related to the Covid pandemic.

B1.64. Consideration will be given to whether there is a correlation between historic changes in household numbers in Worcestershire and waste arising from any waste source category.

[190] Because no single dataset has been identified covering the whole WNA baseline period of 2019-2023, data has been aggregated from three different datasets. Whilst this does introduce a degree of uncertainty over the comparability of one year's data with the next (due to changes in modelling in different datasets), the limited degree of variance is considered acceptable for strategic planning purposes. Data sources:

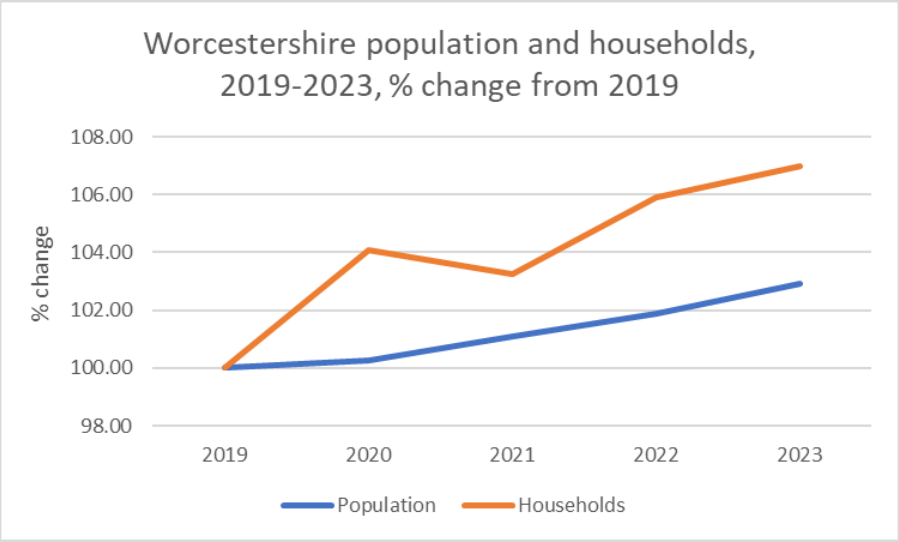
- 2019: Estimated number of households in local authorities in England and Wales, counties and regions of England, Scottish council areas, and GB constituent countries, 2004 to 2019
- 2020, 2021, 2022: Estimated number of households in Great Britain in ITL1, ITL3, English and Welsh local authorities and Scottish council areas, 2020 to 2022
- 2023: Estimated number of households in Great Britain in ITL1, ITL3, English and Welsh local authorities and Scottish council areas, 2023

This data will also be used alongside arisings data to calculate waste per household. Where there is a relationship, consideration will be given to whether future estimates of household growth would be helpful in forecasting future waste arisings.

Comparison between population and household growth

B1.65. Figure B1 - 4 below shows the growth in population alongside the growth in households between 2019-2023. It is clear that the two datasets have diverged, and the rate of change in population was less than 3% by the end of the five-year period, compared a rate of change in households of almost 7%.

Figure B1 - 4. Change in Worcestershire population and households, 2019-2023



ALT TEXT: Line graph showing the indexed change in data set out in table 2 and table 3 above.

Future estimates of household numbers

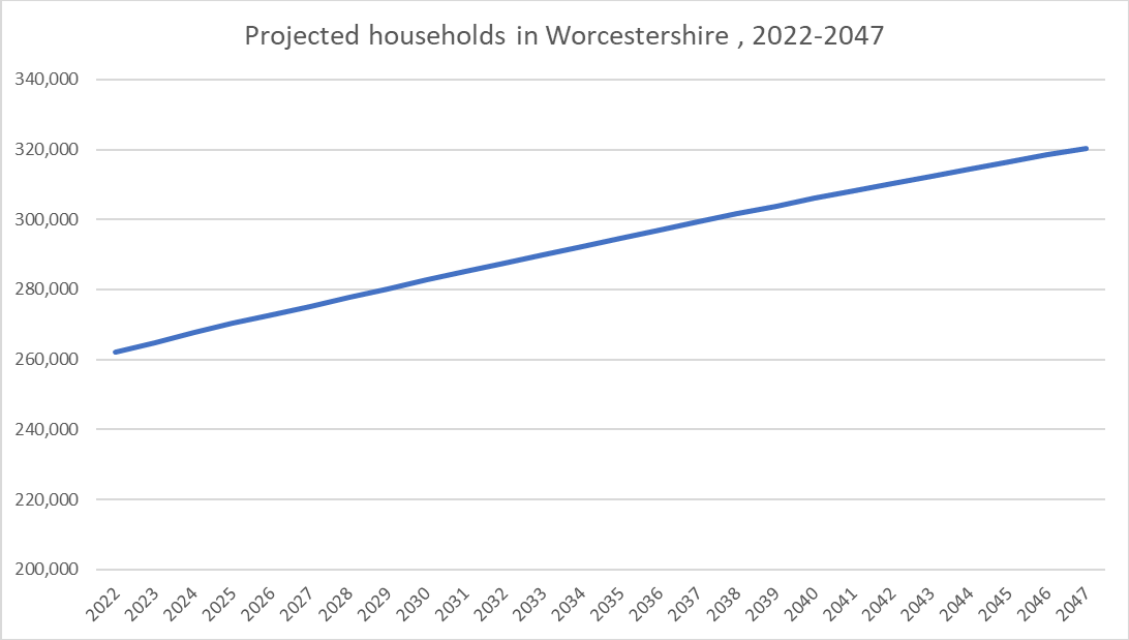
Office for National Statistics (ONS) projections of household numbers

B1.66. The Office for National Statistics (ONS) produces projections of household numbers at the national and "sub-national" (local authority) level. At the time of preparing the WNA, the latest household projection datasets are 2022-based, and cover a 25-year period to 2047.[191] Because the household projections are informed by factors including population projections, the uncertainties associated with population projections, as discussed in the section above, apply equally to the household projections.

B1.67. The data, presented in Figure B1 - 5 show that the number of households in Worcestershire is projected to increase by 22.3% over the 25-year period, from 261,991 to 320,453. The increase is broadly linear over the period.

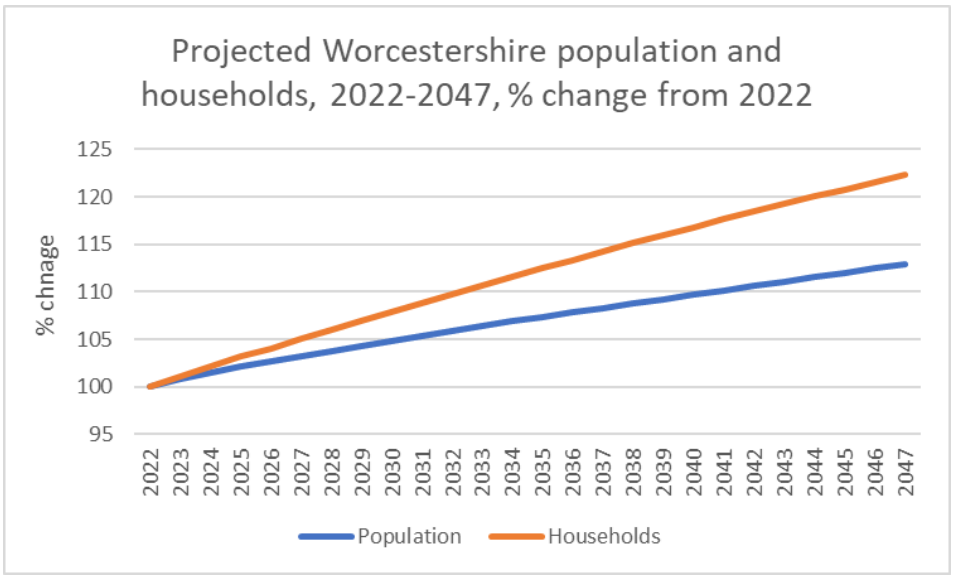
[191] "Table 406: Household projections, local authorities and higher administrative areas within England, mid-2022 to mid-2047" Office for National Statistics, Household projections for England. Release date: 28th October 2025 Household projections for England - Office for National Statistics

Figure B1 - 5. Projected households in Worcestershire, 2022-2047



B1.68. The ONS projections of household growth are based on factors other than simply changes population, with Figure B1 - 6 showing that ONS estimates are for growth in households to be at a greater rate than growth in population. Comparing the rate of change demonstrates a 22.3% rate of household growth over the 25-year period, whereas population growth is only 12.9%.

Figure B1 - 6. Change in projected Worcestershire population and households, 2022-2047



B1.69. The ONS household projections show the number of households there would be in England in the future if a set of assumptions about the size and structure of the population and that population's patterns of household formation were realised in practice. These assumptions are based on past demographic trends in the population and rates of household formation. The projections generally do not take into account any policy changes that have not yet occurred, nor those that have not yet had an impact on observed trends.

B1.70. These projections differ to the five-year housing requirements that must be met in Local Plans, as set out in "Dwelling completions and household growth in local plans" below.

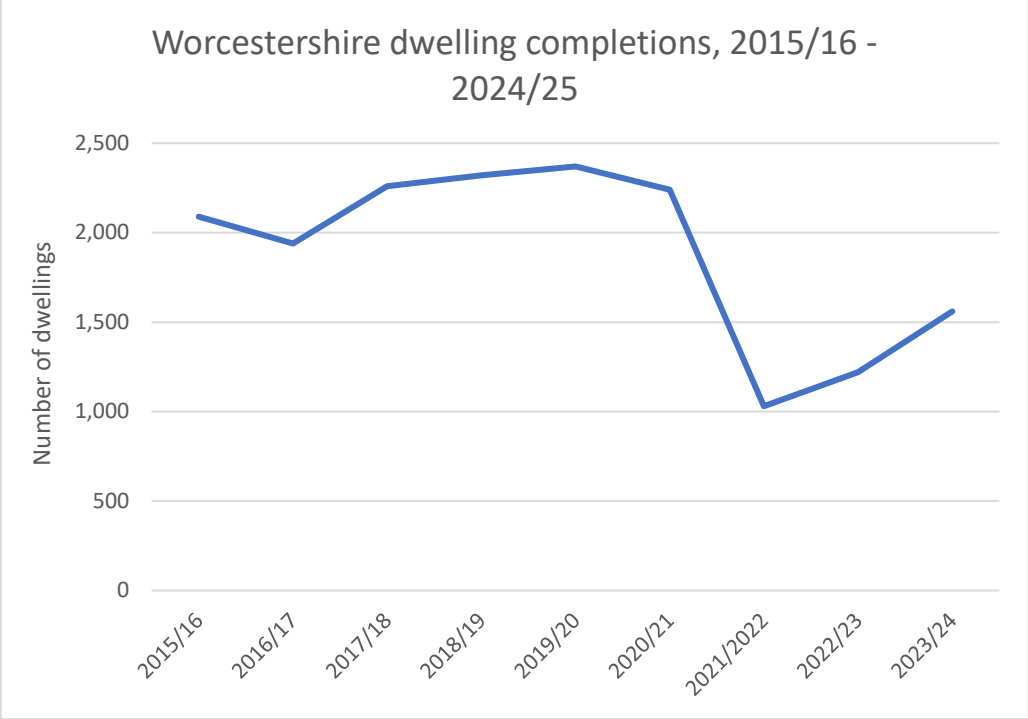
Dwelling starts, completions and household growth in local plans

B1.71. Whilst numbers of dwelling starts, completions and targets for household growth in local plans are interrelated with household projections as considered above, these factors are introduced separately here because trends in historic and anticipated house building will not only impact on the overall number of households but also have the potential to impact on CDE&M waste arisings as dwellings are being built.

Historic trends

B1.72. Estimates of permanent dwellings started and completed are available for Worcestershire through the Office for National Statistics[192] (ONS). Completions over the last 10 years are shown in Figure B1 - 7 for reference.

Figure B1 - 7. Dwellings completed in Worcestershire, 2015/16 - 2024/25



B1.73. Consideration will be given to whether there is a correlation between historic dwelling completions in Worcestershire and CDE&M waste arisings. This data will also be used alongside arisings data to calculate CDE&M waste per dwelling completed. Where there is a relationship, consideration will be given to whether of future estimates of dwelling completions would be helpful in forecasting future CDE&M waste arisings.

[192] Live tables on housing supply: indicators of new supply - GOV.UK

Future estimates of construction activity and growth in households

B1.74. Adopted Local Plans in Worcestershire make provision for a total of 2,218 new homes per annum, equating to 11,090 dwellings over five years.[193] This is comparable to the scale of annual delivery in Worcestershire in the four years up to March 2021, but is 13% higher than the average annual completions over the last 10 years.

B1.75. Each local planning authority must maintain a five-year supply of housing land to enable the housing requirement in their respective plans to be delivered. However, under the NPPF[194], Local Plans that are more than five years old must make provision for a five-year supply of housing based on the government's 'standard method' of calculating housing need.[195] The standard method does not, on its own, produce a housing requirement figure and may be different taking account of needs of neighbouring authorities or growth ambitions[196].

B1.76. At the time of writing (December 2025), of the adopted Local Plans in Worcestershire, only the Wyre Forest District Local Plan is less than five years old (adopted in 2022). As such, the housing requirements for the other local planning authorities in Worcestershire are informed by the 'standard method', together with any relevant additional buffers. The most recently available five-year housing land supply reports[197] for Worcestershire's local planning authorities provided an overall five-year housing requirement of 19,762 dwellings.

B1.77. The most recent five-year housing requirements are 78% higher than the combined figures in the adopted Local Plans, 102% higher than the average annual housing completions over the last ten years, and 130% higher than the average completions seen over the last five years.

B1.78. Delivering housebuilding at these levels would require average delivery of 3,952 dwellings per annum. Such a dramatic shift in construction output could impact on CDE&M waste arisings, and a significant increase in the number of households above ONS projections could also impact the scale of waste arisings in other waste source categories.

[193] Based on figures in South Worcestershire Development Plan (2016), Wyre Forest District Local Plan (2022), Bromsgrove District Plan (2017), and Borough of Redditch Local Plan No.4 (2017).

[194] Ministry of Housing, Local Government and Communities (December 2024) National Planning Policy Framework, paragraph 78.

[195] The standard method uses a formula that incorporates a baseline of local housing stock which is then adjusted upwards to reflect local affordability pressures to identify the minimum number of homes expected to be planned for. The standard method identifies a minimum annual housing need figure, and ensures that plan-making is informed by an unconstrained assessment of the number of homes needed in an area. Ministry of Housing, Local Government and Communities (December 2024) Planning Practice Guidance: 'What is the standard method for assessing local housing need?', Paragraph: 002 Reference ID: 2a-002-20241212, Revision date: 12 12 2024.

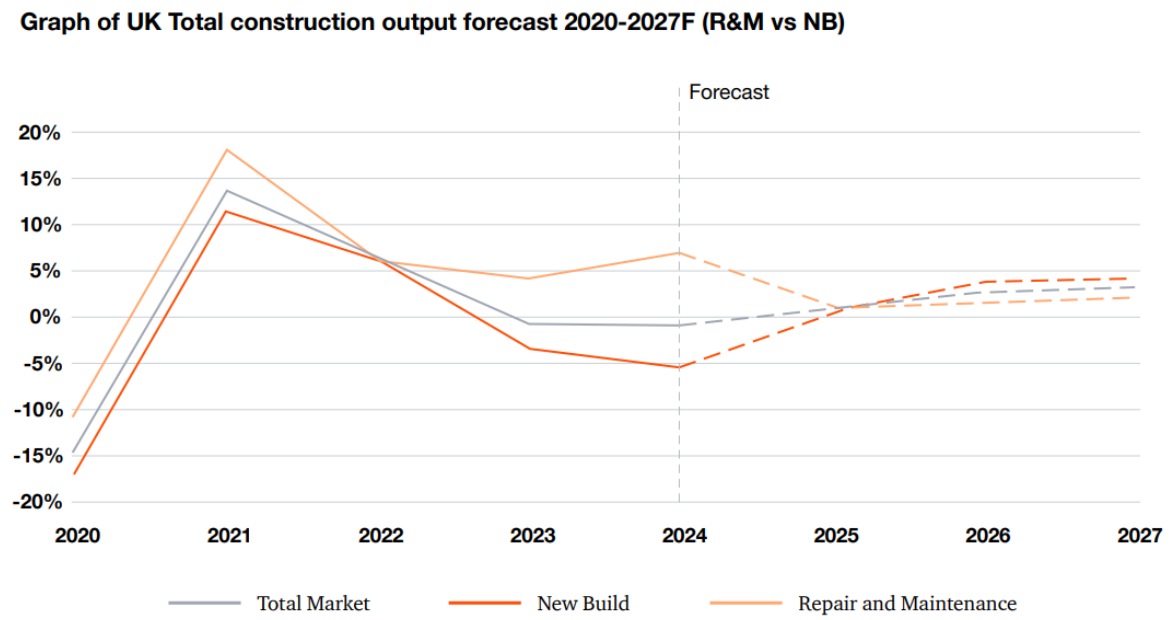
[196] *"The requirement may be higher than the identified housing need if, for example, it includes provision for neighbouring areas, or reflects growth ambitions linked to economic development or infrastructure investment."* Ministry of Housing, Local Government and Communities (December 2024) National Planning Policy Framework, paragraph 69.

[197] As at November 2025: For Bromsgrove District, Redditch Borough and Wyre Forest District, the previous and latest iterations were published in April 2024 and April 2025, respectively. For the three South Worcestershire authorities (Malvern Hills District, Worcester City, and Wychavon District) the previous iteration was published in November 2024, with the most recent iteration in January 2025.

B1.79. It is, however, unclear whether such levels of development could realistically be achieved. Annual housing completion statistics are available for every year since 1980[198]. The average annual requirement identified above has never been achieved over this period. The highest level of delivery came in 1987/88, when 3,420 dwellings were completed, but even this is 13% below the current requirement. Such a level of housing delivery is therefore unprecedented.

B1.80. There are a number of construction activity forecasts available, but none anticipate the scale of increase in construction activities that would be required to deliver these targets. For example "PwC Construction & Housebuilding Outlook H2 2025" says that *"Despite ongoing challenges across the housebuilding and commercial segments, our forecast anticipates the UK construction sector continuing to grow in 2025, with real output rising by c.1%, before further acceleration in 2026-27. While higher interest rates and subdued private sector demand remain a headwind, the short-term and medium-term outlook remain positive. The Bank of England is widely expected to continue rate cut into 2026. At the same time, policy support via planning reform, increased housing and energy infrastructure commitments, and ongoing public investment in schools and hospitals are expected to underpin an increase in growth in the coming years, which is reflected in our forecast".* This anticipates less than a 5% increase in activities across the total market between 2024 and 2027 as shown in Figure B1 - 8 below and does not make longer term forecasts. Glenigan's UK Construction Industry Autumn Forecast 2026-2027 report is more optimistic and expects construction output to rise by 13% over the next two years,[199] However this is still far below the increase in housebuilding targets identified above.

Figure B1 - 8. Figure 8. Graph of UK Total construction output forecast 2020-27) (PwC)



Source: [PwC Construction and Housebuilding Outlook]

[198] Ministry of Housing, Communities and Local Government, Statistical dataset: Table 253: permanent dwellings started and completed, by tenure and district, 1980/81-2024/25 (updated 19 September 2025)

[199] Construction Industry Forecast 2026-2027 | Glenigan

B1.81. There is therefore some uncertainty in relation to this socio-economic factor, which will need to be taken into account when building a forecasting model.

Other construction activities and infrastructure delivery

B1.82. In addition to housebuilding, a range of other construction activity takes placed in Worcestershire that generates CDE&M waste. This includes employment land and infrastructure development. Consistent, comparable figures on employment land development are not available. Similarly, while there is data on significant infrastructure projects that have taken place over the 2019-2023 period, there is insufficient data to provide a meaningful estimate of the CDE&M waste generated by these schemes, or to understand how this has changed over time.

B1.83. Consideration could be given to the number and scale of infrastructure projects underway in Worcestershire since 2019, local plan allocations and any Nationally Significant Infrastructure Projects or National Highways projects planned in Worcestershire. Although it would be difficult to quantify, this could be a factor for consideration in forecasting CDE&M waste arisings.

Economic activity

Historic trends

B1.84. The two primary indicators of economic performance are Gross Domestic Product (GDP) and Gross Value Added (GVA):

- GDP "measures the total value of all of the goods made, and services provided, during a specific period of time"[200].
- GVA is "the value generated by any economic unit that produces goods and services. It reflects the value of goods and services produced, less the cost of any inputs used up in that production process. GVA is a standard measure of the economic activity taking place in an area. It comprises the majority of gross domestic product (GDP), only excluding taxes and subsidies (such as Value Added Tax and duty on fuel or alcohol)"[201].

B1.85. As such, the two measures are very closely related, with the only difference being the effect of taxes and subsidies. This can be seen in Figure B1 - 9 below.

B1.86. Data on both GDP and GVA are available from the Office of National Statistics[202]. GVA data is available at county level, whereas the GDP data has to be aggregated from Worcestershire's six local authority areas.

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[200] Gross Domestic Product (GDP): What it means and why it matters: Gross Domestic Product (GDP): What it means and why it matters - GOV.UK

[201] Office for National Statistics: Official census and labour market statistics: UK small area gross value added estimates ("About this dataset").

[202] ONS dataset "Regional gross domestic product: local authorities, 1998 to 2023 edition" (specifically Table 10: Local Authority: Gross domestic product (GDP) chained volume measures (CVM) in 2022 money value, pounds million) and ONS dataset "Annual estimates of balanced UK regional gross value added (GVA(B)). Current price estimates, chained volume measures and implied deflators for UK countries, ITL1, ITL2 and ITL3

Figure B1 - 9. Worcestershire GVA and GDP, 2019-2023

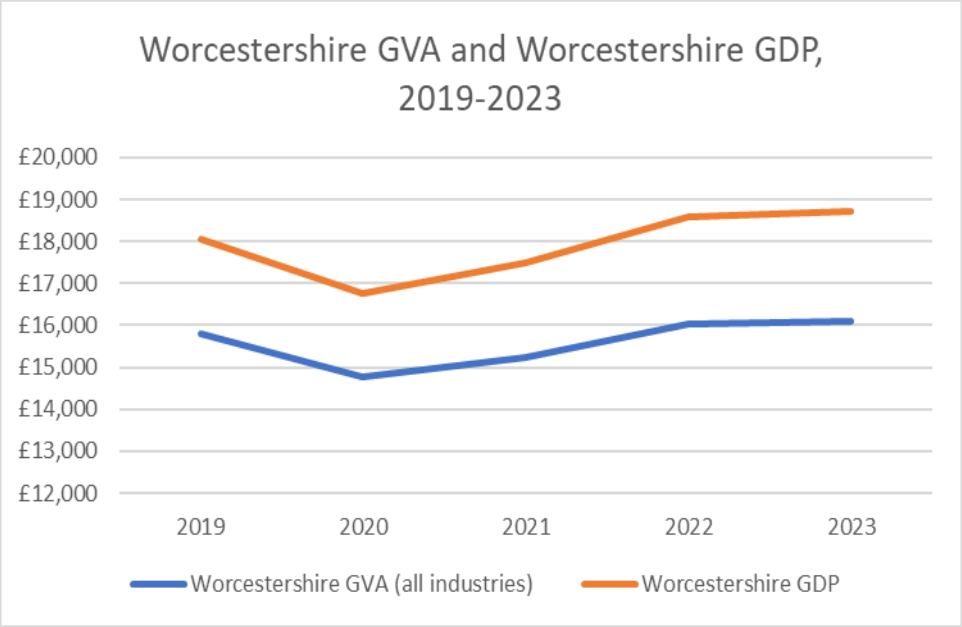


Table B1 - 4. Worcestershire GVA and GDP, pounds million

	2019	2020	2021	2022	2023
Worcestershire GVA (all industries)[203]	£15,814m	£14,785m	£15,228m	£16,042m	£16,101m
Worcestershire GDP[204]	£18,046m	£16,751m	£17,481m	£18,593m	£18,703m

B1.87. Consideration will be given to whether there is a correlation between historic trends in GVA and GDP in Worcestershire. Where there is a relationship, consideration will be given to whether future estimates of economic growth would therefore be helpful in forecasting future waste arisings for any waste source categories. There is however likely to be some decoupling of waste arisings from economic growth due to national legislative and policy drivers. This will also be taken into account and historic trends in waste arisings per unit of GVA/GDP could be considered.

Future estimates of economic growth

B1.88. HM Treasury 'Forecasts for the UK economy' is a monthly comparison of independent forecasts. The short-term forecast as of November 2025 summarises the average of 17 independent forecasts for 2025 and 2026, with forecast growth in GDP of 1.4% in 2025 and 1.2% in 2026.[205] It also summarises 12 medium-term projections up to 2029 as shown in Table B1 - 5.

regions, with a detailed industry breakdown" (specifically Table 3b: ITL3 chained volume measures in 2022 money value, pounds million).

[203] ONS: Regional gross value added (balanced) by industry: all International Territorial Level (ITL) regions. Table 3b: ITL3 chained volume measures in 2022 money value, pounds million

[204] ONS: Regional gross domestic product (GDP) local authority reference tables. Table 10: Local Authority: Gross domestic product (GDP) chained volume measures (CVM) in 2022 money value, pounds million

[205] Forecasts for the UK economy - GOV.UK

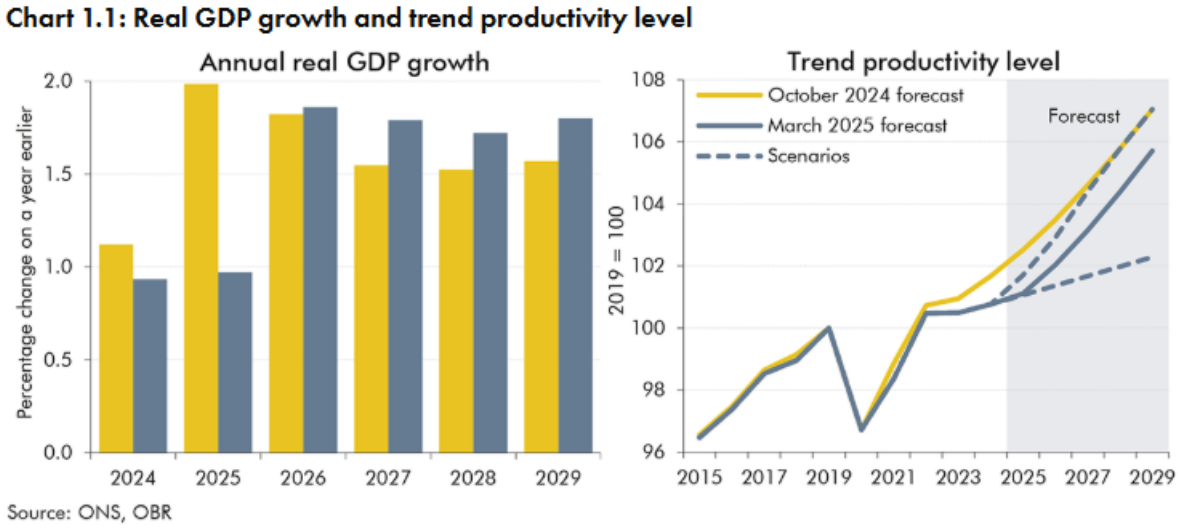
Table B1 - 5. Medium-term forecasts, November 2025

	2025	2026	2027	2028	2029
GDP growth (per cent)	1.5	1.2	1.4	1.4	1.4

B1.89. There is significant uncertainty around economic forecasts. For example, the Office for Budget Responsibility's "Economic and Fiscal Outlook" (March 2025) states, "*In our central forecast, real GDP is now projected to grow by 1.0 per cent in 2025, half the 2.0 per cent assumed in October…There remains considerable uncertainty about how to interpret recent developments in UK labour force, GDP, and productivity data, and in US and global trade policy".*[206] *Economic and Fiscal Outlook*" (March 2025) shows the March 2025 forecast alongside the October 2024 forecast for comparison (see figure xxx). Both forecasts show some growth, however the cumulative rate and change between each scenario to 2029 is marked.

B1.90. The Office for Budget Responsibility does not provide forecasts beyond 2029.

Figure 1. Real GDP growth and trend productivity: OBS November 2025



Relationships between waste source categories for Waste from Waste Management

B1.91. National planning practice guidance does not make specific reference to forecasting WfWM. In addition to considering the socio-economic factors outlined above to identify whether they support any assumptions about a reduction or growth in arisings, consideration will be given to whether there is a direct relationship between waste arising from other waste source categories or not.

B1.92. Given that WfWM arises directly from the management of other waste streams, it is likely that there will be some relationship. However, this might vary by waste source category or waste composition category and may be influenced by inefficiencies in processing or changes to the way in which waste is managed.

[206] Economic and fiscal outlook – March 2025 - Office for Budget Responsibility

B1.93. There is anecdotal evidence that some 'skip' waste which was previously coded as 17 01 17 "Mixtures of concrete, bricks and tiles" should now be coded as and 19 12 12 "other wastes (including mixtures of materials) from mechanical treatment of wastes", effectively moving it from the CDE&M waste source category to the WfWM waste source category.

Additional modelling in relation to MfH

B1.94. Forecasting scenarios for MfH are likely to be informed by additional work that will be undertaken in Spring 2026 to inform the development of an updated Municipal Waste Management Strategy (under Worcestershire County Council's Waste Management team).

B1.95. It is thought that Simpler Recycling will result in significant steps towards meeting the government ambition to recycle 65% of municipal waste by 2035, from national household recycling rates that have flatlined at 44% to 45% since 2015.[207] It is also likely to change the composition of municipal waste and could impact on the facilities that are needed. Due to the complexities of these issues and the ability to consider individual waste materials within the MfH waste source category in more detail in modelling for the Municipal Waste Management Strategy, the impacts of national targets for recycling, other recovery or disposal of municipal waste will be reviewed in the WNA once that information is available.

Other strategic issues identified

B1.96. Consideration will be given to any other cross-boundary strategic issues identified in the consultation on the WNA in Spring 2026.

[207] Simpler Recycling in England: policy update - GOV.UK

Next steps

B1.97. Following consultation on the methodology and results in Part A and the high-level principles for forecasting set out in this section (Part B), work will be undertaken to identify scenarios for forecasting likely future waste arisings.

B1.98. Once the scenarios have been developed, modelling will be undertaken to identify a range of forecast arisings for milestone years throughout and at the end of the plan period. This will inform the identification of forecast need for additional waste management capacity in **Part C**.

Part C: Forecasting Capacity Needs

C1. Proposed approach

C1.1. **Part A** identifies whether equivalent self-sufficiency in waste management capacity in Worcestershire was achieved in 2023 as the starting point for assessing whether existing capacity is likely to be adequate to manage the scale of waste arisings from Worcestershire over the life of the emerging Waste Plan. **Part B** will build on this baseline to identify a range of scenarios for forecasting levels of future waste arisings. Part C will consider forecast waste arisings against current capacity in order to identify the waste management capacity required to deal with forecast arisings during and at the end of the period covered by the Waste Plan. It will also take account of any strategic issues identified which may be relevant to capacity in Worcestershire.

C1.2. This section has not yet been written as the scenarios for forecasting waste arisings are yet to be finalised (see **Part B**). Once developed, the arisings scenarios will be used to identify a range for the quantum of waste management capacity needed at regular milestone intervals, throughout and at the end of the plan period.

C1.3. This will be based on the achievement of equivalent self-sufficiency. It will take account of the overall quantity of waste arising in the baseline year, forecast arisings in regular milestone years, and the quantity of waste arisings to be managed at each level of the waste management hierarchy. This will be compared to waste management capacity in Worcestershire in total and at each level of the waste management hierarchy.

C1.4. The following template will be used to show whether current capacity would be sufficient to manage forecast arisings for each milestone year or if additional capacity is required to achieve equivalent self-sufficiency.

Table C1 - 1. Template table for milestones (tonnes)

	General waste	Inert waste	Green waste, food waste, and sludges	End of Life Vehicles	Hazardous waste	Total
Treatment and Recycling						
Other recovery (Energy)						
Other recovery (to land)						
Disposal: Landfill						
Disposal: Incineration and Combustion						
Other						
Sorting and transfer						
Total						

C1.5. This is likely to form the basis for monitoring following adoption of the Waste Plan.

Glossary

Term	Definition
5-Year Peak Throughput	The highest annual tonnage of waste received at a site over the past five years, used to estimate operational capacity.
Anaerobic digestion (AD)	Anaerobic digestion is a biological process where microorganisms break down organic material in the absence of oxygen, producing biogas and a nutrient-rich residue called digestate.
Authorised Treatment Facilities (ATFs)	These facilities manage ELVs through processes that include the removal of hazardous components, fluids, and recyclable materials.
Capacity Gap	The shortfall between the amount of waste arising and the available waste management capacity.
Chemical treatment	The use of chemical processes to change the characteristics of waste to reduce its volume, lessen its hazardous nature, facilitate handling, or enhance recovery.
Circular economy	The circular economy model promotes using products and materials for as long as possible through local maintenance, repair, reuse, refurbishment, remanufacturing, and recycling, as well as lowering consumption and reducing resource use. It seeks to address the economic and environmental impacts of waste production, resource depletion, climate change and biodiversity loss, while addressing social needs and increasing resource security.[208]
Disposal	Final treatment of waste, including landfill and incineration without energy recovery.
Duty to co-operate	The Localism Act 2011 introduced a Duty to Co-operate, which is designed to ensure that all the bodies involved in planning work together on strategic matters that are of larger than local significance. The bodies bound by this duty include local planning authorities, county councils, LEPs and the Environment Agency. Evidence of co-operation is required to demonstrate the soundness of Development Plan documents. Such evidence might include joint plans or policies, a memorandum of understanding, or jointly prepared informal strategies.
Environmental permit	Environmental permits are required to operate a regulated facility. The Environment Agency regulates waste operations, water discharge operations, radioactive substances activities and the potentially more polluting Regulated Facilities. Local authorities regulate less polluting regulated facilities. “Environmental permit” is an overarching term that includes permits regulating installations, mobile plant, waste operations, mining waste operations, radioactive substances activity, water discharge activity, and groundwater activity. While some older permits are known as “licences” and the term “licence” remains in use for certain activities (including water

[208] The circular economy and sustainable manufacturing - POST

	abstraction), these licences are also covered under the umbrella term "environmental permit". (For more details see sections 8(1) and 13(1)(a) of The Environmental Permitting (England and Wales) Regulations 2010, SI 2010/675)
End of life vehicles (ELV)	Motor vehicles that have reached the end of their useful life and are no longer roadworthy or economically repairable. ELVs are typically dismantled, depolluted, and recycled at specialist facilities known as Authorised Treatment Facilities (ATFs).
Energy from Waste	Incineration where energy recovery is high-enough to achieve 'recovery' status under the EU Waste Directive R1 classification. Where incineration does not achieve this standard it is considered as disposal.
Equivalent Self-Sufficiency	A principle where a waste planning authority aims to plan for capacity that is equivalent to the waste that arises within its area, while allowing for cross boundary movements.
European Waste Catalogue (EWC) Codes	Standardised codes used to classify waste types across Europe, as set out in Directive 2008/98/EC of the European Parliament and of the Council, commonly known as the EU Waste Framework Directive
Fate of waste arisings	The WNA identifies the fate of waste arising based on the 'facility type' of the receiving waste management facility as recorded in the WDI, and applies the waste management categories set out in **Appendix 4** This approach is used rather than using the 'Fate' data recorded in the WDI, because using a consistent approach to applying waste management categories enables a direct comparison between arisings and capacity data.
General Waste	A waste composition category used in the WNA to refer to waste that is not hazardous, inert or green waste, sewage waste and sludges.
Green waste, food waste, and sludges	A waste composition category used in the WNA. It includes plant and vegetable waste from agriculture, food waste, waste from parks and gardens, and sludges from wastewater treatment.
Hazardous waste	Waste that contains properties that make it potentially harmful to human health or the environment. This includes materials that are toxic, flammable, corrosive, reactive, or otherwise dangerous. Hazardous waste requires specialised treatment and disposal methods. Hazardous waste is defined under Directive 2008/98/EC of the European Parliament and of the Council, commonly known as the EU Waste Framework Directive.
Inert Landfill	A type of landfill site that only accepts inert waste.
Inert waste	Waste that does not undergo significant physical, chemical, or biological transformations. It does not decompose, burn, or otherwise react and therefore poses minimal risk to the environment or human health. Common examples include concrete, bricks, tiles, ceramics, and soil and stones, typically arising from construction, demolition, excavation, and mineral (mining/quarrying) activities.
In-vessel composting	In-vessel Composting (IVC) is a means of treating food waste and green waste in an enclosed environment which has accurate temperature control and monitoring. It uses aeration and fans to pump air through the compost pile while it is in the composting vessel.
Landfill	Means disposal of waste onto or into land (i.e. underground)
Landfill Void Space	The remaining volume available at landfill sites for waste disposal, measured in cubic metres and converted to tonnes using standard factors.
Non-hazardous landfill	A type of landfill site that primarily accepts non-hazardous waste.

Non-hazardous landfill with SNRHW cell	A type of landfill site that primarily accepts non-hazardous waste but includes a dedicated cell for the disposal of Stable Non-Reactive Hazardous Waste (SNRHW), such as asbestos-containing materials. These sites are engineered to safely manage both waste types, with the hazardous waste confined to a separate, specially designed cell.
Other recovery	Waste management operations that recover value from waste but are not recycling, including energy recovery and recovery of waste to land.
Physical treatment	Physical treatment uses physical forces to separate, reduce the volume, or change the state of waste. Physical waste treatment includes techniques like sorting, shredding, crushing and dewatering.
Recovery of waste to land	Recovery of waste to land is when waste material is used in place of non-waste material to perform a function, such as land treatment resulting in benefit to agriculture or ecological improvement.
Recycling	Waste materials are reprocessed into new products, materials, or substances, whether for the original or other purposes. This process involves structural changes to the products, distinguishing it from mere reuse.
Residual waste	Waste that remains after recycling and re-use, typically managed through other recovery or disposal.
Scrap metal dealer	A business or individual engaged in the buying, selling, or processing of scrap metal. Scrap metal dealers must be registered under the Scrap Metal Dealers Act 2013 and may operate fixed sites or mobile collection services.
Stable Non-Reactive Hazardous Waste (SNRHW)	A sub-category of hazardous waste that is chemically stable and does not react under landfill conditions. It typically includes materials such as asbestos and certain construction products containing hazardous substances that pose minimal risk of leaching or degradation.
Strategic facilities	Waste management sites that play a strategic role in serving wider geographical areas beyond the local authority boundary.
Thermal treatment	Thermal treatment of waste is any process that uses heat to change the physical, chemical, or biological properties of waste, including incineration (combustion), gasification, and pyrolysis. These methods are used to reduce waste volume, destroy hazardous materials, and recover energy.
Waste composition category	Categories used in the WNA which are based on the material type: i.e. General Waste, Inert Waste, Green Waste, Food Waste & Sludges, End-of-Life Vehicles (ELVs), Hazardous Waste, Radioactive Waste (ee also waste stream).
Waste Data Interrogator (WDI)	An Environment Agency dataset recording waste received and removed at permitted waste facilities in England, used to assess arisings and capacity.
Waste Data Flow	A reporting system used by local authorities to record Local Authority Collected Waste (including municipal waste from households).
Waste exemptions	A waste exemption is a low-risk waste management activity that is exempt from needing an environmental permit. Some exemptions need to be registered and, where this is the case, they are recorded by the Environment Agency.
Waste management category	Broad categories of waste management facilities aligned with the waste management hierarchy. The re-use and recycling tier of the waste management includes 'Treatment and Recycling' and 'Transfer' facilities. The recovery tier of the waste management hierarchy includes' Energy from Waste' and 'recovery of waste to land' facilities. The disposal tier includes 'incineration and combustion' and 'landfill' facilities. The WNA also includes

	the category 'other' to account for facilities which do not fit into the other categories, such as mobile plant and lagoons.
Waste management hierarchy	The waste management hierarchy sets out the priority order for managing waste materials based on their environmental impacts. Priority goes to preventing the creation of waste in the first place, followed by preparing waste for reuse; to recycling, and then recovery. Disposal is regarded as the worst option.[209]
Waste management licence	A waste management licence is a legal document issued under the Environmental Protection Act 1990. A licence within the meaning of the Act is now known as a "permit". A licence authorises the treatment, keeping or disposal of waste in or on the land. Once a licence is issued, neither the activities nor the area of land may be changed unless the licence is modified. The Environmental Permitting Regulations regulating waste sites came into force on 6 April 2010.
Waste Needs Assessment (WNA)	A strategic assessment used by waste planning authorities to identify current and future waste management needs, capacity gaps, and to support planning for waste management infrastructure.
Waste source categories	Categories used in the WNA which are based on the origin of waste: i.e. 'Municipal', 'Commercial & Industrial' (C&I), 'Construction, Demolition, Excavation & Mineral' (CDE&M), 'Waste from Waste Management Facilities' (WfWM) and 'Wastewater Treatment' (see also waste stream).
Waste stream	Distinct category of waste, classified either by source (e.g. municipal, commercial & industrial, construction & demolition) or composition (e.g. general, inert, hazardous, green/food/sludges).
Waste transfer station	A facility where waste is temporarily stored, sorted, or bulked before being sent to another site for treatment or disposal.
West Midlands Resource Technical Advisory Body (WMRTAB)	The West Midlands Resource Technical Advisory Body (WMRTAB) is a group comprising waste planning and management officers of the Waste Planning Authorities (WPAs) in the West Midlands, the Environment Agency, representatives of industry including the waste management industry, and representatives of environmental organisations.
Windrow composting	Windrow Composting, also referred to as Open Air Windrow Composting involves placing shredded green waste in long, narrow piles called "windrows" that are then agitated or "turned" regularly. Windrow compositing is undertaken outside.

[209] Waste Management Plan for England 2021

Worcestershire Waste Needs Assessment: Appendices

Appendix 1: Waste Data used in this WNA

Appendix 1 Table 1. Waste Date used in WNA

Data set	Version or date viewed for live data
Waste Data Interrogator 2024 2024 Waste Data Interrogator	Version 1 published 19 September 2025
Waste Data Interrogator 2023 2023 Waste Data Interrogator	Version 1 published 25 September 2024
Waste Data Interrogator 2022 2022 Waste Data Interrogator	Version 4 published 11 July 2024
Waste Data Interrogator 2021 2021 Waste Data Interrogator	Version 3 published 13 May 2024
Waste Data Interrogator 2020 2020 Waste Data Interrogator	Version 6 published 13 May 2024
Waste Data Interrogator 2019 2019 Waste Data Interrogator	Version 4 published 25 November 2020
WasteDataFlow WasteDataFlow Waste Management	Accessed August 2025
Environment Agency Remaining Landfill Capacity data 2023 Remaining Landfill Capacity - data.gov.uk	Version 1 last updated 16 June 2025
Public Register of Environmental Permits for Waste Operations Environmental Permitting Regulations – Waste Operations	Accessed June 2025
Public Register of Environmental Permits for Installations Environmental Permitting Regulations – Installations	Accessed June 2025
Register of Scrap Metal Dealers Scrap Metal Dealers	Accessed June 2025
Register of Waste Exemptions Waste Exemptions	Accessed June 2025
Register of Authorised Treatment Facilities (ATF) for End of Life Vehicles (ELV) Environmental Permitting Regulations – End of Life Vehicles	Accessed June 2025

Note: Waste Data Interrogator 2024 was available when this WNA was published. This is used for **Section A3 Strategic Movements** as the WDI data can be used without the consideration of any

other data. The rest of the WNA uses 2023 data as the most recent year and this is the last year for which all datasets were available (WasteDataFlow Data for 2024 had not yet been published).

Appendix 2: Waste streams by EWC code

Municipal waste

General municipal waste

- The following wastes in '20 01 separately collected fractions'
    - 20 01 01 paper and cardboard
    - 20 01 02 glass
    - 20 01 10 clothes
    - 20 01 11 textiles
    - 20 01 25 edible oil and fat
    - 20 01 28 paint, inks, adhesives and resins other than those mentioned in 20 01 27
    - 20 01 30 detergents other than those mentioned in 20 01 29
    - 20 01 32 medicines other than those mentioned in 20 01 31
    - 20 01 34 batteries and accumulators other than those mentioned in 20 01 33
    - 20 01 36 discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
    - 20 01 38 wood other than that mentioned in 20 01 37
    - 20 01 39 plastics
    - 20 01 40 metals
    - 20 01 41 wastes from chimney sweeping
    - 20 01 99 other fractions not otherwise specified
- The following wastes in '20 02 garden and park wastes (including cemetery waste)'
    - 20 02 03 other non-biodegradable wastes
- The following wastes in '20 03 other municipal wastes'
    - 20 03 01 mixed municipal waste
    - 20 03 02 waste from markets
    - 20 03 03 street-cleaning residues
    - 20 03 06 waste from sewage cleaning

- 20 03 07 bulky waste
- 20 03 99 municipal wastes not otherwise specified ^

Inert municipal waste

- The following wastes in '20 02 garden and park wastes (including cemetery waste)'
  - 20 02 02 soil and stones

Municipal green waste, food waste, and sludge

- The following wastes in '20 01 separately collected fractions'
  - 20 01 08 biodegradable kitchen and canteen waste ^
- The following wastes in '20 02 garden and park wastes (including cemetery waste)'
  - 20 02 01 biodegradable waste
- The following wastes in '20 03 other municipal wastes'
  - 20 03 04 septic tank sludge

End of life vehicles (ELV)

No municipal waste is the ELV waste composition category.

Hazardous municipal waste

- The following wastes in '20 01 separately collected fractions (except 15 01)'
  - 20 01 13* solvents
  - 20 01 14* acids
  - 20 01 15* alkalines
  - 20 01 17* photochemicals
  - 20 01 19* pesticides
  - 20 01 21* fluorescent tubes and other mercury-containing waste
  - 20 01 23* discarded equipment containing chlorofluorocarbons
  - 20 01 26* oil and fat other than those mentioned in 20 01 25
  - 20 01 27* paint, inks, adhesives and resins containing dangerous substances
  - 20 01 29* detergents containing dangerous substances
  - 20 01 31* cytotoxic and cytostatic medicines
  - 20 01 35* discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components
  - 20 01 37* wood containing dangerous substances

Commercial and Industrial waste (including agricultural waste)

General C&I waste

- All wastes in '02 wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing (excluding hazardous waste and 02 01 03 plant-tissue waste, 02 07 04 and 02 07 99)'.
- All wastes in '03 Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard (excluding hazardous waste)'.
- All wastes in '04 wastes from the leather, fur and textile industries (excluding hazardous waste)'.
- All wastes in '05 wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal (excluding hazardous waste, 02 07 04 and 02 07 99)'.
- All wastes in '06 wastes from inorganic chemical processes (excluding hazardous waste)'.
- All wastes in '07 wastes from organic chemical processes (excluding hazardous waste)'.
- All wastes in '08 wastes from the manufacture, formulation, supply and use (mfsu) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks (excluding hazardous waste).'
- All wastes in '09 wastes from the photographic industry (excluding hazardous waste)'.
- All wastes in '10 wastes from thermal processes (excluding hazardous waste)'.
- All wastes in '11 wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydrometallurgy (excluding hazardous waste)'.
- All wastse in '12 wastes from shaping and physical and mechanical surface treatment of metals and plastics (excluding hazardous waste)'.
- All wastes in '15 waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified (excluding hazardous waste)'.
- The following wastes in '16 wastes not otherwise specified in the list (excluding hazardous waste)'.
    - 16 03 off-specification batches and unused products
    - 16 05 gases in pressure containers and discarded chemicals
    - 16 06 batteries and accumulators
    - 16 07 wastes from transport tank, storage tank and barrel cleaning (except 05 and 13)
    - 16 08 spent catalysts
    - 16 10 aqueous liquid wastes destined for off-site treatment

    - 16 11 waste linings and refractories
    - 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries ^
- All wastes in '18 wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care) (excluding hazardous waste).'

Inert C&I waste

No C&I waste is in the inert waste composition category.

C&I green waste, food waste and sludges

- The following wastes in '02 wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing'
    - 02 01 03 plant-tissue waste
- The following wastes in '07 wastes from organic chemical processes (excluding hazardous waste).'
    - 02 07 04 materials unsuitable for consumption or processing
    - 02 07 99 wastes not otherwise specified

End of life vehicles

- The following wastes in '16 wastes not otherwise specified in the list (excluding hazardous waste).'
    - 16 01 end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08).

Hazardous C&I waste

All Hazardous waste codes within the following EWC Chapters:

- 02 wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing.
- 03 Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard.
- 04 wastes from the leather, fur and textile industries.
- 05 wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal.
- 06 wastes from inorganic chemical processes.
- 07 wastes from organic chemical processes.
- 08 wastes from the manufacture, formulation, supply and use (mfsu) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks.

- 09 wastes from the photographic industry.
- 10 wastes from thermal processes.
- 11 wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydrometallurgy.
- 12 wastes from shaping and physical and mechanical surface treatment of metals and plastics.
- 13 oil wastes and wastes of liquid fuels (except edible oils, and those in chapters 05, 12 and 19)
- 14 waste organic solvents, refrigerants and propellants
- 15 waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified.
- 16 wastes not otherwise specified in the list.
- 18 wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care).

Construction, Demolition, Excavation and Mineral Waste

General CDE&M waste

All non-hazardous waste codes within the following EWC Chapters not listed in the 'Inert CDE&M waste' section below.

- 01 Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals.
- 17 Construction and demolition wastes (*excluding those already listed in "Non-hazardous Construction Demolition, Excavation and Mineral waste: Inert" below*).

Inert CDE&M waste

- The following wastes in '17 Construction and demolition wastes'.
    - 17 01 01: concrete
    - 17 01 02: bricks
    - 17 01 03: tiles and ceramics
    - 17 01 07: mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
    - 17 05 04: soil and stones other than those mentioned in 17 05 03*

CDE&M green waste, food waste and sludges

No CDE&M waste is in the green waste, food waste and sludges waste composition category.

Hazardous Construction, Demolition, Excavation and Mineral Waste

All Hazardous waste codes within the following EWC Chapters:

- 01 Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals.
- 17 Construction and demolition wastes.

Waste from waste management

General waste from waste management

- All non-hazardous waste codes within the following EWC Chapters not listed in the 'Green waste, food waste and sludges from waste management' section below.
    - 19 01 Wastes from incineration or pyrolysis of waste
    - 19 02 Wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
    - 19 03 Stabilised/solidified wastes
    - 19 04 Vitrified waste and wastes from vitrification
    - 19 05 wastes from aerobic treatment of solid wastes *(except 19 05 03)*
    - 19 08 wastes from wastewater treatment plants not otherwise specified19 08 01 Screenings *(except 19 08 05)*
    - 19 09 Wastes from the preparation of water intended for human consumption or water for industrial use
    - 19 11 Wastes from oil regeneration
    - 19 12 Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified (except 19 12 09)
    - 19 13 Wastes from soil and groundwater remediation
- The following wastes from '19 07 landfill leachate'
    - 19 07 03 Landfill leachate other than those mentioned in 19 07 02
- The following wastes from '19 10 waste from shredding of metal-containing wastes'
    - 19 10 01 Iron and steel waste

Inert waste from waste management

- 19 12 09 minerals (for example sand, stones)

Green waste, food waste and sludges from waste management

- 19 05 03 Off-specification compost
- 19 08 05 Sludges from treatment of urban waste water

Hazardous waste from waste management

- All hazardous waste codes within the following EWC Chapters
    - 19 01 Wastes from incineration or pyrolysis of waste
    - 19 02 Wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
    - 19 03 Stabilised/solidified wastes
    - 19 04 Vitrified waste and wastes from vitrification
    - 19 07 Landfill leachate
    - 19 08 wastes from wastewater treatment plants not otherwise specified
    - 19 11 Wastes from oil regeneration
    - 19 12 Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
    - 19 13 Wastes from soil and groundwater remediation
- The following wastes from ’19 10 waste from shredding of metal-containing wastes’
    - 19 10 01 Iron and steel waste

Appendix 3: WasteDataFlow material type

3.1. Each entry in the WasteDataFlow includes a "material type". To enable this data to be used alongside the WDI which presents data by EWC code, Worcestershire County Council's planning team, in consultation with the council's municipal Waste Management Team, have assigned each material type used in WasteDataFlow an assumed EWC code. This is the EWC code which is the closest match for the waste material type.

3.2. These were then cross-checked against the methodology applied to the WDI to split into 'Inert', 'Green waste, food waste and sludges', 'Hazardous', and 'General' municipal waste, as shown in the tables below:

Appendix 3 Table 1. WDF material type considered as municipal waste from households in the WNA

WDF "material type"	Closest/assumed EWC Code	Waste Composition Category for WNA
Aluminium cans	20 01 40	General municipal waste
Automotive batteries	20 01 33	Hazardous municipal waste
Card	20 01 01	General municipal waste
Furniture	20 03 07	General municipal waste
Green garden waste only	20 02 01	Municipal green waste, food waste and sludges
Ink & toner cartridges	20 01 27*	Hazardous municipal waste
Mineral Oil	20 01 26	Hazardous municipal waste
Mixed cans	20 01 04	General municipal waste
Mixed glass	20 01 02	General municipal waste
Mixed paper & card	20 01 01	General municipal waste
Mixed plastics	20 01 39	General municipal waste
Other compostable waste	20 02 01	Municipal green waste, food waste and sludges
Other materials	20 03 01	General municipal waste
Other Scrap metal	20 01 40	General municipal waste
Post consumer, non-automotive batteries	20 01 33*	Hazardous municipal waste
Rubble	20 02 02	Inert municipal waste
Soil	20 02 02	Non-hazardous waste: Inert Waste
Steel cans	20 01 04	General municipal waste
Textiles & footwear	20 01 10 or 20 01 11	General municipal waste
WEEE - Flourescent tubes and other light bulbs	20 01 21*	Hazardous municipal waste
WEEE - Fridges & Freezers	20 01 23*	Hazardous municipal waste
WEEE - Small Domestic App	20 01 35	Hazardous municipal waste
WEEE - TVs & Monitors	21 01 35	Hazardous municipal waste
Wood	20 01 38	General municipal waste

Appendix 3 Table 2. WDF material type NOT considered as municipal waste from households in the WNA

WDF "material type"	Closest/assumed EWC Code
Bicycles	16 05 04
Gas bottles	16 05 04
Incinerator Bottom Ash	19 01 12
Metals from Incinerator Bottom Ash	19 01 12
Mixed tyres	16 01 03
Plasterboard	17 08 02

Appendix 4: Waste management categories

Reuse and recycling

Appendix 4 Table 1. Reuse and Recycling

WNA waste management category	WDI Facility Type
Associated processes	Associated processes
Biodegradable waste treatment	Anaerobic Digestion Biological Treatment Composting[209] Mechanical Biological Treatment
End of Life vehicle facilities	Car Breaker Vehicle depollution facility
Metal Recycling and reprocessing	Ferrous Metal re-processing Metal Recycling Non-Ferrous Metal reprocessing
Physical/Chemical Treatment	Chemical Treatment Physical Treatment Physical-Chemical Treatment Paper and Pulp Reprocessing Paper Recycling
Transfer/Treatment	Clinical Waste Transfer / Treatment Haz Waste Transfer / Treatment Inert Waste Transfer / Treatment Material Recycling Facility Non Haz Waste Transfer / Treatment
Use of waste	Construction Timber Manufacturing
WEEE treatment facility	WEEE treatment facility

Other recovery

Energy from waste

Appendix 4 Table 2. Energy from waste

WNA waste management category	WDI Facility Type
Incineration with high levels of energy recovery	The following WDI facility types will be included in this sub-category where they achieve recovery (R1, R2, or R3) status evidenced in the WDI, or where other evidence indicates they have reached recovery (R1, R2, or R3) status:

[209] Amendments to the Waste Framework Directive (Directive (EU) 2018/851 of the European Parliament and of the Council, 30 May 2018, Article 48) Anaerobic Digestion can be considered as recycling where a product such as digestate is produced as part of the process.

	EFW Incinerator Gas Engine Municipal Waste Incinerator Animal By-Products Incinerator Clinical Waste Incinerator Co-Incinerator Co-Incinerator (Haz) Combustion Hazardous Waste Incinerator Incineration

Recovery of waste to land

Appendix 4 Table 3. Recovery of waste to land

WNA waste management category	WDI Facility Type
Deposit of waste to land	Deposit of waste to land (recovery)
Other	Recovery of Waste

Storage and transfer

Appendix 4 Table 4. Storage and transfer

WNA waste management category	WDI Facility Type
Household waste recycling centre	CA Site
Storage	In-House storage Storage - oils Storage - A/D Storage - Incinerator Storage - Metal Reprocessing Temporary storage installation
Transfer	Clinical Waste Transfer Haz Waste Transfer Inert Waste Transfer Non-Haz Waste Transfer

Disposal

Incineration and combustion

Appendix 4 Table 5. Incineration and combustion

WNA waste management category	WDI Facility Type
Combustion / Incineration with limited energy recovery	The following WDI facility types will be included in this sub-category where they **do not** achieve recovery (R1, R2, or R3) status evidenced in the WDI, or where other evidence indicates they have reached recovery (R1, R2, or R3) status: EFW Incinerator Gas Engine Municipal Waste Incinerator Animal By-Products Incinerator

	Clinical Waste Incinerator Co-Incinerator Co-Incinerator (Haz) Combustion Hazardous Waste Incinerator Incineration

Landfill

Appendix 4 Table 6. Landfill

WNA waste management category	WDI Facility Type
Landfill	Hazardous Merchant LF Hazardous Restricted LF Inert LF Non Haz (SNRHW) LF Non-Hazardous LF Restricted LF

Other

Appendix 4 Table 7. Other

WNA waste management category	WDI Facility Type
Mobile Plant	Mobile Plant - Landspreading Mobile Plant - Unknown Mobile Plant - Treatment
Other	Animal and Food Waste Lagoon Mining Waste Management Non-specified Treatment Organic Chemicals Pet Cemetery and Crematoria

Appendix 5: Exemptions

Overview

5.1. A waste exemption is a waste operation that is exempt from needing an environmental permit. Exemptions *"provide a light-touch form of regulation for small-scale, low risk waste management activities"*.[210] Exemptions are for activities where the risk [to health or the environment] has been assessed as low on the basis of that activity alone.[211]

5.2. Each exemption has specific limits and conditions. Each registration lasts three years and will then expire unless renewed.[212] Sites that operate under an exemption from the environmental permitting regime are not obliged to report on the amount of waste they handle. Exemptions are currently split into 59 alphanumeric categories, divided as follows:

- U (Use of waste): U1 - U16
- T (Treatment): T1 - T33 (but not T22, which no longer exists)
- S (Storage): S1 - S3
- D (Disposal): D1 – D8

5.3. Changes to the current exemptions regime are proposed213 to remove exemptions U16 (Use of depolluted end-of-life vehicles for parts); T8 (Mechanically treating end-of-life tyres); and T9 (Recovery of scrap metal); and to prohibit the use of waste exemptions at sites with an environmental permit. In addition, amendments are proposed to a further six exemptions, as well as changes to improve the information collected about exemptions when they are registered, and changes to limit the maximum storage on a site to the lowest limit set out in a registered exemption. These changes were anticipated to come into force at different times during 2024 and 2025, but no changes occurred in 2025, and timescales for implementation are yet to be finalised.[214]

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[210] https://consult.defra.gov.uk/waste/crime-and-poor-performance-in-the-waste-sector/user_uploads/part-b-1.pdf

[211] Defra, 'Reducing crime at sites handling waste, and introducing fixed penalties for waste duty of care: Consultation outcome, Supplementary government response', Updated 6 October 2023. Available at https://www.gov.uk/government/consultations/reducing-crime-at-sites-handling-waste-and-introducing-fixed-penalties-for-waste-duty-of-care/outcome/supplementary-government-response#:~:text=Waste%20exemptions%20are%20for%20activities,carried%20out%20on%20the%20site.

[212] https://www.gov.uk/government/collections/waste-exemptions-using-waste

[213] Defra, 'Reducing crime at sites handling waste, and introducing fixed penalties for waste duty of care: Consultation outcome, Supplementary government response', Updated 6 October 2023. Available at https://www.gov.uk/government/consultations/reducing-crime-at-sites-handling-waste-and-introducing-fixed-penalties-for-waste-duty-of-care/outcome/supplementary-government-response#:~:text=Waste%20exemptions%20are%20for%20activities,carried%20out%20on%20the%20site.

[214] At the time of preparing this paper, December 2025.

National policy and guidance

5.4. There is no policy on waste exemptions in either the National Planning Policy Framework or the National Planning Policy for Waste.

5.5. The 'Waste' chapter of the Planning Practice Guidance (2014) suggests that "Some assessment of maximum capacity [of exempt sites] may be made through reference to the maximum amounts of waste permitted under the exemption … If a waste planning authority is concerned that exempt sites are having a significant impact on local capacity, it may wish to investigate this further." [215]

5.6. WCC has considered how to identify exempt capacity in the context of national policy and nationally available datasets.

National methodology

5.7. The 'New Methodology to Estimate Waste Generation by the Commercial and Industrial Sector in England 2014' set out a method used by Defra to estimate commercial and industrial (C&I) waste arisings in England from existing data sources without the need to undertake extensive surveys of the C&I sector. This method was superseded in 2018 and the new methodology no longer attempts to estimate arisings managed under exemptions[216], however there were no corresponding changes to the *Waste* chapter of the Planning Practice Guidance (PPG).

Approach to exemptions in the WNA

Arisings

5.8. The WNA does not consider waste managed at exempt facilities when estimating waste arisings. This is consistent with the approach currently taken by Defra to estimating C&I waste arisings which "*makes no attempt to estimate waste processed under exemption that is not captured within the recycling data at end-point"*[217]. This is based on the rationale that most waste will move to/from exempt sites to/from sites with a waste management licence and will therefore be recorded in the WDI dataset that is being used to estimate arisings. There are some risks in this assumption, as it could underestimate arisings. However, Defra conclude that the tonnages calculated under this methodology represent "*the best estimate we can produce from the available data."*

5.9. Worcestershire County Council fully considered the number and types of exemptions in the county and explored an approach to estimating the maximum quantity of waste allowed to be managed under each registered exemption. Officers came to the view that this would be misleading; the variation in the way in which the maximum tonnages are given in many exemption categories (some as tonnes per annum, some as tonnes per hour and some as

[215] Paragraph: 025 Reference ID: 28-025-20141016. Revision date: 16 10 2014

[216] Defra/Government Statistical Service (October 2018) Commercial and Industrial Waste Arisings Methodology Revisions for England

[217] Defra/Government Statistical Service (October 2018) Commercial and Industrial Waste Arisings Methodology Revisions for England

maximum quantity of waste on site at any one time) is so great that it would risk extreme over-estimation of actual throughput.

5.10. It would be impractical to survey all 2,203 sites in Worcestershire[218] with registered exemptions to identify their actual throughput, and data may not be available from every site as there is no requirement for this to be recorded. It is also not possible to identify if any sites outside of Worcestershire with exemptions manage waste arising in Worcestershire.

Capacity

Waste sites list

5.11. In 2023, Over 30% of waste management sites in Worcestershire had registered exemptions[219].

Capacity calculations

5.12. In 2023, 23% of the sites on the waste sites list with registered exemptions also had a waste management licence (24 sites) but nine sites with planning permission or lawful use rights for waste use operated solely under exemption(s) and did not have a waste management licence (9% of all sites). It is not currently possible to identify the contributions waste managed under these exemptions makes towards waste management capacity in the county, as sites are not obliged to report on the amount of waste they handle under exemptions.

5.13. As with arisings, Worcestershire County Council considered estimating the quantities of waste handled under each exemption but could not identify a robust basis on which to do this, especially given that the Defra methodology no longer attempts to estimate arisings managed under certain exemptions.

5.14. Worcestershire County Council also considered contacting the 33 waste management sites with exemptions to ask for the details on the throughput of waste managed under their exemptions. However, as sites that operate under an exemption from the environmental permitting regime are not obliged to report on the amount of waste they handle, and less than 20% of sites with registered exemptions had a condition relating to recording throughput as part of their planning permission, it was considered likely that the quality and availability of the information would be variable. In any case it is unlikely that operators would be able to provide details about the waste source and composition categories. In addition, approximately a third of the exemptions at sites in the waste sites list relate to storage, where exemption limits relate to the quantity of material on site at any one time, rather than the quantities managed per annum.

5.15. If the approach to capacity in the WNA included information provided by operator surveys, there would need to be high response rates, a high level of confidence in the data provided, and a high level of confidence that this could and would be provided annually. It was considered that, on balance, the overall impact of exemptions on the need to plan for waste management infrastructure in Worcestershire is likely to be minimal, as less than 2% of total registered exemptions in Worcestershire are at sites with planning permission for waste uses. The majority of exempt operations take place at sites primarily used for non-waste management purposes, including agricultural and other commercial and industrial purposes.

[218] As at January 2024.

[219] 33 sites.

5.16. On this basis, the capacity baseline identified in the WNA does not include waste managed at facilities operating solely under exemption(s), because the throughput of such sites is not recorded in the WDI. Sites that have both permits *and* one or more exemptions will appear in the WDI, and therefore their throughput will be included in the WNA capacity baseline. It is possible that some of the throughput recorded from sites in the WDI with both permits and exemptions could come from exempt activities, but there is no data on this split. For the purposes of the WNA, it is assumed that all the throughput in the WDI is from permitted capacity and none of the throughput is from exempt activities. This approach enables consistency by excluding exemptions from the calculation of both arisings and capacity, it reduces the risk of under - or over- estimating the capacity gap.

5.17. It is likely that the uncertainty over exempt capacity will be significantly reduced once changes to the exemptions regime come into force, as sites with environmental permits will no longer be able to hold exemptions and will need to provide data on all waste managed at the site. Especially as the ability to hold an exemption on a site with another Environmental Permit is being removed.

5.18. Twenty waste sites in Worcestershire do not currently have an environmental permit. Of these, nine sites have exemptions. Eight of the nine sites with exemptions include one or more exemption categories that are due to be removed or tightened[1], and it is therefore likely that the throughput data from those exemptions will become available in due course through the WDI. Seven of the nine sites without EA permits but which have exemptions, include exemptions for the storage of waste, where annual throughput is likely to be variable, and two of these seven sites also include exemptions relating to agricultural processes or spreading waste, where capacity is less likely to be in the form of annual throughput[2]. The remaining exemption categories registered at sites without EA permits are for 'T1: treating certain waste to reuse or recycle', 'T4: storing and preparing for further treatment ', 'T5: treat waste on a small scale to produce aggregate or soil at a particular location, such as a construction or demolition site', 'T6: Treating waste wood and waste plant matter by chipping, shredding, cutting or pulverising at one site', 'T20: treating waste at a water treatment works', 'T23: aerobic composting', 'T32: treating waste in a biobed or biofilter', 'D1: depositing waste from dredging inland waters', 'D6: incinerating waste produced on site', 'U4: burning waste as fuel in a small appliance' and 'U12: using mulch'.

5.19. The results of the forthcoming changes to the exemptions regime will be examined and discussed in updates to the WNA.

Forecasting

5.20. The *Waste* chapter of the Planning Practice Guidance (2014) includes a specific statement that *"when forecasting construction and demolition waste arisings, the following may be relevant* [including] *the fact that a sizeable proportion of construction and demolition waste arisings are managed or re-used on-site, or exempt sites, so it is critical that some provision is made for unseen capacity in this way"*. WCC notes that 14.4% of registered exemptions in Worcestershire (as of January 2024) are for U1 (Use of waste for construction), totalling 1,203 sites, and that U1 is the second most common exemption at sites with planning permission for a waste management use. Under the exemption reforms discussed above, U1 exemptions will become more restrictive, and this is likely to lead to increasing CDE&M waste arisings appearing on the Waste Data Interrogator. However, other than in

[1] D7, T8, T9, U1

[2] T24, U10, U13, D4

acknowledging that this is part of the picture of how construction and demolition wastes are managed, officers are unable to make any meaningful calculations about the impact this is likely to have on forecast arisings (or capacity requirements).

5.21. Forthcoming changes to the exemptions regime will mean that more information will be gathered from registered exemptions in future and the changes are highly likely to lead to increased tonnages of waste appearing in the Waste Data Interrogator, as waste formerly managed through exempt operations becomes managed at permitted facilities. This will provide a more robust indicator of the scale of formerly exempt operations for certain waste streams, but is likely to mean that data will not be comparable with past years. Until these tonnages are recorded, WCC cannot properly assess their impact on trend data and projections, but the WNA and future monitoring will remain mindful of this. Whilst changes to the exemptions regime will "introduce a requirement for operators to keep and make records available on request for all exemptions"[220], it is not yet clear whether this data will be made available to Waste Planning Authorities.

Monitoring

5.22. The *Waste* chapter of the Planning Practice Guidance (2014) states that *"Monitoring should also address the capacity of permitted and registered exempt sites".* WCC will consider whether it is useful to identify the number, location, and type of exemptions registered in Worcestershire, although the need to do so may diminish once changes to the exemptions regime are in place.

Conclusion

5.23. Whilst the role of exemptions is recognised, due to a lack of data and low confidence levels in assumptions about the amount of waste managed under exemptions, this cannot be robustly quantified. As such, exemptions will not influence our calculations of waste arisings or waste management capacity.

5.24. Permitted throughput recorded on the Waste Data Interrogator remains the primary evidence of arisings and capacity when planning for waste needs, but some flexibility should be considered in developing a policy approach and/or monitoring indicators to ensure that any implications from forthcoming changes to tighten the exemptions regime can be accommodated or addressed. In particular, the removal of some exemptions and changes to prevent exemptions being used on sites with a waste management licence may see increases in waste recorded through the WDI.

[220] 'Reforming Waste Exemptions: Annexure: Annex 8 – Technical amendments to the Environmental Permitting Regulations', available at: https://assets.publishing.service.gov.uk/media/65201b3c2548ca0014ddeec0/waste_exemptions_government_response_annex.pdf

Appendix 6: List of waste sites in Worcestershire for the purposes of the WNA

The location of these sites can be viewed on the accompanying web map at www.worcestershire.gov.uk/wasteplanningpolicy

Appendix 6 Table 1. List of waste sites in Worcestershire for the purposes of the WNA

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS001	407343, 268857	Kaug Refinery Services, Redditch	Merse Road, Redditch	B98 9HL	Treatment/ Recycling	0.28	N/A	This is a newly permitted site which does not exist in the latest WDI dataset
WWS002	409587, 276578	365 Tipper Hire Ltd, Hollywood	Unit 7, Houndsfield Industrial Estate, Houndsfield Lane, Hollywood, Birmingham	B47 5QX	Treatment/ Recycling	0.15	N/A	This site has not been reported in the WDI in the last 5 years
WWS003	408199, 272090	Portway Motor Services Ltd, Alvechurch	Old Alcester Road, Portway, Alvechurch, Birmingham	B48 7HX	Treatment/ Recycling	0.16	N/A	This site has not been reported in the WDI in the last 5 years

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS004	403153, 271661	Lye Bridge County Highways Depot, Redditch	Redditch Road, Alvechurch, Birmingham	B48 7RT	Treatment/ Recycling	0.07	WP3199VU 102629	1,060
WWS005	396087, 268419	Bromsgrove District Council Bulking Bay and Transfer Station, Bromsgrove	Aston Road, Aston Fields Industrial Estate, Bromsgrove	B60 3EX	Storage and transfer	0.43	VP3099CG 46183	47,208
WWS006	394969, 267043	Total Metal Recovery Ltd, Stoke Prior	138 Hanbury Road, Stoke Prior, Bromsgrove	B60 4JZ	Treatment/ Recycling	0.42	HB3706FE 406470	10,890
WWS007	394978, 267059	A-Z Skips, Stoke Prior	138 Hanbury Road, Stoke Prior, Bromsgrove	B60 4JZ	Storage and transfer	0.63	WP3099CK 46194	12,030
WWS008	395321, 275952	Wildmoor Grabaway Ltd, Wildmoor	Dolfor House, Wildmoor Quarry, Sandy Lane, Wildmoor, Bromsgrove	B61 0QR	Treatment/ Recycling	0.56	WE2787AB 120497	26,125
WWS009	395296, 276247	Sandy Lane Landfill Site, Wildmoor	Sandy Lane, Wildmoor, Bromsgrove	B61 0QT	Disposal (including incineration without energy recovery)	15.44	VP3036GQ	This site has an environmental permit but has not been reported in the WDI in the last 5 years

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS011	403914, 261412	S.E. Davis & Son Ltd, Astwood Bank	Sandhills Farm, Edgioake Lane, Astwood Bank, Redditch	B96 6BG	Treatment/ Recycling	1.62	AB3007ST 400331	29,658
WWS012	399265, 260027	Priest Bridge Composting, Astwood Bank	Land near Priest Bridge Reclamation Works, Dark Lane, Astwood Bank	B96 6RW	Treatment/ Recycling	0.9	N/A	This site has not been reported in the WDI in the last 5 years
WWS013	403884, 268063	Sims/Unimetals, Land At Hewell Road, Redditch	Hewell Road, Redditch	B97 6AN	Treatment/ Recycling	0.74	FB3030DC 48224	7,580
WWS014	388436, 272679	Midland Plastic Recycling	Longmore Farm, Cakebole, Chaddesley Corbett	DY10 4RE	Treatment/ Recycling	0.08	N/A	This site has not been reported in the WDI in the last 5 years
WWS015A	403282, 269583	Redditch Skip Hire Ltd at Weights Farm, Redditch	Weights Farm, Weights Lane, Redditch	B97 6RG	Treatment/ Recycling	3.25	GB3108GG 404765	5,840
WWS015B	403396, 269349	Redditch Skip Hire Ltd at Weights Farm, Redditch	Unit 21, Weights Farm, Weights Lane, Redditch	B97 6RG	Storage and transfer	0.33	GP3998CK 48235	32,908
WWS016	402880, 269462	Landfill at Weights Farm, Redditch	Weights Farm, Weights Lane, Redditch	B97 6RG	Disposal (including incineration without energy recovery)	5.59	BV3995IE 210034	11,214

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS017	405786, 265995	Ashvin Metals, Redditch	Securehold Business Centre, Studley Road, Redditch	B98 7LG	Treatment/ Recycling	0.52	N/A	This site has not been reported in the WDI in the last 5 years
WWS018	406234, 265451	Redditch Household Waste Site, Redditch	Crossgate Road, Park Farm Industrial Estate, Redditch	B98 7SN	Storage and transfer	0.69	SP3798CV 48182	51,651
WWS019	406273, 265336	Redditch Bulking Bays, Redditch	Crossgate Road, Park Farm Industrial Estate, Redditch	B98 7SN	Storage and transfer	0.24	TP3198CU 48270	11,797
WWS020A	406234, 264702	Redditch Clinical Waste Treatment Facility, Redditch	The Incinerator, Alexandra Hospital, Woodrow Drive, Redditch	B98 7UB	Disposal (including incineration without energy recovery)	0.51	EPR/VP3136ZD	This site has an environmental permit but has not been reported in the WDI in the last 5 years

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS020B	406234, 264702	Redditch Clinical Waste Treatment Facility, Redditch	The Incinerator, Alexandra Hospital, Woodrow Drive, Redditch	B98 7UB	Treatment/ Recycling	0.51	EPR/VP3136ZD	This site has an environmental permit but has not been reported in the WDI in the last 5 years
WWS021	405636, 267242	Arrow Metals, Redditch	Unit 58C, Arthur Street, Redditch	B98 8JY	Treatment/ Recycling	0.03	PP3221SJ 600430	This site has an environmental permit but has not been reported in the WDI in the last 5 years
WWS022	405299, 267890	Delrene Motors, Redditch	Brook Street, Redditch	B98 8NG	Treatment/ Recycling	0.18	N/A	This site has not been reported in the WDI in the last 5 years
WWS023	405275, 267936	A&S Skips at Arrow Road Recycling Centre, Redditch	Arrow Road North, Lakeside, Redditch	B98 8NT	Storage and transfer	0.06	BB3606KC 400816	2,800
WWS024	405479, 267544	Redditch Vehicle Recycling Ltd, Redditch	Unit 4, Lakeside Trading Centre, Beoley Road East, Redditch	B98 8PE	Treatment/ Recycling	0.02	N/A	This site has not been reported in the WDI in the last 5 years

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS025	406206, 269530	Craddock Metal Recycling Limited, Redditch	Clevedon Farm, Icknield Street, Beoley, Redditch	B98 9AH	Treatment/ Recycling	0.33	UP3498CC 48213	1,135
WWS026	408658, 271042	Former ACD/Reservoir Motors site, Redditch	High Park Wood, Alcester Road, Beoley, Redditch	B98 9DT	Treatment/ Recycling	0.69	N/A	This site has not been reported in the WDI in the last 5 years
WWS027	378621, 251599	Pencroft Ltd, Leigh Sinton	Recycling Centre, Guiness Business Park, Leigh Sinton, Malvern	WR13 5EQ	Treatment/ Recycling	3.89	N/A	This site has not been reported in the WDI in the last 5 years
WWS028	415380, 246041	IMCR (International Metals and Cable Recycling), Long Marston	Long Marston Works, Sharry Lane, Long Marston, Stratford-upon-Avon	CV37 8AQ	Treatment/ Recycling	1.13	WE6558AA 120181	15,544
WWS029	415379, 245927	Unimetals, Long Marston	Long Marston, Stratford-upon-Avon	CV37 8AQ	Treatment/ Recycling	2.06	BP3698CY 48167	126,254
WWS030	415483, 246033	MRW (Midlands Reclamation and Waste) Limited, Long Marston	Long Marston Road, Long Marston, Stratford-upon-Avon	CV37 8AQ	Storage and transfer	2.18	XP3798CY 48231	25,110

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS031	383124, 275848	Green Street Depot, Kidderminster	Green Street, Kidderminster	DY10 1HA	Storage and transfer	1.21	NP3099CQ 46151	9,145
WWS032	383062, 275034	Carmas 96, Kidderminster	Plot A Road 2 Hoobrook Industrial Estate, Kidderminster	DY10 1HY	Treatment/ Recycling	0.21	EP3899CX 46176	284
WWS033	383186, 274789	Kidderminster Household Recycling Centre, Kidderminster	Off Worcester Road, Kidderminster	DY10 1HY	Storage and transfer	0.16	LP3199CQ 46043	5,349
WWS034	383151, 274754	Kidderminster Kerbside Recycling Bulking Facility, Kidderminster	Road No 3, Hoobrook Industrial Estate, Kidderminster	DY10 1HY	Storage and transfer	0.21	WP3999CS 46197	16,695
WWS035	383055, 274974	Davies Skip Hire, Kidderminster	Yard 10, Road 2 Arthur Drive, Hoobrook Industrial Estate	DY10 1HY	Storage and transfer	0.16	JP3692ER 101761	5,750
WWS036	383101, 274949	Jones & Sons Metals Limited, Kidderminster	Yards 1 & 2, Worcester Road, Hoobrook Industrial Estate, Kidderminster	DY10 1HY	Treatment/ Recycling	0.33	EP3099VT 101047	1,145

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS037	385802, 272439	Safeline Environmental, Hartlebury	Units 231-232 Ikon Trading Estate, Droitwich Road, Hartlebury, Kidderminster	DY10 4EU	Storage and transfer	0.06	EB3104TH 403265	775
WWS038	385509, 271019	Hartlebury Landfill Site, Hartlebury	Whitlenge Lane, Hartlebury	DY10 4HB	Disposal (including incineration without energy recovery)	9.98	ZP3232SF	72,207
WWS039	385989, 270205	Waresley Landfill Site, Hartlebury	Hartlebury Trading Estate, Hartlebury, Kidderminster	DY10 4JA	Disposal (including incineration without energy recovery)	26.57	LP3032UR	This site has an environmental permit but has not been reported in the WDI in the last 5 years
WWS040	385836, 269549	Chloros Environmental, Hartlebury	Unit 145, Hartlebury Trading Estate, Hartlebury	DY10 4JB	Storage and transfer	1.07	AP3031JR 405818	15,721
WWS041	385962, 269840	EnviRecover, Hartlebury	Plot H600, Oak Drive, Hartlebury Trading Estate, Hartlebury	DY10 4JD	Recovery	3.55	XP3935TX XP3935TX	219,406
WWS042	382787, 276579	Stephen Betts & Sons Ltd, Kidderminster	3 Park Street Works, Kidderminster	DY11 6TN	Storage and transfer	0.19	NP3699CF 46159	906

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS043	382150, 273625	Power Generation Midland Ltd, Kidderminster	Land to the rear (south and east) of Liberty Aluminium Foundry, Stourport Road, Kidderminster	DY11 7QE	Disposal (including incineration without energy recovery)	2.52	N/A	This is a newly permitted site which does not exist in the latest WDI dataset
WWS044	384670, 271587	Stanford Depot, Hartlebury	Worcester Road, Hartlebury	DY11 7XA	Storage and transfer	2.04	HP3331JK 404720	36,344
WWS045	384423, 270049	The Metal Man, Hartlebury	Unit 5 Moorlands Farm, Manor Lane, Hartlebury, Kidderminster	DY11 7XN	Storage and transfer	0.17	N/A	This site has not been reported in the WDI in the last 5 years
WWS046	381636, 272824	Bonemill Household Waste Site, Stourport	Minster Road, Stourport-on-Severn	DY13 8AS	Storage and transfer	0.5	LP3299CB 46041	14,279
WWS047	381666, 271411	Grants Metals Ltd, Stourport	Riverside Business Centre, Worcester Road, Stourport	DY13 9BZ	Storage and transfer	0.04	N/A	This site has not been reported in the WDI in the last 5 years

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS048A	382926, 273029	Summerway Landfill, Stourport	Hillary Road, Wilden, Stourport-on-Severn	DY13 9JP	Disposal (including incineration without energy recovery)	1.12	N/A	This site has not been reported in the WDI in the last 5 years (planning permission end date: 2029)
WWS048B	382905, 273050	Summerway Landfill, Stourport	Hillary Road, Wilden, Stourport-on-Severn	DY13 9JP	Treatment/ Recycling	4.51	DB3230DN 210002	120,014
WWS049	382136, 270127	Wyre Forest Recycling Services Limited, Stourport	Sandy Lane Industrial Estate, Stourport-on-Severn	DY13 9QB	Storage and transfer	0.42	PP3099CB 46001	4,490
WWS050	382015, 269898	Stourport Oil Treatment Plant, Stourport	Industrial Estate, Barracks Road, Sandy Lane, Stourport	DY13 9QB	Storage and transfer	0.61	GP3030EA 46031	48,209
WWS051	396325, 277854	Bromsgrove Household Recycling Centre, Romsley	Quantry Lane, off Money Lane, Romsley, Bromsgrove	DY9 9UU	Storage and transfer	0.45	BP3599CY 46017	7,394
WWS052	395548, 277059	Westside Forestry Ltd, Belbroughton	Chadwich Lane, Belbroughton	DY9 9XB	Treatment/ Recycling	0.54	N/A	-23,205

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS053	378866, 232190	Pendock Environmental Composting Facility, Eldersfield	Pendock Environmental, Eldersfield	GL19 4PR	Treatment/ Recycling	0.85	GP3291LZ 101480	6,066
WWS054	393641, 249713	Stone Arrow Farm, Peopleton	Off A44, Peopleton, Worcestershire	WR10 2DZ	Storage and transfer	0.27	N/A	This site has not been reported in the WDI in the last 5 years
WWS055	396848, 249484	Skippy Skip Hire and Recycling, Throckmorton	Long Lane, Throckmorton, Pershore	WR10 2JH	Storage and transfer	0.25	AB3007KB 400332	2,799
WWS056	396970, 250368	Rotherdale Farm, Throckmorton	Long Lane, Throckmorton, Pershore	WR10 2JH	Treatment/ Recycling	8.19	EPR/KP3205PD	This site has an environmental permit but has not been reported in the WDI in the last 5 years
WWS057	398928, 247400	Wrubble Limited, Throckmorton	The Yard, Long Lane, Throckmorton, Pershore	WR10 2JH	Treatment/ Recycling	2.52	FB3108XQ 404040	64,012
WWS058C	396644, 248655	Hill and Moor Landfill site, Wyre Piddle	Piddle Brook Lane, Wyre Piddle, Pershore	WR10 2LW	Treatment/ Recycling	1.55	EPR/AP3437QJ	8,986

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS058B	397055, 248496	Hill and Moor Landfill site, Wyre Piddle	Piddle Brook Lane, Wyre Piddle, Pershore	WR10 2LW	Treatment/ Recycling	5.66	EPR/ZP3933LD	64,012
WWS058D	397388, 248530	Hill and Moor Landfill site, Wyre Piddle	Piddle Brook Lane, Wyre Piddle, Pershore	WR10 2LW	Disposal (including incineration without energy recovery)	132.24	ZP3933LD	8,986
WWS058A	396987, 248277	Hill and Moor Landfill site, Wyre Piddle	Piddle Brook Lane, Wyre Piddle, Pershore	WR10 2LW	Storage and transfer	8.89	SP3598CC 48174	64,012
WWS059	398957, 247063	Springhill Farm, Fladbury	Slaters Lane, Lower Moor, Fladbury	WR10 2PE	Treatment/ Recycling	1.52	N/A	This site has not been reported in the WDI in the last 5 years
WWS060	404364, 244348	Robert Gibbs Contracting Company, Evesham	Common Rd, Evesham	WR11 4PU	Treatment/ Recycling	0.23	N/A	This site has not been reported in the WDI in the last 5 years
WWS061A	411717, 241981	R & C Metals, Honeybourne	Unit 50 Two Shires Business Park, Weston Road, Honeybourne, Evesham	WR11 7QF	Treatment/ Recycling	0.72	BB3306SN 103221	4,752

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS061B	411717, 241981	R & C Metals, Honeybourne	Unit 50 Two Shires Business Park, Weston Road, Honeybourne, Evesham	WR11 7QF	Treatment/ Recycling	0.72	TP3698CE 48268	2,933
WWS062	407106, 244910	Evesham Auto Spares, Blackminster	Unit 3 Old Station Yard, Blackminster, Evesham	WR11 7TD	Treatment/ Recycling	0.45	UP3898CD 48211	308
WWS063	407507, 246973	Pete Bott Skips Ltd, Middle Littleton	Lydstep, Cleeve Road, Middle Littleton, Evesham	WR11 8JT	Storage and transfer	0.42	DP3696EY 48204	11,503
WWS064	378621, 251599	Go Greener Ltd, Leigh Sinton	Guinness Park, Leigh Sinton, Malvern	WR13 5EQ	Storage and transfer	3.89	EB3301SG 46154	48,954
WWS065	380459, 235146	Hill Farm, Berrow	The Hill Farm, Berrow, Malvern	WR13 6JR	Recovery	1.03	WE1200AB 120414	54,589
WWS066	379612, 242198	Equilibrium Chemical Services Ltd, Welland	Unit 5 Merebrook Industrial Estate, Hanley Road, Welland, Malvern	WR13 6NP	Storage and transfer	0.16	BB3900GS 401643	1,742
WWS067	379124, 247412	Court Reclamation and Salvage, Malvern	Unit 5 The Park, Spring Lane South, Malvern	WR14 1AT	Treatment/ Recycling	0.42	FP3095SQ 101249	9,023

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS068	379255, 248441	Malvern Household Recycling Centre, Malvern	Newlands Depot, Worcester Road, Malvern	WR14 1BE	Storage and transfer	0.5	MP3298CP 48203	12,148
WWS069	379245, 247533	Environmental Services Operations Depot, Malvern	Pendragon Close, Malvern	WR14 1GR	Storage and transfer	0.37	KP3298CJ 48255	10,141
WWS070	378761, 249092	J Prosser and Son Ltd, Malvern	The Holder Station, Lower Howsell Road, Malvern	WR14 1UX	Treatment/ Recycling	1.51	DB3103XF 402530	16,780
WWS071	360051, 267183	Tenbury Household Recycling Centre, Tenbury	Tenbury Business Park, Bromyard Road, Tenbury Wells	WR15 8FA	Storage and transfer	0.52	CB3700XV 402237	2,508
WWS072	384438, 253406	Worcester Sewage Treatment Works, Worcester	Bromwich Road, Worcester	WR2 4ZP	Treatment/ Recycling	18.73	ZP3498ER 100424	57,809
WWS073	383635, 256578	Hallow Road (Worcester West) Household Recycling Centre, Worcester	Hallow Road, off Horsford Road, Worcester	WR2 6BZ	Storage and transfer	0.23	BP3199CZ 46022	3,754

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS074	385524, 257026	Bilford Road (Worcester East) Household Recycling Centre, Worcester	Bilford Rd, Worcester	WR3 8PU	Storage and transfer	1.52	NP3799CZ 46163	13,184
WWS075	386486, 257847	Blackpole Metals Ltd, Worcester	Unit 61, Blackpole Trading Estate West, Worcester	WR3 8TJ	Treatment/ Recycling	0.18	AB3201XX 400440	2,252
WWS076	386552, 258116	Blackpole Recycling Ltd, Worcester	Unit 100, Blackpole Trading Estate West, Worcester	WR3 8TJ	Storage and transfer	0.51	NP3199CB 46161	91,553
WWS077	385934, 254950	RKR Used Car Spares, Worcester	Unit 16/17 Sherriff Street, Worcester	WR4 9AB	Treatment/ Recycling	0.37	N/A	This site has not been reported in the WDI in the last 5 years
WWS078A	387980, 257317	Cleansing Service Group Ltd, Worcester	Unit 62A, Stanier Road, Worcester	WR4 9FE	Storage and transfer	0.32	FP3532NV 46024	37,655

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS078B	387980, 257317	Cleansing Service Group Ltd, Worcester	Unit 62A, Stanier Road, Worcester	WR4 9FE	Storage and transfer	0.32	EPR/FP3532NV	This site has an environmental permit but has not been reported in the WDI in the last 5 years
WWS079	389106, 251123	EnviroSort, Norton	Woodbury Lane, Norton, Worcester	WR5 2PU	Treatment/ Recycling	2.39	DP3696SF 100768	84,958
WWS080	391097, 235413	C W Hygiene Services Limited, Bredons Hardwicke	Unit 1, Croft Farm, Bredons Hardwicke, Tewkesbury	GL20 7EE	Storage and transfer	0.01	N/A	This site has not been reported in the WDI in the last 5 years
WWS081	400239, 255282	The Nathan Transfer Station (Martin H Fernihough), Inkberrow	Evesham Road, Radford, Inkberrow	WR7 4LN	Storage and transfer	0.3	BP3998CL 48162	2,161
WWS082	400276, 255434	The Nathan (northern site), Inkberrow	Evesham Road, Radford, Inkberrow	WR7 4LN	Storage and transfer	1.44	N/A	This site has not been reported in the WDI in the last 5 years

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS083	382398, 244182	Haylers End Healthcare Waste Incinerator, Hanley Castle	Hangmans Lane, Hanley Castle	WR8 0AJ	Disposal (including incineration without energy recovery)	0.87	SP3507PN	395
WWS084	384978, 240696	Upton-upon-Severn Household Waste Site, Upton-upon-Severn	Hanley Road Car Park, Hanley Castle Road, Upton-upon-Severn	WR8 0HU	Storage and transfer	0.23	PP3598CT 48152	2,194
WWS085	386795, 241088	Digaway and Clearaway Ltd, Upton-upon-Severn	Grove House Yard, Tewkesbury Road, Upton-upon-Severn	WR8 0PW	Treatment/ Recycling	0.76	KB3239RU 104594	34,922
WWS086	389549, 244591	Croome Composting, Severn Stoke	Croome Farm, Croome D'Abitot, Severn Stoke, Worcester	WR8 9DW	Treatment/ Recycling	1.96	UP3530NL	17,223
WWS087	387698, 270011	WH Bowker Ltd, Cutnall Green	Site 7, Midland Distribution Centre, Kidderminster Road, Cutnall Green, Droitwich	WR9 0NS	Treatment/ Recycling	0.17	QP3934YS 102561	10,747

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS088	392490, 263026	Droitwich Household Waste Site, Droitwich	Hanbury Wharf, Hanbury Road, Droitwich	WR9 7DX	Storage and transfer	0.46	NP3999CW 46152	8,530
WWS089	392747, 262948	Green Waste Recycling Services Ltd, Hanbury	Station House, Saltway, Hanbury	WR9 7DX	Storage and transfer	0.22	KB3101TH 407484	This site has an environmental permit but has not been reported in the WDI in the last 5 years
WWS090	389463, 264626	DTS Trading Limited, Droitwich	Unit 20, The Furlong, Berry Hill Industrial Estate, Droitwich	WR9 9AH	Treatment/ Recycling	0.88	HB3600HL 406350	24,866
WWS091	401639, 273203	Land Opposite Grosvenor House Nursing Home, Alvechurch	Aqueduct Lane, Alvechurch	B48 7BS	Treatment/ Recycling	0.3	N/A	This site has not been reported in the WDI in the last 5 years
WWS092	383709, 266725	Individual Pet & Equine Cremation, Stourport-on-Severn	Owl Hill Lane, Dunhampton, Stourport-on-Severn	DY13 9SS	Disposal (including incineration without energy recovery)	0.02	N/A	This site has not been reported in the WDI in the last 5 years

Site ID	Easting / Northing	Site Name	Site Address	Postcode	Site Type	Site Size (ha)	Permit number	Calculated annual capacity (t)
WWS093	404947, 275790	Big Forhill Farm, Hopwood	Lea End Lane, Hopwood	B38 9EB	Treatment/ Recycling	0.73	N/A	This site has not been reported in the WDI in the last 5 years
WWS094	382441, 274071	Kidderminster Sewage Treatment Works, Kidderminster	Stourport Road, Oldington, Kidderminster, Worcestershire	DY11 7QL	Treatment/ Recycling	26.39	EPR/AP3437QJ	This site has an environmental permit but has not been reported in the WDI in the last 5 years
WWS095	385736, 255261	Jansen Metco, Worcester	Unit 6, Shrub Hill Industrial Estate, Worcester	WR4 9EL	Treatment/ Recycling	0.05	N/A	This site has not been reported in the WDI in the last 5 years
WWS096	382401, 274976	Kidderminster Metals, Kidderminster	2, Lisle Avenue, Kidderminster	DY11 7D	Treatment/ Recycling	0.13	N/A	This site has not been reported in the WDI in the last 5 years
WWS097	388986, 251006	Arrow Gypsum Recycling Ltd/Crucible Gypsum Recycling, Norton	Unit 1 & 2 Crucible Business Park, Woodbury Lane, Norton, Worcester	WR5 2BA	Treatment/Recycling	0.35	101734	16,530t

Appendix 7: Sites not included in the list of waste sites

Site name	Address	Postcode	Use permanently lost		Ancillary	Former landfill site where infilling has been completed	No planning permission or known/ assumed lawful use identified
			Former waste PP or LDC or established use rights, since lost to non-waste permission	Formerly operated under B2/B8 permission. Operation closed.			
Adam Hewitt Ltd	Harvington Manor, Worcester Road, Harvington, Kidderminster	DY10 4LX					✓
Brood Ltd	Lower Berrow Farm, Trickses Lane, Ham Green, Worcestershire	B97 5TT			✓		✓
Industrial Contractors Ltd	Unit 4 Wilden Industrial Estate Stourport-on-Severn Worcestershire	DY13 9JY	✓				
Unit H Sherriff Street Trading Estate	Sherriff Street Trading Estate, Worcester	WR4 9AB	✓				
Former Marlbrook Quarry	Alvechurch Highway, Lydiate Ash, Bromsgrove	B60 1PA				✓	
Sandy Lane Landfill Site	Sandy Lane, Wildmoor, Bromsgrove	B61 0QT				✓	
Pinches 3 Landfill	Wildmoor Lane, Wildmoor, Bromsgrove	B61 0RF				✓	
Waste Incinerator	9B Oxleasow Road, East Moons Moat, Redditch	B98 0RE			✓		

Tirec Ltd	Unit 15, Broadground Road, Lakeside, Redditch	B98 8YP		✓			
T M Agri-Services Ltd (Beoley Kennels)	Icknield Street, Beoley, Redditch	B98 9AL					✓
S Walker Transport Ltd (Crowhurst Haulage Ltd since 2020)	Bransons Cross, Beoley, Redditch	B98 9DP					✓
Burlish Park Golf Club	Zortech Avenue, Kidderminster	DY11 7EX				✓	
Severntech	Former Collins Aikman Site, Steatite Way, Stourport on Severn	DY13 8QT	✓				
Blackstone Quarry	Bewdley Road North, Stourport	DY13 8RN				✓	
Pelican Food Services	Unit 6A, Barracks Road, Stourport on Severn	DY13 9QB	✓				
I & R Plastic Recycling	Sandy Lane Industrial Estate, Stourport-on-Severn	DY13 9QA		✓			
Witley Jones Furniture	Beech House, Barracks Road, Stourport	DY13 9QA			✓		
Chadwich Lane Quarry	Chadwich Lane, Bromsgrove					✓	

Plot 12, St Richards Road	St Richards Road, Four Pools Industrial Estate, Evesham	WR11 1XJ		✓			
Tenbury Wells H W R C (old site on Palmers Meadow)	Palmer's Meadow, Tenbury Wells	WR15 8SF	✓				
Ball Mill Quarry	Church Farm, Ball Mill, Grimley, Worcester	WR2 6LU				✓	
Vision Recycling UK Ltd	Unit 67c Blackpole Trading Estate West, Worcester	WR3 8TJ	✓				
National Grid Electricity Distribution (West Midlands) PLC	Blackpole Road, Blackpole Road, Worcester	WR4 9TB			✓		
Abbots Wood	Abbots Wood Farm, Abbots Wood, Kempsey, Worcester	WR5 3QJ				✓	
Cob Fisheries (Digaway & Clearaway Contractors Limited)	Worcester Road, Wichenford, Worcester	WR6 6YE				✓	
Strensham Court Lake	Strensham	WR8 9LD				✓	

Warmech Ltd	Oak Park Industrial Estate, Ryeland Lane, Elmley Lovett	WR9 0QZ					✓
Wood and green waste recycling facility at rear of Rushton Fencing Ltd	Howard Road, Redditch	B98 7SE	✓				
Kidderminster Car Dismantlers	Lisle Avenue, Kidderminster	DY11 7DL		✓			
Adj to HMP Hewell, Redditch	Hewell Grange, Redditch	B97 6QE	✓				
Complex Metal Services, Droitwich	Unit 8, The Furlong, Berry Hill Industrial Estate, Droitwich	WR9 9AH					✓
AG Recycling, Kidderminster	Unit B5, Ratio Park, Finepoint Way, Kidderminster	DY11 7FF					✓
Worcester Metals, Worcester	Unit 60B Blackpole Trading Estate West, Worcester	WR3 8TJ					✓

Appendix 8: List of Waste Planning Authorities in each region

The following list is taken from the 2024 edition of the Environment Agency's Waste Data Interrogator which assigns each Waste Planning Authority to a region. These aligns with the former planning regions which were in place until 2011 and the informal regional working groups for waste planning that retain these regions groupings.

East Midlands

- City of Derby
- Derbyshire
- Leicester City
- Leicestershire
- Lincolnshire
- Northamptonshire
- Nottingham City
- Nottinghamshire
- Rutland

East of England

- Bedford
- Cambridgeshire
- Central Bedfordshire
- Essex
- Hertfordshire
- Luton
- Norfolk
- Peterborough
- Southend-on-Sea
- Suffolk
- Thurrock

London

- Barking and Dagenham
- Barnet
- Bexley
- Brent
- Bromley
- Croydon
- Ealing
- Enfield

- Greenwich
- Hammersmith and Fulham
- Haringey
- Havering
- Hillingdon
- Hounslow
- Kingston Upon Thames
- Lewisham
- Merton
- Newham
- Redbridge
- Richmond Upon Thames
- Sutton
- Tower Hamlets
- Waltham Forest
- Wandsworth
- Westminster City

North East

- County Durham
- Darlington
- Gateshead
- Hartlepool
- Middlesbrough
- Newcastle Upon Tyne
- North Tyneside
- Northumberland
- Redcar and Cleveland
- South Tyneside
- Stockton-on-Tees
- Sunderland

North West

- Blackburn with Darwen
- Blackpool
- Bolton
- Bury
- Cheshire East
- Cheshire West and Chester
- Cumbria
- Halton
- Knowsley
- Lancashire
- Liverpool
- Manchester
- Oldham
- Rochdale
- Salford
- Sefton

- St Helens
- Stockport
- Tameside
- Trafford
- Warrington
- Wigan
- Wirral

South East

- Bracknell Forest
- Buckinghamshire
- East Sussex
- Hampshire
- Isle of Wight
- Kent
- Medway
- Milton Keynes
- Oxfordshire
- Portsmouth
- Reading
- Slough
- Southampton City
- Surrey
- West Berkshire
- West Sussex
- Windsor and Maidenhead
- Wokingham

South West

- Bath and North East Somerset
- Bournemouth, Christchurch and Poole
- Bristol City
- Cornwall
- Devon
- Dorset
- Gloucestershire
- Isles of Scilly
- North Somerset
- Plymouth
- Somerset
- South Gloucestershire
- Swindon
- Torbay
- Wiltshire

West Midlands

- Birmingham City
- Coventry
- Dudley

- Herefordshire
- Sandwell
- Shropshire
- Solihull
- Staffordshire
- Stoke-on-Trent City
- Telford and Wrekin
- Walsall
- Warwickshire
- Wolverhampton
- Worcestershire

Yorkshire and the Humber

- Barnsley
- Bradford City
- Calderdale
- Doncaster
- East Riding of Yorkshire
- Kingston Upon Hull City
- Kirklees
- Leeds
- North East Lincolnshire
- North Lincolnshire
- North Yorkshire
- Rotherham
- Sheffield
- Wakefield
- York, City of

Appendix 9: Hazardous waste movements of over 500 tonnes per annum to individual sites

Note: This data uses the 'basic waste type' categories available in the WDI and is therefore not directly comparable to other data in this section.

Appendix 8 Table 1. Non-hazardous waste received at sites in Worcestershire (movements exceeding 500 tonnes per annum)

Worcestershire site	Originating WPA	2020	2021	2022	2023	2024
Redditch Clinical Waste Treatment Facility, Redditch (WWS020)	**Bedford**	Data not in WDI	Data not in WDI	Data not in WDI	Data not in WDI	**508**
Redditch Clinical Waste Treatment Facility, Redditch (WWS020)	**Luton**	Data not in WDI	Data not in WDI	Data not in WDI	Data not in WDI	**535**
IMCR (International Metals and Cable Recycling), Long Marston (WWS028)	**Birmingham City**	Below threshold	Below threshold	Below threshold	Below threshold	**1,506**
IMCR (International Metals and Cable Recycling), Long Marston (WWS028)	**Barking and Dagenham**	Below threshold	Below threshold	Below threshold	Below threshold	**569**
IMCR (International Metals and Cable Recycling), Long Marston (WWS028)	**Lancashire**	Below threshold	Below threshold	Below threshold	**659**	**1,607**

IMCR (International Metals and Cable Recycling), Long Marston (WWS028)	**Warwickshire**	Below threshold	Below threshold	Below threshold	Below threshold	**933**
IMCR (International Metals and Cable Recycling), Long Marston (WWS028)	**Wolverhampton**	Below threshold	Below threshold	Below threshold	Below threshold	**869**
Unimetals, Long Marston (WWS029)	**Sandwell**	Below threshold	**2,114**	**780**	**8,503**	**8,221**
Unimetals, Long Marston (WWS029)	**Bristol City**	Below threshold	Below threshold	Below threshold	**10,688**	**23,218**
Unimetals, Long Marston (WWS029)	**Barnsley**	Below threshold	**2,104**	Below threshold	**509**	Below threshold
Unimetals, Long Marston (WWS029)	**Kingston Upon Hull City**	Below threshold	Below threshold	Below threshold	**1,495**	**2,510**
Unimetals, Long Marston (WWS029)	**Nottingham City**	**12,864**	**24,955**	**25,639**	**48,167**	**13,526**
Unimetals, Long Marston (WWS029)	**Lincolnshire**	Below threshold	Below threshold	**537**	**1,015**	Below threshold
Unimetals, Long Marston (WWS029)	**Norfolk**	Below threshold	Below threshold	Below threshold	Below threshold	**845**
Hartlebury Landfill Site, Hartlebury (WWS038)	**Shropshire**	**1,357**	**844**	**564**	**863**	**637**
Hartlebury Landfill Site, Hartlebury (WWS038)	**Gloucestershire**	**1,230**	**1,360**	**2,384**	**4,912**	**1,853**
Hartlebury Landfill Site, Hartlebury (WWS038)	**Derbyshire**	Below threshold	Below threshold	Below threshold	Below threshold	**661**
Chloros Environmental, Hartlebury (WWS040)	**Shropshire**	Below threshold	Below threshold	**616**	**570**	Below threshold
Chloros Environmental, Hartlebury (WWS040)	**Devon**	Below threshold	Below threshold	**718**	**550**	**542**

Chloros Environmental, Hartlebury (WWS040)	**Gloucestershire**	Below threshold	Below threshold	Below threshold	**533**	**584**
Chloros Environmental, Hartlebury (WWS040)	**Hampshire**	Below threshold	Below threshold	Below threshold	**601**	**1,759**
Chloros Environmental, Hartlebury (WWS040)	**Cheshire West and Chester**	**546**	Below threshold	Below threshold	Below threshold	Below threshold
Chloros Environmental, Hartlebury (WWS040)	**Derbyshire**	Below threshold	Below threshold	Below threshold	Below threshold	**707**
Chloros Environmental, Hartlebury (WWS040)	**Northamptonshire**	Below threshold	Below threshold	**737**	**584**	**808**
Stourport Oil Treatment Plant, Stourport (WWS050)	**Birmingham City**	Below threshold	Below threshold	Below threshold	**798**	**878**
Stourport Oil Treatment Plant, Stourport (WWS050)	**Sandwell**	Below threshold	**615**	Below threshold	Below threshold	Below threshold
Stourport Oil Treatment Plant, Stourport (WWS050)	**Devon**	**2,594**	**1,632**	**854**	Below threshold	**839**
Stourport Oil Treatment Plant, Stourport (WWS050)	**Medway**	**4,341**	Below threshold	Below threshold	Below threshold	Below threshold
Stourport Oil Treatment Plant, Stourport (WWS050)	**Wiltshire**	**1,691**	Below threshold	Below threshold	Below threshold	Below threshold
Stourport Oil Treatment Plant, Stourport (WWS050)	**Trafford**	**3,630**	**2,579**	**1,011**	**511**	Below threshold
Stourport Oil Treatment Plant, Stourport (WWS050)	**Oxfordshire**	Below threshold	**786**	**704**	**1,041**	**773**
Stourport Oil Treatment Plant, Stourport (WWS050)	**Plymouth**	Below threshold	**602**	**552**	Below threshold	Below threshold
Stourport Oil Treatment Plant, Stourport (WWS050)	**Suffolk**	**541**	Below threshold	Below threshold	Below threshold	Below threshold

Stourport Oil Treatment Plant, Stourport (WWS050)	**Walsall**	Below threshold	Below threshold	Below threshold	**552**	**540**
R & C Metals, Honeybourne (WWS061)	**Gloucestershire**	Below threshold	**606**	Below threshold	Below threshold	Below threshold
Equilibrium Chemical Services Ltd, Welland (WWS066)	**Manchester**	Below threshold	**508**	Below threshold	Below threshold	Below threshold
Equilibrium Chemical Services Ltd, Welland (WWS066)	**Stockport**	**742**	Below threshold	Below threshold	Below threshold	Below threshold
Cleansing Service Group Ltd, Worcester (WWS078)	**Bristol City**	Below threshold	Below threshold	**691**	Below threshold	Below threshold
Cleansing Service Group Ltd, Worcester (WWS078	**Gloucestershire**	**1,109**	**1,225**	**1,986**	**1,720**	**841**
Cleansing Service Group Ltd, Worcester (WWS078	**Herefordshire**	**613**	Below threshold	**739**	**694**	Below threshold
Cleansing Service Group Ltd, Worcester (WWS078)	**Warwickshire**	Below threshold	Below threshold	**512**	Below threshold	Below threshold
Vision Recycling UK Ltd (120204)	**Dudley**	Below threshold	**1,708**	**1,933**	**1,757**	Site closed

Appendix 8 Table 2. Hazardous waste originating in Worcestershire received at facilities in a WPA other than Worcestershire, where annual movements exceeded 500 tonnes in at least 1 of the last 5 years

Receiving WPA	Receiving site (as referred to in WDI)	2020	2021	2022	2023	2024
Bristol City	**Wessex Water, Bristol Treatment Centre** EPR/SP3131QJ	1,152	Below threshold	Below threshold	Below threshold	Below threshold
Bristol City	**Augean Waste Treatment Plant** EPR/RP3735XP/V002	Below threshold	503	525	Below threshold	Below threshold
Bristol City	**Avonmouth Recycling Centre**	Below threshold	Below threshold	Below threshold	2,190	Below threshold

	EPR/FB3901FG/V003					
Cheshire East	**Brooks Lane Organics** EPR/RP3531LP	Below threshold	Below threshold	Below threshold	Below threshold	548
Cheshire West and Chester	**Ellesmere Port Incinerator** EPR/SP3409LC	Below threshold	Below threshold	823	Below threshold	1,065
Derbyshire	**Ilkeston Waste Treatment and Transfer Facility** EPR/AP3337SJ	629	967	747	779	740
Gloucestershire	**Wingmoor Farm** EPR/BU3671IY	Below threshold	954	639	734	Below threshold
Gloucestershire	**Abbey Recycling** 100026	Below threshold	Below threshold	Below threshold	802	Below threshold
Hampshire	**Fawley high temperature incinerator** FP3935KL	Below threshold	Below threshold	Below threshold	Below threshold	780
Hampshire	**BKP Hazardous Waste Transfer and Treatment Station** EPR/FP3599LH DP3630WY	Below threshold	Below threshold	Below threshold	Below threshold	618
Herefordshire	**P & T Moore Vehicle Dismantlers** 30272	Below threshold	Below threshold	Below threshold	Below threshold	507
Kent	Sweeep Kuusakoski Ltd - EPR/GP3498H QP3835CM	Below threshold	1,324	1,693	1,810	1,983
Kingston Upon Hull City	**Air Street Site** EPR/HP3398EQ GP3935TZ	Below threshold	871	791	567	576
Kingston Upon Hull City	**Ann Watson Street Site** EPR/FP3630MZ	838	Below threshold	Below threshold	Below threshold	741
Lancashire	**Recycling Lives Recycling Park** EPR/EP3595SK VP3231VK	Below threshold	544	Below threshold	Below threshold	Below threshold
Lancashire	**Tradebe Heysham Limited** BP3744QP	Below threshold	Below threshold	Below threshold	Below threshold	2,070
Liverpool	**Greenway Envirnmental Ltd** EPR/GP3935KM	Below threshold	713	Below threshold	Below threshold	Below threshold
Liverpool	**Lower Bank View Waste Management**	Below threshold	Below threshold	513	Below threshold	Below threshold

	Facility EPR/KP3734DR					
Northamptonshire	**East Northants RM Facility** EPR/YP3138XB	Below threshold	Below threshold	515	Below threshold	Below threshold
Nottingham City	**Harrimans Lane** EPR/ZP3532WY	2,942	Below threshold	Below threshold	Below threshold	Below threshold
Salford	**CSG Lanstar (Cadishead)** EPR/BS1538IQ	773	712	1,171	944	1,083
Sandwell	**Bullock Street** EPR/ZP3537SL	780	977	940	849	1,055
Sandwell	**Wednesbury WM Resource Centre** EPR/XP3631SE	544	564	Below threshold	Below threshold	614
Sandwell	**Edwin Richards Quarry – Soil Treatment Centre** EPR/HP3632RP/V003	Below threshold	1,321	504	1,446	1,942
Sandwell	**Rabone Lane** EPR/ZP3032WF	787	Below threshold	Below threshold	Below threshold	Below threshold
Sandwell	**MTB (MIdlands) - Cradley Heath** EPR/EP3136MN	Below threshold	Below threshold	Below threshold	1,330	1,329
Sandwell	**Mighty Trading Ltd** 404984	Below threshold	Below threshold	Below threshold	Below threshold	3,390
South Gloucestershire	**Avonmouth Aggregate Production Facility**EPR/HP3638WW	6,234	4,439	4,886	6,235	Below threshold
Staffordshire	**Stoke Waste Treatment & Transfer Facility** EPR/LP3337ML	735	1,069	1,001	564	610
Staffordshire	**Meece 1 Landfill** EPR/BV4967IW	838	1,240	Below threshold	Below threshold	Below threshold
Staffordshire	**Cauldon Cement Plant** EPR/TP3334AW	Below threshold	Below threshold	Below threshold	1,330	1,347
Stockton-on-Tees	**Port Clarence Landfill Site** EPR/YP3234XR	Below threshold	Below threshold	Below threshold	Below threshold	5,784
Suffolk	**Hollywell Waste Oil Treatment Facility** EPR/CB3906FN DP3438AF	10,601	16,831	15,292	15,518	15,670
Suffolk	**Brandon Aggregate Manufacturing**	Below threshold	642	Below threshold	Below threshold	Below threshold

	Facility EPR/JP3332FK					
Walsall	**Walsall Oil Treatment Plant** EPR/QP3137MM	3,694	4,294	4,032	4,749	4,797
Walsall	**Empire Treatment Works** EPR/XP3037SE	710	Below threshold	Below threshold	Below threshold	Below threshold
Warwickshire	**CSG Coventry Treatment Plant** EPR/HP3331SW	Below threshold	698	Below threshold	Below threshold	Below threshold