

# Appendix B

## Waste Data Sources

**Table B.1 Current Waste Arisings**

| Waste source                        | Source(s)  | Description / Limitations  | Confidence |
|-------------------------------------|--|--|------------|
| LACW                                | WasteDataFlow (WDF), 2018/19<br>WasteDataFlow (WDF), 2019/20<br>WasteDataFlow (WDF), 2020/21<br>WasteDataFlow (WDF), 2021/22   | 2018/19 data set used.<br>2019/20 data set used.<br>2020/21 data set used.<br>2021/22 data set used.   | High       |
| Commercial & Industrial waste (C&I) | Waste Data Interrogator (WDI) (excluding specific EWC Chapters), Waste Received 2018<br><br>Waste Data Interrogator (WDI) (excluding specific EWC Chapters), Waste Received 2019<br><br>Waste Data Interrogator (WDI) (excluding specific EWC Chapters), Waste Received 2020<br><br>Waste Data Interrogator (WDI) (excluding specific EWC Chapters), Waste Received 2021 | C&I waste was estimated from WDI data on the origins of waste. See methodology below.<br>WDI 'waste received' data only records details of waste received at permitted sites in England. | Medium     |

### C&I methodology

C&I waste was estimated based on the waste received at permitted sites in 2018, 2019, 2020 and 2021 origin in Sandwell as well as 'West Midlands WPA Not Codeable' and 'West Midlands Estimated'. This included waste generated under the Basic Waste Categories (BWC): Household/Industrial/Commercial waste (Hhold/ Ind/ Com) and the Inert/ Construction and Demolition Waste (Inert/ C&D) BWC.

From the Hhold/ Ind/ Com BWC the following EWC codes were subtracted:

- Mine and Quarry Wastes (EWC 01)
- Agricultural Wastes (sub chapter of EWC 02)
- C&D wastes (EWC 17)
- Secondary/treatment wastes (EWC 19)
- Municipal Wastes (EWC 20)

The food processing sub-chapters of EWC 02 was included within the Hhold/ Ind/ Com waste estimate as well as including a percentage of the EWC 20 code to account for non-household C&I waste (i.e. wastes similar to household waste which have been generated by businesses); this was to better reflect these waste streams within the total estimate. Non household C&I estimate was a percentage of the respective EWC 20 code, based on reported NHH LACW figures (Sandwell 9%).

From the Inert/ C&D BWC the following EWC codes were subtracted:

- Mine and Quarry Wastes (EWC 01)

| Waste source | Source(s) | Description / Limitations | Confidence |
|--------------|-----------|---------------------------|------------|
|--------------|-----------|---------------------------|------------|

- Agricultural / Food Wastes (EWC 02)
- C&D Wastes (EWC 17)
- Secondary / Treatment Wastes (EWC 19)
- Municipal Wastes (EWC 20).

C&I Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated (535,990 tonnes) was apportioned to Sandwell based on NOMIS Business Counts Enterprises by Industry 2018: Total Enterprises in Sandwell as % of Total Enterprises in the West Midlands.

| West Midlands Not Codeable Waste - Estimated C&I Waste Arising in 2018 (tonnes) | Sandwell |
|---|----------|
| Apportionment to Sandwell %   | 4.13%    |
| Apportionment to Sandwell (tonnes)  | 22,136   |

C&I Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated (719,420 tonnes) was apportioned to Sandwell based on NOMIS Business Counts Enterprises by Industry 2019: Total Enterprises in Sandwell as % of Total Enterprises in the West Midlands.

| West Midlands Not Codeable Waste - Estimated C&I Waste Arising in 2019 (tonnes) | Sandwell |
|---|----------|
| Apportionment to Sandwell %   | 4.15%    |
| Apportionment to Sandwell (tonnes)  | 29,856   |

C&I Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated (630,637 tonnes) was apportioned to Sandwell based on NOMIS Business Counts Enterprises by Industry 2020: Total Enterprises in Sandwell as % of Total Enterprises in the West Midlands.

| West Midlands Not Codeable Waste - Estimated C&I Waste Arising in 2020 (tonnes) | Sandwell |
|---|----------|
| Apportionment to Sandwell %   | 4.10%    |
| Apportionment to Sandwell (tonnes)  | 25,856   |

C&I Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated (734,118 tonnes) was apportioned to Sandwell based on NOMIS Business Counts Enterprises by Industry 2021: Total Enterprises in Sandwell/ by WPA as % of Total Enterprises in the West Midlands.

| West Midlands Not Codeable Waste - Estimated C&I Waste Arising in 2021 (tonnes) | Sandwell |
|---|----------|
| Apportionment to Sandwell %   | 4.36%    |
| Apportionment to Sandwell (tonnes)  | 32,040   |

Due to the limitations of the data source used, the estimates can only be regarded as an approximate indicator of C&I Waste arising in Sandwell. The WDI only records information on 'controlled' waste received at permitted waste sites regulated by the Environment Agency in the specified calendar year.

| Waste source                             | Source(s)                    | Description / Limitations  | Confidence |
|--|------------------------------|--|------------|
| <b>Waste disposed of at exempt sites</b> | EA Waste Exemptions Register | All exemptions excluding ones used in CD&EW and agricultural waste estimate. There is limited data available on the waste exemptions register to estimate site capacity. Arisings are estimated as a function of waste amounts permitted under exemption using a number of untested assumptions therefore the level of confidence associated with this estimate is "very low". | Very low   |

### Exemptions methodology

For all exemptions considered, the limit specified in the exemption description, where available, was used as a guideline to calculate likely waste arisings. It was assumed that waste arisings would be 10% of the maximum capacity allowed under the exemption. This could underestimate waste generated under the exemptions category but in the absence of any other data, and given the number of exemptions in Sandwell (590), it was felt this was the most practicable way to calculate waste arisings.

|  |   |  |          |
|--|---|--|----------|
| <b>Construction, Demolition and Excavation waste (CD&amp;EW)</b> | WDI EWC Chapter 17 (Construction and Demolition Wastes)<br>Waste Received 2018<br>Waste Received 2019<br>Waste Received 2020<br>Waste Received 2021 | Waste recorded in the WDI as EWC Chapter 17 was classified as CD&EW.   | Medium   |
|  | EA Waste Exemptions Register for U1 (Use of waste in construction) and U3 (Construction of entertainment or educational installations)              | The waste deposited at exempt sites (for U1 and U3 exemptions) was estimated from the limited data available on the waste exemptions register. Arisings are estimated as a function of waste amounts permitted under exemption using a number of untested assumptions therefore the level of confidence associated with this estimate is "very low". | Very low |

### CD&EW methodology

CD&E waste was estimated based on the waste received at permitted sites in 2018, 2019, 2020 and 2021 whose origin is Sandwell as well as 'West Midlands WPA Not Codeable' and 'West Midlands Estimated'. This included waste generated under the Basic Waste Categories (BWC): Household/Industrial/Commercial waste (Hhold/ Ind/ Com) and the Inert/ Construction and Demolition Waste (Inert/ C&D) BWC. From both of these BWC the following EWC codes were included:

- Mine and Quarry Waste Only (EWC 01)
- CD&EW Only (EWC 17)

CD&EW Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated (2,130,192 tonnes) was apportioned to Sandwell based on Sandwell Enterprises/ Enterprises by WPA falling within SIC Codes 39 - 43 (Construction and Related Industries) as % of West Midlands Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries).

| CD&EW Waste Origin West Midlands WPA Not Codeable / Estimated in 2018 (tonnes) | Sandwell |
|--|----------|
|  |          |

| Waste source | Source(s) | Description / Limitations | Confidence |
|--------------|-----------|---------------------------|------------|
|--------------|-----------|---------------------------|------------|

|                                    |        |
|------------------------------------|--------|
| Apportionment to Sandwell %        | 3.88%  |
| Apportionment to Sandwell (tonnes) | 82,651 |

CD&EW Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated (1,917,236 tonnes) was apportioned to Sandwell based on Sandwell Enterprises/ Enterprises by WPA falling within SIC Codes 39 - 43 (Construction and Related Industries) as % of West Midlands Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries).

|   |                 |
|---|-----------------|
| <b>CD&amp;EW Waste Origin West Midlands WPA Not Codeable / Estimated in 2019 (tonnes)</b> | <b>Sandwell</b> |
| Apportionment to Sandwell %   | 3.88%           |
| Apportionment to Sandwell (tonnes)  | 74,389          |

CD&EW Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated (1,659,791 tonnes) was apportioned to Sandwell based on Sandwell Enterprises / Enterprises by WPA falling within SIC Codes 39 - 43 (Construction and Related Industries) as % of West Midlands Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries).

|   |                 |
|---|-----------------|
| <b>CD&amp;EW Waste Origin West Midlands WPA Not Codeable / Estimated in 2020 (tonnes)</b> | <b>Sandwell</b> |
| Apportionment to Sandwell %   | 4.02%           |
| Apportionment to Sandwell (tonnes)  | 66,724          |

CD&EW Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated (1,690,710 tonnes) was apportioned to Sandwell based on Sandwell Enterprises/ Enterprises by WPA falling within SIC Codes 39 - 43 (Construction and Related Industries) as % of West Midlands Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries).

|   |                 |
|---|-----------------|
| <b>CD&amp;EW Waste Origin West Midlands WPA Not Codeable / Estimated in 2021 (tonnes)</b> | <b>Sandwell</b> |
| Apportionment to Sandwell %   | 4.25%           |
| Apportionment to Sandwell (tonnes)  | 71,838          |

|                           |  |  |        |
|---------------------------|--|--|--------|
| <b>Agricultural waste</b> | WDI EWC Chapter 2 (Agriculture and Food Processing Wastes), Waste Received 2018<br>Waste Received 2019<br>Waste Received 2020<br>Waste Received 2021 | Waste recorded in the WDI as EWC Chapter 2 was classified as agricultural and food processing waste. | Medium |
|---------------------------|--|--|--------|

| Waste source | Source(s)  | Description / Limitations  | Confidence |
|--------------|--|--|------------|
|              | EA Waste Exemptions Register for U10 (Spreading waste to benefit agricultural land), U11 (Spreading waste to benefit non-agricultural land), T24 (Anaerobic digestion at premises used for agriculture and burning resulting biogas) and T25 (Anaerobic digestion at premises not used for agriculture and burning resulting biogas) | The waste deposited at exempt sites (for U1 and U3 exemptions) was estimated from the limited data available on the waste exemptions register. Arisings are estimated as a function of waste amounts permitted under exemption using a number of untested assumptions therefore the level of confidence associated with this estimate is "very low". | Very low   |

### Agricultural methodology

Agricultural waste was estimated based on the waste received at permitted sites in 2018, 2019, 2020 and 2021 whose origin is Sandwell as well as 'West Midlands WPA Not Codeable' and 'West Midlands Estimated'. This included waste generated under Household/Industrial/Commercial waste (Hhold/ Ind/ Com) BWC.

Agricultural waste was estimated based on the agricultural sub-category of EWC 02 (Agriculture - horticulture - aquaculture - forestry - hunting and fishing).

Agricultural Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated (31,107 tonnes) was apportioned to Sandwell based on Agricultural Waste - NOMIS Business Counts 2018 Enterprises by Industry and Employment Size Band – Enterprises falling within SIC Codes 1 – 3 (Agriculture and Related Industries) in Sandwell as % of Enterprises falling within SIC Codes 1 – 3 in the West Midlands region, as below.

| West Midlands Not Codeable Waste - Estimated C&I Waste Arising in 2018 (tonnes) | Sandwell |
|---|----------|
| Apportionment to Sandwell %   | 0.04%    |
| Apportionment to Sandwell (tonnes)  | 12       |

Agricultural Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated (926 tonnes) was apportioned to Sandwell based on Agricultural Waste - NOMIS Business Counts 2019 Enterprises by Industry and Employment Size Band – Enterprises falling within SIC Codes 1 – 3 (Agriculture and Related Industries) in Sandwell as % of Enterprises falling within SIC Codes 1 – 3 in the West Midlands region, as below.

| West Midlands Not Codeable Waste - Estimated C&I Waste Arising in 2019 (tonnes) | Sandwell |
|---|----------|
| Apportionment to Sandwell %   | 0.08%    |
| Apportionment to Sandwell (tonnes)  | 1        |

| Waste source | Source(s) | Description / Limitations | Confidence |
|--------------|-----------|---------------------------|------------|
|--------------|-----------|---------------------------|------------|

Agricultural Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated (4,292 tonnes) was apportioned to Sandwell based on Agricultural Waste - NOMIS Business Counts 2020 Enterprises by Industry and Employment Size Band – Enterprises falling within SIC Codes 1 – 3 (Agriculture and Related Industries) in Sandwell as % of Enterprises falling within SIC Codes 1 – 3 in the West Midlands region, as below.

| West Midlands Not Codeable Waste - Estimated C&I Waste Arising in 2020 (tonnes) | Sandwell |
|---|----------|
| Apportionment to Sandwell %   | 0.04%    |
| Apportionment to Sandwell (tonnes)  | 2        |

Agricultural Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated (5,012 tonnes) was apportioned to Sandwell based on Agricultural Waste - NOMIS Business Counts 2021 Enterprises by Industry and Employment Size Band – Enterprises falling within SIC Codes 1 – 3 (Agriculture and Related Industries) in Sandwell as % of Enterprises falling within SIC Codes 1 – 3 in the West Midlands region, as below.

| West Midlands Not Codeable Waste - Estimated C&I Waste Arising in 2021 (tonnes) | Sandwell |
|---|----------|
| Apportionment to Sandwell %   | 0.09%    |
| Apportionment to Sandwell (tonnes)  | 4        |

|  |  |  |        |
|--|--|--|--------|
| <b>Hazardous waste</b>   | Hazardous Waste Data Interrogator,<br>Waste Received 2018<br>Waste Received 2019<br>Waste Received 2020<br>Waste Received 2021   | Hazardous waste arisings were taken from the Hazardous Waste Data Interrogator.  | High   |
| <b>Retailer take-back and Producer Compliance Scheme collections</b> | EA National Packaging Waste Database:<br>Public Batteries Report for the 2019 Compliance Period > table 3b Waste Portable Batteries collected by each Battery Compliance Scheme in 2019<br><br>Public Batteries Report for the 2020 Compliance | Total apportioned by Sandwell percentage of population (0.51% of UK population <sup>1</sup> ).<br>For WEEE and batteries retailer take-back and PCS collections will be calculated as difference between compliance data and quantity reported for household collections (WDF apportioned for Sandwell). | Medium |

<sup>1</sup> ONS 2021 MYE Sandwell Population – 341,729/ UK population – 67,026,292= 0.51%

| Waste source                              | Source(s)  | Description / Limitations  | Confidence  |
|---|--|--|-------------|
|   | <p>Period &gt; table 3b Waste Portable Batteries collected by each Battery Compliance Scheme in 2020</p> <p>Public Batteries Report for the 2020 Compliance Period &gt; table 3b Waste Portable Batteries collected by each Battery Compliance Scheme in 2021</p> <p>EA 'WEEE collected in the UK' Summary Report<br/>2019_Quarter_1_-_4 tab<br/>2020_Quarter_1_-_4 tab<br/>2021_Quarter_1_-_4 tab</p> |  |             |
| <b>Low level radioactive waste (LLRW)</b> | EA Radioactive Substances Register, UK radioactive waste inventory   | The EA's Radioactive Substances Register provides data on producers of LLRW (see table below). | No estimate |

**Table B.2 Current Waste Management**

|                           | Source(s)  | Confidence |
|---------------------------|--|------------|
| <b>LACW</b>               | Defra Local Authority Collected Waste Statistics, 2018/19<br>Defra Local Authority Collected Waste Statistics, 2019/20<br>Defra Local Authority Collected Waste Statistics, 2020/21<br>Defra Local Authority Collected Waste Statistics, 2021/22 | High       |
| <b>C&amp;I</b>            | Waste Data Interrogator (WDI) Waste Received 2018<br>Waste Data Interrogator (WDI) Waste Received 2019<br>Waste Data Interrogator (WDI) Waste Received 2020<br>Waste Data Interrogator (WDI) Waste Received 2021                                 | Medium     |
| <b>CD&amp;EW</b>          | WDI 2018 (EWC Chapter 17), Waste Received 2018<br>WDI 2019 (EWC Chapter 17), Waste Received 2019<br>WDI 2020 (EWC Chapter 17), Waste Received 2020<br>WDI 2021 (EWC Chapter 17), Waste Received 2021   | Medium     |
| <b>Hazardous</b>          | Hazardous Waste Data Interrogator 2018<br>Hazardous Waste Data Interrogator 2019<br>Hazardous Waste Data Interrogator 2020<br>Hazardous Waste Data Interrogator 2021   | High       |
| <b>Agricultural waste</b> | WDI 2018 (EWC Chapter 2 sub-category), Waste Received 2018<br>WDI 2019 (EWC Chapter 2 sub-category), Waste Received 2019<br>WDI 2020 (EWC Chapter 2 sub-category), Waste Received 2020   | Medium     |

|                                | Source(s)  | Confidence |
|--------------------------------|--|------------|
|                                | WDI 2020 (EWC Chapter 2 sub-category), Waste Received 2021 |            |
| <b>Managed at exempt sites</b> | EA Waste Exemptions Register                               | Very low   |

The management method of current waste arisings, apart from hazardous waste, aligned to the following four categories, 'Re-use, recycling and composting', 'Recovery', 'Transfer' and 'Disposal'.

To categorise the range of facilities (permitted sites) that received waste from Sandwell in 2018, 2019, 2020 and 2021 the facilities were assigned a suitable category as shown in table B3. This approach was also used when looking at waste management of waste exported outside Sandwell.



**Table B.3 Facility Type Categorisation**

| <b>Facility Type</b>                | <b>Waste Management Category</b> |
|-------------------------------------|----------------------------------|
| Anaerobic Digestion                 | Reuse, recycling and composting  |
| Animal and Food Waste               | Reuse, recycling and composting  |
| Animal by-products incinerator      | Recovery                         |
| Biological Treatment                | Reuse, recycling and composting  |
| Biomass                             | Recovery                         |
| CA Site                             | Transfer                         |
| Car Breaker                         | Reuse, recycling and composting  |
| Chemical Treatment                  | Recovery                         |
| Clinical Waste Incinerator          | Recovery                         |
| Clinical Waste Transfer             | Transfer                         |
| Clinical Waste Transfer / Treatment | Transfer                         |
| Co-Incinerator                      | Recovery                         |
| Co-Incinerator (Haz)                | Recovery                         |
| Combustion                          | Recovery                         |
| Composting                          | Reuse, recycling and composting  |
| Construction                        | Recovery                         |
| Deposit of waste to land (recovery) | Recovery                         |
| EFW Incinerator                     | Recovery                         |
| Ferrous Metal re-processing         | Recovery                         |
| Haz Waste Transfer                  | Transfer                         |
| Haz Waste Transfer / Treatment      | Transfer                         |
| Hazardous Merchant LF               | Disposal                         |
| Hazardous Restricted LF             | Disposal                         |
| Hazardous Waste Incinerator         | Recovery                         |
| Inert LF                            | Disposal                         |

| <b>Facility Type</b>                      | <b>Waste Management Category</b> |
|---|----------------------------------|
| <b>Inert Waste Transfer</b>               | Transfer                         |
| <b>Inert Waste Transfer / Treatment</b>   | Transfer                         |
| <b>In-House storage</b>                   | Transfer                         |
| <b>Material Recycling Facility</b>        | Reuse, recycling and composting  |
| <b>Metal Recycling</b>                    | Reuse, recycling and composting  |
| <b>Municipal Waste Incinerator</b>        | Recovery                         |
| <b>Non Haz (SNRHW) LF</b>                 | Disposal                         |
| <b>Non Haz Waste Transfer / Treatment</b> | Recovery                         |
| <b>Non Hazardous LF</b>                   | Disposal                         |
| <b>Non-Ferrous Metal reprocessing</b>     | Reuse, recycling and composting  |
| <b>Non-Haz Waste Transfer</b>             | Recovery                         |
| <b>Non-Haz Waste Transfer / Treatment</b> | Recovery                         |
| <b>Organic Chemicals</b>                  | Recovery                         |
| <b>Paper and Pulp Reprocessing</b>        | Reuse, recycling and composting  |
| <b>Paper Recycling</b>                    | Reuse, recycling and composting  |
| <b>Physical Treatment</b>                 | Recovery                         |
| <b>Physical-Chemical Treatment</b>        | Recovery                         |
| <b>Recovery of Waste</b>                  | Recovery                         |
| <b>Restricted LF</b>                      | Disposal                         |
| <b>Storage - Metal Reprocessing</b>       | Transfer                         |
| <b>Temporary storage installation</b>     | Transfer                         |
| <b>Vehicle Depollution Facility</b>       | Reuse, recycling and composting  |
| <b>WEEE treatment facility</b>            | Reuse, recycling and composting  |

**Table B.4 Existing Waste Management Capacity**

| Facility type  | Source(s)   | Limitations  | Confidence |
|--|---|--|------------|
| <b>Landfill</b>  | EA data 'Remaining landfill capacity: England as at end 2021'   | Capacity data is provided in cubic metres. Conversion factors used to convert volume into weight estimates.  | Medium     |
| <b>Incineration (with and without energy recovery)</b> | EA data and internal EfW database<br>WDI 2019<br>WDI 2020<br>WDI 2021<br><br>From 2019 onwards the WDI includes incineration data and they are no longer reported separately. | EA data includes operational/under construction R1 facilities. An internal Wood database compiles information on planned and consented facilities.<br><br>Capacity estimate reported by operators are generally the deigned capacity, but we have used 2018 reported throughput, i.e. operational capacity as opposed to permitted capacity. | Medium     |
| <b>Other Site Categories: MRS, Transfer, Treatment</b> | WDI 2018<br>WDI 2019<br>WDI 2020<br>WDI 2021  | WDI inputs, i.e. operational throughput, at specified facilities within Sandwell.  | Medium     |

Notes

1. This is the underlying data used in Table 2.8 as the 'baseline' estimate of waste management capacity in Sandwell in 2021, and that 'waste received' at landfill sites and on/ in land sites has been omitted as these are temporary uses and landfill capacity is measured differently, i.e. cubic metres of void space rather than annual throughput in tonnes per annum.

**Table B.5 Specialist Waste Management Capacity**

| Facility type                             | Source(s)  | Limitations   | Confidence  |
|---|--|---|-------------|
| <b>Agricultural waste</b>                 | EA waste exemptions register, WRAP and ABDA AD databases   | Agricultural waste capacity was estimated from information on the waste exemptions register (for T24, T25, U10 and U11 exemptions). There is limited data available on the waste exemptions register to estimate site capacity. | Very low    |
| <b>Hazardous waste</b>                    | 2018 Hazardous Waste Data Interrogator<br>2019 Hazardous Waste Data Interrogator<br>2020 Hazardous Waste Data Interrogator<br>2021 Hazardous Waste Data Interrogator | Throughput capacity. The Hazardous WDI provides information on the fate of hazardous waste managed at permitted facilities in Sandwell.   | Medium      |
| <b>Low level radioactive waste (LLRW)</b> | Environment Agency   | No publicly available information on facility capacities to treat LLRW  | No estimate |

| Facility type                        | Source(s)   | Limitations  | Confidence |
|--------------------------------------|---|--|------------|
| <b>Construction waste exemptions</b> | EA waste exemptions register  | There is limited data available on the waste exemptions register to estimate site capacity.  | Very low   |
| <b>Disposal (D) exemptions</b>       | EA waste exemptions register  | There is limited data available on the waste exemptions register to estimate site capacity.  | Very low   |
| <b>Storage (S) exemptions</b>        | EA waste exemptions register  | There is limited data available on the waste exemptions register to estimate site capacity.  | Very low   |
| <b>Treatment (T) exemptions</b>      | EA waste exemptions register  | There is limited data available on the waste exemptions register to estimate site capacity.  | Very low   |
| <b>Use (U) exemptions</b>            | EA waste exemptions register  | There is limited data available on the waste exemptions register to estimate site capacity.  | Very low   |
| <b>Wastewater treatment</b>          | Environment Agency 'Consented Discharges to Controlled Waters with Conditions' database (01/04/2023) and the Black Country Water Cycle Study (May 2020), JBA Consulting | To obtain this information from the source data, it is necessary to cross-reference the DWF data in the 'Determinands' spreadsheet with the permit references in the 'Consents Active' spreadsheet | High       |
| <b>Wastewater sludge treatment</b>   | Anaerobic Digestion and Bioresources Association (ADBA) AD interactive map and database   | The ADBA AD database was used to identify facilities managing sewage sludge in Sandwell. Member login used to access capacity data.  | High       |
| <b>ELV recycling and depollution</b> | 2019 WDI<br>2020 WDI<br>2021 WDI  | WDI inputs, i.e. operational throughput, at specified facilities within Sandwell. Double counting as already accounted for within 'MRS' of existing capacity table                                 | Medium     |
| <b>WEEE treatment</b>                | 2019 WDI<br>2020 WDI<br>2021 WDI  | WDI inputs, i.e. operational throughput, at specified facilities within Sandwell. Double counting as already accounted for within 'Treatment' of existing capacity table.                          | Medium     |

**Table B.6 Waste Infrastructure Projects relevant to the study area by Authority and by Type**

| <b>Authority</b>      | <b>Source(s)</b>   |
|-----------------------|--|
| <b>Dudley</b>         | Dudley Council   |
| <b>Walsall</b>        | Walsall Council  |
| <b>Sandwell</b>       | Sandwell Council   |
| <b>Wolverhampton</b>  | Wolverhampton Council  |
| <b>Birmingham</b>     | Birmingham City Council planning application search (March 2023)   |
| <b>Lincolnshire</b>   | BAEF: Royal Haskoning DHV, 2018, Boston Alternative Energy Facility BAEF – EIA Scoping Report<br>Waste to jet fuel: North East Lincolnshire Council, 2018, Immingham site targeted for the UK’s first commercial scale waste-to-jet-fuel plant |
| <b>Shropshire</b>     | Shropshire Council, Authority’s Monitoring Report 2019/20  |
| <b>Solihull</b>       | Solihull Council planning application search<br>Naisbitt Resource Management, 2018, Solihull Metropolitan Borough Council, Waste Needs Assessment for Solihull   |
| <b>Staffordshire</b>  | Staffordshire County Council planning application search<br>Staffordshire County Council, Annual Monitoring Report 2021/2022   |
| <b>Warwickshire</b>   | Warwickshire County Council, Minerals and Waste Planning Applications Search (March 2023)  |
| <b>Worcestershire</b> | Worcestershire County Council, Planning Application Search (March 2023)  |

# Appendix C

## C&I and CD&EW Data

The following tables show the breakdown of data obtained from the WDI and how the total C&I arisings and CD&EW arisings for 2015-2021 were calculated. It should be read in conjunction with the methodology in appendix B. All figures have been rounded to the nearest tonne. Due to the limitations of the data source used, the estimates can only be regarded as an approximate indicator of C&I Waste arising and CD&EW arising in Sandwell. The WDI only records information on 'controlled' waste received at permitted waste sites regulated by the Environment Agency in the specified calendar year.

The Environment Agency 'Basic Waste Categories' are as follows: Hhold/ Ind/ Com = Household, Industrial and Commercial Waste, Inert/ C&D = Inert/ Construction and Demolition Waste. Hazardous Waste has been excluded from the estimate to avoid double-counting as this is regarded as a separate waste stream and actual data on Hazardous Waste Arisings is reported separately.

### 2021 C&I Waste Arisings

**Table C.1 Waste Received at Permitted Waste Sites in England in 2021 – Origin Codeable to Sandwell: C&I Waste (tonnes)**

| Basic Waste Category                              | Estimated C&I Waste - Tonnes |
|---|------------------------------|
|   | Sandwell                     |
| <b>Hhold/ Ind/ Com Waste - All</b>                | <b>380,640</b>               |
| Minus Mine and Quarry Wastes (EWC 01)             | 0                            |
| Minus Agricultural Wastes (sub chapter of EWC 02) | -24                          |
| Minus C&D Wastes (EWC 17)                         | 0                            |
| Minus Secondary / Treatment Wastes (EWC 19)       | -156,588                     |
| Minus Municipal Wastes (EWC 20)                   | -196,703                     |
| Non-household C&I waste                           | 17,885                       |
| <b>Hhold/ Ind/ Com - Sub Total</b>                | <b>45,210</b>                |
| <b>Inert/ C&amp;D - All</b>                       | <b>201,136</b>               |
| Minus Mine and Quarry Wastes (EWC 01)             | 0                            |
| Minus Agricultural / Food Wastes (EWC 02)         | 0                            |

| Basic Waste Category                        | Estimated C&I Waste - Tonnes |
|---|------------------------------|
|   | Sandwell                     |
| Minus C&D Wastes (EWC 17)                   | -200,779                     |
| Minus Secondary / Treatment Wastes (EWC 19) | 0                            |
| Minus Municipal Wastes (EWC 20)             | -324                         |
| <b>Inert/ C&amp;D - Sub Total</b>           | <b>33</b>                    |
| <b>Grand Total</b>                          | <b>45,243</b>                |

Source: Environment Agency Waste Data Interrogator (WDI) 2021

**Table C.2 Waste Received at Permitted Waste Sites in England in 2021 – Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated': C&I Waste**

| Basic Waste Category                              | C&I Waste Origin West Midlands Not Codeable/<br>Estimated - Tonnes |
|---|--|
| <b>Hhold/ Ind/ Com Waste - All</b>                | <b>3,152,258</b>   |
| Minus Mine and Quarry Wastes (EWC 01)             | -258   |
| Minus Agricultural Wastes (sub chapter of EWC 02) | -5,012   |
| Minus CD&EW (EWC 17)                              | 0  |
| Minus Secondary Wastes (EWC 19)                   | -1,191,564   |
| Minus Household Wastes (EWC20)                    | -1,389,414   |
| Non-household C&I waste                           | 150,449  |
| <b>Hhold/ Ind/ Com Waste - Sub Total</b>          | <b>716,459</b>   |
| <b>Inert/ C&amp;D - All</b>                       | <b>1,810,723</b>   |
| Minus Mine and Quarry Wastes (EWC 01)             | -117   |
| Minus Agricultural Wastes (EWC 02)                | 0  |
| Minus CD&EW (EWC 17)                              | -1,690,335   |
| Minus Secondary Wastes (EWC 19)                   | -18,695  |
| Minus Household Wastes (EWC20)                    | -83,916  |
| <b>Inert/ C&amp;D - Sub Total</b>                 | <b>17,660</b>  |

| Basic Waste Category | C&I Waste Origin West Midlands Not Codeable/<br>Estimated - Tonnes |
|----------------------|--|
| <b>Grand Total</b>   | <b>734,118</b>   |

Source: Environment Agency Waste Data Interrogator (WDI) 2021  
 Figures include Origin 'West Midlands Estimated' records from the 2021 WDI

**Table C.3 Estimated C&I Waste Arising in the West Midlands, Origin Not Codeable/ Estimated in 2021 - Apportionment to Sandwell**

| West Midlands Not Codeable Waste - Estimated C&I Waste<br>Arising in 2021 (tonnes) | Sandwell |
|--|----------|
| 734,118  |          |
| <b>Apportionment to Sandwell %</b>   | 4.36%    |
| <b>Apportionment to Sandwell (tonnes)</b>  | 32,040   |

Source: Environment Agency Waste Data Interrogator (WDI) 2021, NOMIS Business Counts 2021, Enterprises by Industry

The total figure is all waste Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated' falling within the Hhold/ Ind/ Com and Inert/ C&D Basic Waste Categories, minus Agricultural (subchapter of EWC 02), C&D Waste (EWC 17), Secondary/ Treatment Wastes (EWC 19) and Municipal Wastes (EWC 20).

Apportionment is based on NOMIS Business Counts Enterprises by Industry 2021: Total Enterprises in Sandwell as % of Total Enterprises in the West Midlands.

**Table C.4 Summary - Estimated C&I Waste Arising in Sandwell in 2021 (tonnes)**

| C&I Waste Arisings - Source of Evidence   | Estimated C&I Waste Arisings in 2021<br>(tonnes)<br>Sandwell |
|---|--|
| C&I Waste Origin Codeable to Sandwell   | 45,243   |
| C&I Waste Origin West Midlands WPA Not Codeable/<br>West Midlands Estimated Apportioned to Sandwell | 32,040   |
| <b>Total</b>  | <b>77,282</b>  |

Environment Agency Waste Data Interrogator (WDI) 2021, NOMIS Business Counts 2021, Enterprises by Industry

The above estimates do not include waste managed under 'exemptions' from permitting such as C&I Waste managed in-house by businesses or waste re-used or recycled by businesses as part of an industrial process.



## 2021 CD&EW Waste Arisings

**Table C.5 Waste Received at Permitted Waste Sites in England in 2021 – Origin Codeable to Sandwell: CD&EW (tonnes)**

| Basic Waste Category                               | Origin WPA - Tonnes<br>Sandwell |
|--|---------------------------------|
| <b>Hhold/ Ind/ Com Waste - All</b>                 | <b>380,640</b>                  |
| Mine and Quarry Waste Only (EWC 01)                | 0                               |
| CD&EW Only (EWC 17)                                | 0                               |
| <b>Hhold/ Ind/ Com (EWC 01 and 17) - Sub Total</b> | <b>0</b>                        |
| <b>Inert/ C&amp;D - All</b>                        | <b>201,136</b>                  |
| Mine and Quarry Waste Only (EWC 01)                | 0                               |
| CD&EW Only (EWC 17)                                | 200,779                         |
| <b>Inert/ C&amp;D (EWC 01 and 17) - Sub Total</b>  | <b>200,779</b>                  |
| <b>Grand Total</b>                                 | <b>200,779</b>                  |

Source: Environment Agency Waste Data Interrogator (WDI) 2021

**Table C.6 Waste Received at Permitted Waste Sites in England in 2021 – Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated': CD&EW**

| Basic Waste Category                                  | Origin West Midlands<br>WPA Not Codeable |
|---|--|
| <b>Hhold/ Ind/ Com Waste - All</b>                    | <b>3,152,258</b>                         |
| Mine and Quarry Waste Only (EWC 01)                   | 258                                      |
| CD&EW Only (EWC 17)                                   | 0  |
| <b>Hhold/ Ind/ Com Waste (EWC 01, 17) - Sub Total</b> | <b>258</b>                               |
| <b>Inert/ C&amp;D - All</b>                           | <b>1,810,723</b>                         |
| Mine and Quarry Waste Only (EWC 01)                   | 117                                      |
| CD&EW Only (EWC 17)                                   | 1,690,335                                |
| <b>Inert/ C&amp;D (EWC 01, 17) - Sub Total</b>        | <b>1,690,452</b>                         |
| <b>Grand Total</b>                                    | <b>1,690,710</b>                         |

Source: Environment Agency Waste Data Interrogator (WDI) 2021

**Table C.7 Estimated CD&EW Waste Arising in the West Midlands, Origin Not Codeable/ Estimated in 2021 - Apportionment to Sandwell**

| CD&EW Waste Origin West Midlands WPA Not Codeable / Estimated in 2021 (tonnes) | Sandwell |
|--|----------|
| 1,690,710  |          |
| <b>Apportionment to Sandwell %</b>   | 4.25%    |
| <b>Apportionment to Sandwell (tonnes)</b>                                      | 71,838   |

Environment Agency Waste Data Interrogator (WDI) 2021, NOMIS Business Counts 2021, Enterprises by Industry

The total figure is all waste Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated' falling within the Hhold/ Ind/ Com and Inert/ C&D Basic Waste Categories, Mine and Quarry Waste (EWC 01) and CD&EW (EWC 17) Only.

Apportionment is based on NOMIS Business Counts Enterprises by Industry 2021: Sandwell Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries) as % of West Midlands Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries).

**Table C.8 Summary - Estimated CD&EW Arising in Sandwell in 2021 (tonnes)**

| CD&EW Waste Arisings - Source of Evidence  | Estimated CD&EW Waste Arisings in 2021 (tonnes)<br>Sandwell |
|--|---|
| CD&EW Origin Codeable to Sandwell  | 200,779   |
| CD&EW Origin West Midlands WPA Not Codeable/ West Midlands Estimated Apportioned to Sandwell | 71,838  |
| <b>Total</b>   | <b>272,617</b>  |

Source: Environment Agency Waste Data Interrogator (WDI) 2021, NOMIS Business Counts 2021, Enterprises by Industry

The above estimates do not include waste managed under 'exemptions' from permitting, such as CD&EW managed on-site as part of land remediation, engineering or construction projects.

## 2020 C&I Waste Arisings

**Table C.9 Waste Received at Permitted Waste Sites in England in 2020 – Origin Codeable to Sandwell: C&I Waste (tonnes)**

| Basic Waste Category                              | Estimated C&I Waste - Tonnes |
|---|------------------------------|
|   | Sandwell                     |
| <b>Hhold/ Ind/ Com Waste - All</b>                | <b>464,029</b>               |
| Minus Mine and Quarry Wastes (EWC 01)             | 0                            |
| Minus Agricultural Wastes (sub chapter of EWC 02) | -183                         |
| Minus C&D Wastes (EWC 17)                         | 0                            |
| Minus Secondary / Treatment Wastes (EWC 19)       | -181,722                     |
| Minus Municipal Wastes (EWC 20)                   | -265,660                     |
| Non-household C&I waste (% varies for each WPA)   | 21,443                       |
| <b>Hhold/ Ind/ Com - Sub Total</b>                | <b>37,907</b>                |
| <b>Inert/ C&amp;D - All</b>                       | <b>77,415</b>                |
| Minus Mine and Quarry Wastes (EWC 01)             | 0                            |
| Minus Agricultural / Food Wastes (EWC 02)         | 0                            |
| Minus C&D Wastes (EWC 17)                         | -75,981                      |
| Minus Secondary / Treatment Wastes (EWC 19)       | -1,423                       |
| Minus Municipal Wastes (EWC 20)                   | 0                            |
| <b>Inert/ C&amp;D - Sub Total</b>                 | <b>10</b>                    |
| <b>Grand Total</b>                                | <b>37,917</b>                |

Source: Environment Agency Waste Data Interrogator (WDI) 2020

**Table C.10 Waste Received at Permitted Waste Sites in England in 2020 – Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated': C&I Waste**

| Basic Waste Category                  | C&I Waste Origin West Midlands Not Codeable/<br>Estimated - Tonnes |
|---------------------------------------|--|
| <b>Hhold/ Ind/ Com Waste - All</b>    | <b>2,819,939</b>   |
| Minus Mine and Quarry Wastes (EWC 01) | -270   |

| Basic Waste Category                              | C&I Waste Origin West Midlands Not Codeable/<br>Estimated - Tonnes |
|---|--|
| Minus Agricultural Wastes (sub chapter of EWC 02) | -4,292   |
| Minus CD&EW (EWC 17)                              | 0  |
| Minus Secondary Wastes (EWC 19)                   | -1,022,857   |
| Minus Household Wastes (EWC20)                    | -1,299,633   |
| Non-household C&I waste                           | 127,836  |
| <b>Hhold/ Ind/ Com Waste - Sub Total</b>          | <b>620,722</b>   |
| <b>Inert/ C&amp;D - All</b>                       | <b>1,756,881</b>   |
| Minus Mine and Quarry Wastes (EWC 01)             | -599   |
| Minus Agricultural Wastes (EWC 02)                | 0  |
| Minus CD&EW (EWC 17)                              | -1,658,921   |
| Minus Secondary Wastes (EWC 19)                   | -14,534  |
| Minus Household Wastes (EWC20)                    | -72,911  |
| <b>Inert/ C&amp;D - Sub Total</b>                 | <b>9,915</b>   |
| <b>Grand Total</b>                                | <b>630,637</b>   |

Source: Environment Agency Waste Data Interrogator (WDI) 2020  
 Figures include Origin 'West Midlands Estimated' records from the 2020 WDI

**Table C.11 Estimated C&I Waste Arising in the West Midlands, Origin Not Codeable/ Estimated in 2020 - Apportionment to Sandwell**

| West Midlands Not Codeable Waste - Estimated C&I Waste Arising in<br>2020 (tonnes) | Sandwell |
|--|----------|
| 630,637  |          |
| <b>Apportionment to Sandwell %</b>   | 4.10%    |
| <b>Apportionment to Sandwell (tonnes)</b>  | 25,856   |

Source: Environment Agency Waste Data Interrogator (WDI) 2020, NOMIS Business Counts 2020, Enterprises by Industry

The total figure is all waste Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated' falling within the Hhold/ Ind/ Com and Inert/ C&D Basic Waste Categories, minus Agricultural (subchapter of EWC 02), C&D Waste (EWC 17), Secondary/ Treatment Wastes (EWC 19) and Municipal Wastes (EWC 20).

Apportionment is based on NOMIS Business Counts Enterprises by Industry 2020: Total Enterprises in Sandwell as % of Total Enterprises in the West Midlands.

**Table C.12 Summary - Estimated C&I Waste Arising in Sandwell in 2020 (tonnes)**

| C&I Waste Arisings - Source of Evidence  | Estimated C&I Waste Arisings in 2020 (tonnes) |
|--|---|
|  | Sandwell                                      |
| C&I Waste Origin Codeable to Sandwell  | 37,917  |
| C&I Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated Apportioned to Sandwell | 25,856  |
| <b>Total</b>   | <b>63,773</b>                                 |

Environment Agency Waste Data Interrogator (WDI) 2020, NOMIS Business Counts 2020, Enterprises by Industry

The above estimates do not include waste managed under 'exemptions' from permitting such as C&I Waste managed in-house by businesses or waste re-used or recycled by businesses as part of an industrial process.

## 2020 CD&EW Waste Arisings

**Table C.13 Waste Received at Permitted Waste Sites in England in 2020 – Origin Codeable to Sandwell: CD&EW (tonnes)**

| Basic Waste Category                               | Origin WPA - Tonnes Sandwell |
|--|------------------------------|
| <b>Hhold/ Ind/ Com Waste - All</b>                 | <b>464,029</b>               |
| Mine and Quarry Waste Only (EWC 01)                | 0                            |
| CD&EW Only (EWC 17)                                | 0                            |
| <b>Hhold/ Ind/ Com (EWC 01 and 17) - Sub Total</b> | <b>0</b>                     |
| <b>Inert/ C&amp;D - All</b>                        | <b>77,415</b>                |
| Mine and Quarry Waste Only (EWC 01)                | 0                            |
| CD&EW Only (EWC 17)                                | 75,981                       |
| <b>Inert/ C&amp;D (EWC 01 and 17) - Sub Total</b>  | <b>75,981</b>                |
| <b>Grand Total</b>                                 | <b>75,981</b>                |

Source: Environment Agency Waste Data Interrogator (WDI) 2020

**Table C.14 Waste Received at Permitted Waste Sites in England in 2020 – Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated': CD&EW**

| Basic Waste Category                                  | Origin West Midlands<br>WPA Not Codeable |
|---|--|
| <b>Hhold/ Ind/ Com Waste - All</b>                    | <b>2,819,939</b>                         |
| Mine and Quarry Waste Only (EWC 01)                   | 270                                      |
| CD&EW Only (EWC 17)                                   | 0  |
| <b>Hhold/ Ind/ Com Waste (EWC 01, 17) - Sub Total</b> | <b>270</b>                               |
| <b>Inert/ C&amp;D - All</b>                           | <b>1,756,881</b>                         |
| Mine and Quarry Waste Only (EWC 01)                   | 599                                      |
| CD&EW Only (EWC 17)                                   | 1,658,921                                |
| <b>Inert/ C&amp;D (EWC 01, 17) - Sub Total</b>        | <b>1,659,521</b>                         |
| <b>Grand Total</b>                                    | <b>1,659,791</b>                         |

Source: Environment Agency Waste Data Interrogator (WDI) 2020

**Table C.15 Estimated CD&EW Waste Arising in the West Midlands, Origin Not Codeable/ Estimated in 2020 - Apportionment to Sandwell**

| CD&EW Waste Origin West Midlands WPA Not Codeable / Estimated in<br>2020 (tonnes) | Sandwell      |
|---|---------------|
| <b>1,659,791</b>  |               |
| <b>Apportionment to Sandwell %</b>  | <b>4.02%</b>  |
| <b>Apportionment to Sandwell (tonnes)</b>   | <b>66,724</b> |

Environment Agency Waste Data Interrogator (WDI) 2020, NOMIS Business Counts 2020, Enterprises by Industry

The total figure is all waste Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated' falling within the Hhold/ Ind/ Com and Inert/ C&D Basic Waste Categories, Mine and Quarry Waste (EWC 01) and CD&EW (EWC 17) Only.

Apportionment is based on NOMIS Business Counts Enterprises by Industry 2020: Sandwell Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries) as % of West Midlands Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries).

**Table C.16 Summary - Estimated CD&EW Arising in Sandwell in 2020 (tonnes)**

| CD&EW Waste Arisings - Source of Evidence  | Estimated CD&EW Waste Arisings in 2020 (tonnes) |
|--|---|
|  | Sandwell  |
| CD&EW Origin Codeable to Sandwell  | 75,981  |
| CD&EW Origin West Midlands WPA Not Codeable/ West Midlands Estimated Apportioned to Sandwell | 66,724  |
| <b>Total</b>   | <b>142,705</b>                                  |

Source: Environment Agency Waste Data Interrogator (WDI) 2020, NOMIS Business Counts 2020, Enterprises by Industry

The above estimates do not include waste managed under 'exemptions' from permitting, such as CD&EW managed on-site as part of land remediation, engineering or construction projects.

## 2019 C&I Waste Arisings

**Table C.17 Waste Received at Permitted Waste Sites in England in 2019 – Origin Codeable to Sandwell: C&I Waste (tonnes)**

| Basic Waste Category                              | Estimated C&I Waste - Tonnes |
|---|------------------------------|
|   | Sandwell                     |
| <b>Hhold/ Ind/ Com Waste - All</b>                | <b>466,746</b>               |
| Minus Mine and Quarry Wastes (EWC 01)             | 0                            |
| Minus Agricultural Wastes (sub chapter of EWC 02) | -1,123                       |
| Minus C&D Wastes (EWC 17)                         | 0                            |
| Minus Secondary / Treatment Wastes (EWC 19)       | -185,939                     |
| Minus Municipal Wastes (EWC 20)                   | -261,402                     |
| Non-household C&I waste                           | 25,531                       |
| <b>Hhold/ Ind/ Com - Sub Total</b>                | <b>43,813</b>                |
| <b>Inert/ C&amp;D - All</b>                       | <b>87,123</b>                |
| Minus Mine and Quarry Wastes (EWC 01)             | 0                            |
| Minus Agricultural / Food Wastes (EWC 02)         | 0                            |
| Minus C&D Wastes (EWC 17)                         | -81,869                      |
| Minus Secondary / Treatment Wastes (EWC 19)       | -5,238                       |

| Basic Waste Category              | Estimated C&I Waste - Tonnes |
|-----------------------------------|------------------------------|
|                                   | Sandwell                     |
| Minus Municipal Wastes (EWC 20)   | -1                           |
| <b>Inert/ C&amp;D - Sub Total</b> | <b>16</b>                    |
| <b>Grand Total</b>                | <b>43,829</b>                |

Source: Environment Agency Waste Data Interrogator (WDI) 2019

**Table C.18 Waste Received at Permitted Waste Sites in England in 2019 – Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated': C&I Waste**

| Basic Waste Category                              | C&I Waste Origin West Midlands Not Codeable/<br>Estimated - Tonnes |
|---|--|
| <b>Hhold/ Ind/ Com Waste - All</b>                | <b>3,322,305</b>   |
| Minus Mine and Quarry Wastes (EWC 01)             | -596   |
| Minus Agricultural Wastes (sub chapter of EWC 02) | -926   |
| Minus CD&EW (EWC 17)                              | 0  |
| Minus Secondary Wastes (EWC 19)                   | -1,225,572   |
| Minus Household Wastes (EWC20)                    | -1,567,792   |
| Non-household C&I waste                           | 177,010  |
| <b>Hhold/ Ind/ Com Waste - Sub Total</b>          | <b>704,430</b>   |
| <b>Inert/ C&amp;D - All</b>                       | <b>2,050,454</b>   |
| Minus Mine and Quarry Wastes (EWC 01)             | -257   |
| Minus Agricultural Wastes (EWC 02)                | 0  |
| Minus CD&EW (EWC 17)                              | -1,916,382   |
| Minus Secondary Wastes (EWC 19)                   | -8,598   |
| Minus Household Wastes (EWC20)                    | -110,226   |
| <b>Inert/ C&amp;D - Sub Total</b>                 | <b>14,990</b>  |
| <b>Grand Total</b>                                | <b>719,420</b>   |

Source: Environment Agency Waste Data Interrogator (WDI) 2019

Figures include Origin 'West Midlands Estimated' records from the 2019 WDI



**Table C.19 Estimated C&I Waste Arising in the West Midlands, Origin Not Codeable/ Estimated in 2019 - Apportionment to Sandwell**

| West Midlands Not Codeable Waste - Estimated C&I Waste Arising in 2019 (tonnes) | Sandwell |
|---|----------|
| 719,420   |          |
| <b>Apportionment to Sandwell %</b>  | 4.15%    |
| <b>Apportionment to Sandwell (tonnes)</b>                                       | 29,856   |

Source: Environment Agency Waste Data Interrogator (WDI) 2019, NOMIS Business Counts 2019, Enterprises by Industry

The total figure is all waste Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated' falling within the Hhold/ Ind/ Com and Inert/ C&D Basic Waste Categories, minus Agricultural (subchapter of EWC 02), C&D Waste (EWC 17), Secondary/ Treatment Wastes (EWC 19) and Municipal Wastes (EWC 20).

Apportionment is based on NOMIS Business Counts Enterprises by Industry 2019: Total Enterprises in Sandwell as % of Total Enterprises in the West Midlands.

**Table C.20 Summary - Estimated C&I Waste Arising in Sandwell in 2019 (tonnes)**

| C&I Waste Arisings - Source of Evidence  | Estimated C&I Waste Arisings in 2019 (tonnes) Sandwell |
|--|--|
| C&I Waste Origin Codeable to Sandwell  | 43,829   |
| C&I Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated Apportioned to Sandwell | 29,856   |
| <b>Total</b>   | <b>73,684</b>  |

Environment Agency Waste Data Interrogator (WDI) 2019, NOMIS Business Counts 2019, Enterprises by Industry

The above estimates do not include waste managed under 'exemptions' from permitting such as C&I Waste managed in-house by businesses or waste re-used or recycled by businesses as part of an industrial process.

## 2019 CD&EW Waste Arisings

**Table C.21 Waste Received at Permitted Waste Sites in England in 2019 – Origin Codeable to Sandwell: CD&EW (tonnes)**

| Basic Waste Category                | Origin WPA - Tonnes |
|-------------------------------------|---------------------|
|                                     | Sandwell            |
| <b>Hhold/ Ind/ Com Waste - All</b>  | <b>466,746</b>      |
| Mine and Quarry Waste Only (EWC 01) | 0                   |

| Basic Waste Category                               | Origin WPA - Tonnes |
|--|---------------------|
|  | Sandwell            |
| CD&EW Only (EWC 17)                                | 0                   |
| <b>Hhold/ Ind/ Com (EWC 01 and 17) - Sub Total</b> | <b>0</b>            |
| <b>Inert/ C&amp;D - All</b>                        | <b>87,123</b>       |
| Mine and Quarry Waste Only (EWC 01)                | 0                   |
| CD&EW Only (EWC 17)                                | 81,869              |
| <b>Inert/ C&amp;D (EWC 01 and 17) - Sub Total</b>  | <b>81,869</b>       |
| <b>Grand Total</b>                                 | <b>81,869</b>       |

Source: Environment Agency Waste Data Interrogator (WDI) 2019

**Table C.22 Waste Received at Permitted Waste Sites in England in 2019 – Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated': CD&EW**

| Basic Waste Category                                  | Origin West Midlands WPA Not Codeable |
|---|---------------------------------------|
| <b>Hhold/ Ind/ Com Waste - All</b>                    | <b>3,322,305</b>                      |
| Mine and Quarry Waste Only (EWC 01)                   | 596                                   |
| CD&EW Only (EWC 17)                                   | 0                                     |
| <b>Hhold/ Ind/ Com Waste (EWC 01, 17) - Sub Total</b> | <b>596</b>                            |
| <b>Inert/ C&amp;D - All</b>                           | <b>2,050,454</b>                      |
| Mine and Quarry Waste Only (EWC 01)                   | 257                                   |
| CD&EW Only (EWC 17)                                   | 1,916,382                             |
| <b>Inert/ C&amp;D (EWC 01, 17) - Sub Total</b>        | <b>1,916,640</b>                      |
| <b>Grand Total</b>                                    | <b>1,917,236</b>                      |

Source: Environment Agency Waste Data Interrogator (WDI) 2019

**Table C.23 Estimated CD&EW Waste Arising in the West Midlands, Origin Not Codeable/ Estimated in 2019 - Apportionment to Sandwell**

| CD&EW Waste Origin West Midlands WPA Not Codeable / Estimated in 2019 (tonnes) | Sandwell |
|--|----------|
| <b>1,917,236</b>   |          |

**Apportionment to Sandwell %** 3.88%

**Apportionment to Sandwell (tonnes)** **74,389**

Environment Agency Waste Data Interrogator (WDI) 2019, NOMIS Business Counts 2019, Enterprises by Industry

The total figure is all waste Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated' falling within the Hhold/ Ind/ Com and Inert/ C&D Basic Waste Categories, Mine and Quarry Waste (EWC 01) and CD&EW (EWC 17) Only.

Apportionment is based on NOMIS Business Counts Enterprises by Industry 2019: Sandwell Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries) as % of West Midlands Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries).

**Table C.24 Summary - Estimated CD&EW Arising in Sandwell in 2019 (tonnes)**

| <b>CD&amp;EW Waste Arisings - Source of Evidence</b>  | <b>Estimated CD&amp;EW Waste Arisings in 2019 (tonnes) Sandwell</b> |
|---|---|
| <b>CD&amp;EW Origin Codeable to Sandwell</b>  | 81,869  |
| <b>CD&amp;EW Origin West Midlands WPA Not Codeable/ West Midlands Estimated Apportioned to Sandwell</b> | 74,389  |
| <b>Total</b>  | <b>156,257</b>  |

Source: Environment Agency Waste Data Interrogator (WDI) 2019, NOMIS Business Counts 2019, Enterprises by Industry

The above estimates do not include waste managed under 'exemptions' from permitting, such as CD&EW managed on-site as part of land remediation, engineering or construction projects.

## 2018 C&I Waste Arisings

**Table C.25 Waste Received at Permitted Waste Sites in England in 2018 – Origin Codeable to Sandwell: C&I Waste (tonnes)**

| Basic Waste Category                              | Estimated C&I Waste - Tonnes Sandwell |
|---|---------------------------------------|
| <b>Hhold/ Ind/ Com Waste - All</b>                | <b>356,125</b>                        |
| Minus Mine and Quarry Wastes (EWC 01)             | 0                                     |
| Minus Agricultural Wastes (sub chapter of EWC 02) | -12,075                               |
| Minus C&D Wastes (EWC 17)                         | 0                                     |
| Minus Secondary / Treatment Wastes (EWC 19)       | -130,406                              |
| Minus Municipal Wastes (EWC 20)                   | -208,678                              |
| Non-household C&I waste (% varies for each WPA)   | 18,739                                |
| <b>Hhold/ Ind/ Com - Sub Total</b>                | <b>23,705</b>                         |
| <b>Inert/ C&amp;D - All</b>                       | <b>146,602</b>                        |
| Minus Mine and Quarry Wastes (EWC 01)             | -108                                  |
| Minus Agricultural / Food Wastes (EWC 02)         | 0                                     |
| Minus C&D Wastes (EWC 17)                         | -142,566                              |
| Minus Secondary / Treatment Wastes (EWC 19)       | -2,924                                |
| Minus Municipal Wastes (EWC 20)                   | -985                                  |
| <b>Inert/ C&amp;D - Sub Total</b>                 | <b>20</b>                             |
| <b>Grand Total</b>                                | <b>23,725</b>                         |

Source: Environment Agency Waste Data Interrogator (WDI) 2018

**Table C.26 Waste Received at Permitted Waste Sites in England in 2018 – Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated': C&I Waste**

| Basic Waste Category                  | C&I Waste Origin West Midlands Not Codeable/ Estimated - Tonnes |
|---------------------------------------|---|
| <b>Hhold/ Ind/ Com Waste - All</b>    | <b>3,186,360</b>  |
| Minus Mine and Quarry Wastes (EWC 01) | -562  |

| Basic Waste Category                              | C&I Waste Origin West Midlands Not Codeable/<br>Estimated - Tonnes |
|---|--|
| Minus Agricultural Wastes (sub chapter of EWC 02) | -31,107  |
| Minus CD&EW (EWC 17)                              | 0  |
| Minus Secondary Wastes (EWC 19)                   | -1,501,786   |
| Minus Household Wastes (EWC20)                    | -1,275,403   |
| Non-household C&I waste                           | 141,198  |
| <b>Hhold/ Ind/ Com Waste - Sub Total</b>          | <b>518,700</b>   |
| <b>Inert/ C&amp;D - All</b>                       | <b>2,260,973</b>   |
| Minus Mine and Quarry Wastes (EWC 01)             | -58  |
| Minus Agricultural Wastes (EWC 02)                | 0  |
| Minus CD&EW (EWC 17)                              | -2,129,572   |
| Minus Secondary Wastes (EWC 19)                   | -8,607   |
| Minus Household Wastes (EWC20)                    | -105,446   |
| <b>Inert/ C&amp;D - Sub Total</b>                 | <b>17,290</b>  |
| <b>Grand Total</b>                                | <b>535,990</b>   |

Source: Environment Agency Waste Data Interrogator (WDI) 2018  
 Figures include Origin 'West Midlands Estimated' records from the 2018 WDI

**Table C.27 Estimated C&I Waste Arising in the West Midlands, Origin Not Codeable/ Estimated in 2018 - Apportionment to Sandwell**

| West Midlands Not Codeable Waste - Estimated C&I<br>Waste Arising in 2018 (tonnes) | Sandwell |
|--|----------|
| 535,990  |          |
| Apportionment to Sandwell %  | 4.13%    |
| Apportionment to Sandwell (tonnes)   | 22,136   |

Source: Environment Agency Waste Data Interrogator (WDI) 2018, NOMIS Business Counts 2018, Enterprises by Industry

The total figure is all waste Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated' falling within the Hhold/ Ind/ Com and Inert/ C&D Basic Waste Categories, minus Agricultural (subchapter of EWC 02), C&D Waste (EWC 17), Secondary/ Treatment Wastes (EWC 19) and Municipal Wastes (EWC 20).

Apportionment is based on NOMIS Business Counts Enterprises by Industry 2018: Total Enterprises in Sandwell as % of Total Enterprises in the West Midlands.

**Table C.28 Summary - Estimated C&I Waste Arising in Sandwell in 2018 (tonnes)**

| C&I Waste Arisings - Source of Evidence  | Estimated C&I Waste Arisings in 2018 (tonnes)<br>Sandwell |
|--|---|
| C&I Waste Origin Codeable to Sandwell  | 23,725  |
| C&I Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated Apportioned to Sandwell | 22,136  |
| <b>Total</b>   | <b>45,862</b>   |

Environment Agency Waste Data Interrogator (WDI) 2018, NOMIS Business Counts 2018, Enterprises by Industry

The above estimates do not include waste managed under 'exemptions' from permitting such as C&I Waste managed in-house by businesses or waste re-used or recycled by businesses as part of an industrial process.

## 2018 CD&EW Waste Arisings

**Table C.29 Waste Received at Permitted Waste Sites in England in 2018 – Origin Codeable to Sandwell: CD&EW (tonnes)**

| Basic Waste Category                               | Origin WPA - Tonnes<br>Sandwell |
|--|---------------------------------|
| <b>Hhold/ Ind/ Com Waste - All</b>                 | <b>356,125</b>                  |
| Mine and Quarry Waste Only (EWC 01)                | 0                               |
| CD&EW Only (EWC 17)                                | 0                               |
| <b>Hhold/ Ind/ Com (EWC 01 and 17) - Sub Total</b> | <b>0</b>                        |
| <b>Inert/ C&amp;D - All</b>                        | <b>146,602</b>                  |
| Mine and Quarry Waste Only (EWC 01)                | 108                             |
| CD&EW Only (EWC 17)                                | 142,566                         |
| <b>Inert/ C&amp;D (EWC 01 and 17) - Sub Total</b>  | <b>142,674</b>                  |
| <b>Grand Total</b>                                 | <b>142,674</b>                  |

Source: Environment Agency Waste Data Interrogator (WDI) 2018

**Table C.30 Waste Received at Permitted Waste Sites in England in 2018 – Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated': CD&EW**

| Basic Waste Category                                  | Origin West Midlands WPA Not Codeable |
|---|---------------------------------------|
| <b>Hhold/ Ind/ Com Waste - All</b>                    | 3,186,360                             |
| Mine and Quarry Waste Only (EWC 01)                   | 562                                   |
| CD&EW Only (EWC 17)                                   | 0                                     |
| <b>Hhold/ Ind/ Com Waste (EWC 01, 17) - Sub Total</b> | <b>562</b>                            |
| <b>Inert/ C&amp;D - All</b>                           | <b>2,260,973</b>                      |
| Mine and Quarry Waste Only (EWC 01)                   | 58                                    |
| CD&EW Only (EWC 17)                                   | 2,129,572                             |
| <b>Inert/ C&amp;D (EWC 01, 17) - Sub Total</b>        | <b>2,129,630</b>                      |
| <b>Grand Total</b>                                    | <b>2,130,192</b>                      |

Source: Environment Agency Waste Data Interrogator (WDI) 2018

**Table C.31 Estimated CD&EW Waste Arising in the West Midlands, Origin Not Codeable/ Estimated in 2018 - Apportionment to Sandwell**

| CD&EW Waste Origin West Midlands WPA Not Codeable / Estimated in 2018 (tonnes) | Sandwell |
|--|----------|
| <b>2,130,192</b>   |          |
| <b>Apportionment to Sandwell %</b>   | 3.88%    |
| <b>Apportionment to Sandwell (tonnes)</b>                                      | 82,651   |

Environment Agency Waste Data Interrogator (WDI) 2018, NOMIS Business Counts 2018, Enterprises by Industry

The total figure is all waste Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated' falling within the Hhold/ Ind/ Com and Inert/ C&D Basic Waste Categories, Mine and Quarry Waste (EWC 01) and CD&EW (EWC 17) Only.

Apportionment is based on NOMIS Business Counts Enterprises by Industry 2018: Sandwell Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries) as % of West Midlands Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries).

**Table C.32 Summary - Estimated CD&EW Arising in Sandwell in 2018 (tonnes)**

| CD&EW Waste Arisings - Source of Evidence  | Estimated CD&EW Waste Arisings in 2018 (tonnes) Sandwell |
|--|--|
| CD&EW Origin Codeable to Sandwell  | 142,674  |
| CD&EW Origin West Midlands WPA Not Codeable/ West Midlands Estimated Apportioned to Sandwell | 82,651   |
| <b>Total</b>   | <b>225,326</b>   |

Source: Environment Agency Waste Data Interrogator (WDI) 2018, NOMIS Business Counts 2018, Enterprises by Industry

The above estimates do not include waste managed under 'exemptions' from permitting, such as CD&EW managed on-site as part of land remediation, engineering or construction projects.



## 2017 C&I Waste Arisings

**Table C.33 Waste Received at Permitted Waste Sites in England in 2017 – Origin Codeable to Sandwell: C&I Waste (tonnes)**

| Basic Waste Category                              | Estimated C&I Waste - Tonnes Sandwell |
|---|---------------------------------------|
| <b>Hhold/ Ind/ Com Waste - All</b>                | 395,044                               |
| Minus Mine and Quarry Wastes (EWC 01)             | 0                                     |
| Minus Agricultural Wastes (sub chapter of EWC 02) | -7,314                                |
| Minus C&D Wastes (EWC 17)                         | 0                                     |
| Minus Secondary / Treatment Wastes (EWC 19)       | -197,274                              |
| Minus Municipal Wastes (EWC 20)                   | -186,807                              |
| Non-household C&I waste (% varies for each WPA)   | 16,813                                |
| <b>Hhold/ Ind/ Com - Sub Total</b>                | <b>20,462</b>                         |
| <b>Inert/ C&amp;D - All</b>                       | 116,730                               |
| Minus Mine and Quarry Wastes (EWC 01)             | 0                                     |
| Minus Agricultural / Food Wastes (EWC 02)         | 0                                     |
| Minus C&D Wastes (EWC 17)                         | -113,547                              |
| Minus Secondary / Treatment Wastes (EWC 19)       | -2,484                                |
| Minus Municipal Wastes (EWC 20)                   | -689                                  |
| <b>Inert/ C&amp;D - Sub Total</b>                 | <b>10</b>                             |
| <b>Grand Total</b>                                | <b>20,472</b>                         |

Source: Environment Agency Waste Data Interrogator (WDI) 2017

**Table C.34 Waste Received at Permitted Waste Sites in England in 2017 – Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated': C&I Waste**

| Basic Waste Category                              | C&I Waste Origin West Midlands Not Codeable/<br>Estimated - Tonnes |
|---|--|
| <b>Hhold/ Ind/ Com Waste - All</b>                | <b>3,577,864</b>   |
| Minus Mine and Quarry Wastes (EWC 01)             | -51  |
| Minus Agricultural Wastes (sub chapter of EWC 02) | -17,224  |
| Minus CD&EW (EWC 17)                              | 0  |
| Minus Secondary Wastes (EWC 19)                   | -1,568,194   |
| Minus Household Wastes (EWC20)                    | -1,504,920   |
| Non-household C&I waste                           | 165,541  |
| <b>Hhold/ Ind/ Com Waste - Sub Total</b>          | <b>653,016</b>   |
| <b>Inert/ C&amp;D - All</b>                       | <b>2,226,859</b>   |
| Minus Mine and Quarry Wastes (EWC 01)             | -67  |
| Minus Agricultural Wastes (EWC 02)                | 0  |
| Minus CD&EW (EWC 17)                              | -2,073,132   |
| Minus Secondary Wastes (EWC 19)                   | -21,429  |
| Minus Household Wastes (EWC20)                    | -98,282  |
| <b>Inert/ C&amp;D - Sub Total</b>                 | <b>33,949</b>  |
| <b>Grand Total</b>                                | <b>686,965</b>   |

Source: Environment Agency Waste Data Interrogator (WDI) 2017  
 Figures include Origin 'West Midlands Estimated' records from the 2017 WDI

**Table C.35 Estimated C&I Waste Arising in the West Midlands, Origin Not Codeable/ Estimated in 2017 - Apportionment to Sandwell**

| West Midlands Not Codeable Waste - Estimated C&I<br>Waste Arising in 2017 (tonnes) | Sandwell |
|--|----------|
| <b>686,965</b>   |          |
| <b>Apportionment to Sandwell %</b>   | 4.10%    |
| <b>Apportionment to Sandwell (tonnes)</b>  | 28,166   |

Source: Environment Agency Waste Data Interrogator (WDI) 2017, NOMIS Business Counts 2017, Enterprises by Industry  
 The total figure is all waste Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated' falling within the Hhold/ Ind/ Com and Inert/ C&D Basic Waste Categories, minus Agricultural (subchapter of EWC 02), C&D Waste (EWC 17), Secondary/ Treatment Wastes (EWC 19), Municipal Wastes (EWC 20) and Inert Wastes (UKWS 21).

Apportionment is based on NOMIS Business Counts Enterprises by Industry 2017: Total Enterprises in Sandwell as % of Total Enterprises in the West Midlands.

**Table C.36 Summary - Estimated C&I Waste Arising in Sandwell in 2017 (tonnes)**

| C&I Waste Arisings - Source of Evidence  | Estimated C&I Waste Arisings in 2017 (tonnes) Sandwell |
|--|--|
| C&I Waste Origin Codeable to Sandwell  | 20,472   |
| C&I Waste Origin West Midlands WPA Not Codeable/ West Midlands Estimated Apportioned to Sandwell | 28,166   |
| <b>Total</b>   | <b>48,637</b>  |

Environment Agency Waste Data Interrogator (WDI) 2017, NOMIS Business Counts 2017, Enterprises by Industry

The above estimates do not include waste managed under 'exemptions' from permitting such as C&I Waste managed in-house by businesses or waste re-used or recycled by businesses as part of an industrial process.

## 2017 CD&EW Waste Arisings

**Table C.37 Waste Received at Permitted Waste Sites in England in 2017 – Origin Codeable to Sandwell: CD&EW (tonnes)**

| Basic Waste Category                               | Origin WPA - Tonnes Sandwell |
|--|------------------------------|
| <b>Hhold/ Ind/ Com Waste - All</b>                 | <b>395,044</b>               |
| Mine and Quarry Waste Only (EWC 01)                | 0                            |
| CD&EW Only (EWC 17)                                | 0                            |
| <b>Hhold/ Ind/ Com (EWC 01 and 17) - Sub Total</b> | <b>0</b>                     |
| <b>Inert/ C&amp;D - All</b>                        | <b>116,730</b>               |
| Mine and Quarry Waste Only (EWC 01)                | 0                            |
| CD&EW Only (EWC 17)                                | 113,547                      |
| <b>Inert/ C&amp;D (EWC 01 and 17) - Sub Total</b>  | <b>113,547</b>               |
| <b>Grand Total</b>                                 | <b>113,547</b>               |

Source: Environment Agency Waste Data Interrogator (WDI) 2017

**Table C.38 Waste Received at Permitted Waste Sites in England in 2017 – Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated': CD&EW**

| Basic Waste Category                                      | Origin West Midlands WPA Not Codeable |
|---|---------------------------------------|
| <b>Hhold/ Ind/ Com Waste - All</b>                        | 119                                   |
| Mine and Quarry Waste Only (EWC 01)                       | 51                                    |
| CD&EW Only (EWC 17)                                       | 0                                     |
| UKWS: Inert (EWC 21)                                      | 0                                     |
| <b>Hhold/ Ind/ Com Waste (EWC 01, 17, 21) - Sub Total</b> | <b>51</b>                             |
| <b>Inert/ C&amp;D - All</b>                               | <b>2,080,260</b>                      |
| Mine and Quarry Waste Only (EWC 01)                       | 67                                    |
| CD&EW Only (EWC 17)                                       | 2,073,132                             |
| UKWS: Inert (EWC 21)                                      | 2,000                                 |
| <b>Inert/ C&amp;D (EWC 01, 17, 21) - Sub Total</b>        | <b>2,075,199</b>                      |
| <b>Grand Total</b>  | <b>2,075,250</b>                      |

Source: Environment Agency Waste Data Interrogator (WDI) 2017

**Table C.39 Estimated CD&EW Waste Arising in the West Midlands, Origin Not Codeable/ Estimated in 2017 - Apportionment to Sandwell**

| CD&EW Waste Origin West Midlands WPA Not Codeable / Estimated in 2017 (tonnes) | Sandwell |
|--|----------|
| 2,075,250  |          |
| <b>Apportionment to Sandwell %</b>   | 3.69%    |
| <b>Apportionment to Sandwell (tonnes)</b>                                      | 76,577   |

Environment Agency Waste Data Interrogator (WDI) 2017, NOMIS Business Counts 2017, Enterprises by Industry

The total figure is all waste Origin 'West Midlands WPA Not Codeable' and 'West Midlands Estimated' falling within the Hhold/ Ind/ Com and Inert/ C&D Basic Waste Categories, Mine and Quarry Waste (EWC 01), CD&EW (EWC 17) and UKWS Inert (EWC 21) Only.

Apportionment is based on NOMIS Business Counts Enterprises by Industry 2017: Sandwell Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries) as % of West Midlands Enterprises falling within SIC Codes 39 - 43 (Construction and Related Industries).

**Table C.40 Summary - Estimated CD&EW Arising in Sandwell in 2017 (tonnes)**

| CD&EW Waste Arisings - Source of Evidence   | Estimated CD&EW Waste Arisings in 2017<br>(tonnes)<br>Sandwell |
|---|--|
| CD&EW Origin Codeable to Sandwell   | 113,547  |
| CD&EW Origin West Midlands WPA Not Codeable/<br>West Midlands Estimated Apportioned to Sandwell | 76,577   |
| <b>Total</b>  | <b>190,124</b>   |

Source: Environment Agency Waste Data Interrogator (WDI) 2017, NOMIS Business Counts 2017, Enterprises by Industry

The above estimates do not include waste managed under 'exemptions' from permitting, such as CD&EW managed on-site as part of land remediation, engineering or construction projects.

# Appendix D

## Waste Arisings, Management & Capacity Data Tables

**Table D.1 Current Waste Arisings, 2021 (tonnes)**

| Waste source   |                                  | Sandwell  |
|--|----------------------------------|-----------|
| <b>Local Authority Collected Waste (LACW)</b>                        | Household                        | 128,000   |
|  | Non-household                    | 12,802    |
| <b>Commercial &amp; Industrial waste (C&amp;I)</b>                   | Permitted sites                  | 45,243    |
|  | West Midlands (WPA not codeable) | 32,040    |
| <b>Construction, Demolition and Excavation waste (CD&amp;E)</b>      | Permitted sites                  | 200,779   |
|  | West Midlands (WPA not codeable) | 71,838    |
|  | Exempt sites                     | 223,248   |
| <b>Agricultural waste</b>  | Permitted sites                  | 27        |
|  | West Midlands (WPA not codeable) | 4         |
|  | Exempt sites                     | 4,758     |
| <b>Waste managed at exempt sites*</b>                                |                                  | 551,084   |
| <b>Hazardous waste</b>   |                                  | 56,635    |
| <b>Retailer take-back and Producer Compliance Scheme collections</b> | Batteries                        | 76        |
|  | WEEE                             | 36        |
| <b>Total waste arisings**</b>  |                                  | 1,313,767 |

\* excludes exemptions included in CD&E and agricultural waste estimates.

\*\*To avoid double counting the total waste arisings excludes non-household LACW waste which is captured in the C&I total

**Table D.2 Current Waste Management, 2021**

|  | Management method               | LACW**       | C&I waste    | CD&E          | Hazardous*   | Agricultural waste | Total waste arisings |
|--|---------------------------------|--------------|--------------|---------------|--------------|--------------------|----------------------|
| <b>Sandwell</b>                                | Reuse, recycling and composting | 34,944 (27%) | 14,117 (31%) | 10,527 (5%)   | 0 (0%)       | 15 (56%)           | 59,604 (14%)         |
|  | Recovery and treatment          | 79,360 (62%) | 7,743 (17%)  | 16,058 (8%)   | 34,970 (62%) | 0 (0%)             | 138,130 (32%)        |
|  | Transfer                        | 0 (0%)       | 7,832 (17%)  | 17,157 (9%)   | 19,884 (35%) | 12 (43%)           | 44,885 (10%)         |
|  | Disposal                        | 13,696 (11%) | 15,550 (34%) | 157,037 (78%) | 1,782 (3%)   | 0 (0%)             | 188,065 (44%)        |
| <b>West Midlands (apportioned to Sandwell)</b> | Reuse, recycling and composting | -            | 17,383 (54%) | 12,521 (17%)  | -            | 4 (89%)            | 29,908 (29%)         |
|  | Recovery and treatment          | -            | 7,094 (22%)  | 24,197 (34%)  | -            | 0 (2%)             | 31,291 (30%)         |
|  | Transfer                        | -            | 2,632 (8%)   | 15,212 (21%)  | -            | 0 (8%)             | 17,844 (17%)         |
|  | Disposal                        | -            | 4,931 (15%)  | 19,908 (28%)  | -            | 0 (2%)             | 24,839 (24%)         |
| <b>Sandwell total</b>                          | Reuse, recycling and composting | 34,944 (27%) | 31,501 (41%) | 23,048 (8%)   | 0 (0%)       | 19 (61%)           | 89,511 (17%)         |
|  | Recovery and treatment          | 79,360 (62%) | 14,837 (19%) | 40,255 (15%)  | 34,970 (62%) | 0 (0%)             | 169,421 (32%)        |
|  | Transfer                        | 0 (0%)       | 10,464 (14%) | 32,369 (12%)  | 19,884 (35%) | 12 (38%)           | 62,729 (12%)         |
|  | Disposal                        | 13,696 (11%) | 20,481 (27%) | 176,945 (65%) | 1,782 (3%)   | 0 (0%)             | 212,904 (40%)        |

Notes:

Totals may not sum due to rounding.

The table excludes waste managed at exempt sites (approx. 780kt).

Total Local Authority collected waste managed may not match total Local Authority collected waste collected arisings due to stockpiling of waste between reporting periods.

\*LACW and Hazardous 'recovery and treatment' method includes 'other' fate

(\*\*) LACW data is for the 2021/22 monitoring year rather than the 2021 calendar year

(\*\*\*) Recovery and treatment for all areas includes energy recovery/ recovery of waste as 'Refuse Derived Fuel' (RDF).



**Table D.3 Waste Received at Permitted Sites and Incinerators, 2021 (tonnes)**

| Facility type                                   | Sandwell       |
|---|----------------|
| Metal Recycling Sites (MRS)                     | 250,214        |
| Transfer  | 156,583        |
| Treatment                                       |                |
| Recycling                                       | 317,922        |
| Recovery  | 157,696        |
| Incineration (with and without energy recovery) | 15,410         |
| <b>Total</b>                                    | <b>897,825</b> |

**Table D.4 Existing Waste Management Capacity at LACW sites, 2021 (tonnes per annum)**

| Facility type | Site name     | Sandwell                               |        |
|---------------|---------------|--|--------|
| Transfer      | WTS           | Eagle Transfer Hub                     | 64,396 |
|               | HWRC          | Shidas Lane Household Recycling Centre | 5,754  |
|               | Depot and WTS | Taylors Lane Waste Transfer Station    | 1,350  |
| <b>Total</b>  |               | <b>71,500</b>                          |        |

**Table D.5 Landfill Capacity in Sandwell – Void space (cubic meters) and total capacity (tonnes) remaining at permitted sites at end of 2021**

| Site  | Type          | Authority | Estimated Void Space at end 2021 (m <sup>3</sup> ) | Estimated Total Capacity (tonnes) | Permitted End Date |
|---|---------------|-----------|--|-----------------------------------|--------------------|
| <b>Inert Only</b>                                 |               |           |  |                                   |                    |
| No permitted sites                                |               |           |  |                                   |                    |
| <b>Non-Hazardous</b>                              |               |           |  |                                   |                    |
| Edwin Richards                                    | Non-Hazardous | Sandwell  | 5,593,973  | 4,754,877                         | 21.02.42           |
| <b>Total Non-Hazardous Void Space at end 2021</b> |               |           | 5,593,973  | 4,754,877                         |                    |

| Site | Type | Authority | Estimated Void Space at end 2021 (m <sup>3</sup> ) | Estimated Total Capacity (tonnes) | Permitted End Date |
|------|------|-----------|--|-----------------------------------|--------------------|
|------|------|-----------|--|-----------------------------------|--------------------|

### Hazardous

#### No permitted sites

Source: Environment Agency Remaining Landfill Capacity: England, as at end 2021, void space converted to tonnes using the formula recommended in the former PPG10 Companion Guide (0.85 tonne = 1 cubic metre). All figures rounded to the nearest 1,000 tonnes. Totals may not sum due to rounding.

**Table D.6 Specialist Waste Management Capacity, 2021 (tonnes per annum unless otherwise specified)**

| Facility type                        |   | Sandwell |
|--------------------------------------|---|----------|
| <b>Agricultural waste</b>            | Exempt Sites U10, U11, T24 and T25 exemptions                                       | 4,578    |
| <b>Hazardous waste</b>               | Treatment   | 66,012   |
|                                      | Recovery  | 49,402   |
|                                      | Transfer  | 41,973   |
|                                      | Disposal*   | 9        |
|                                      | Other**   | 66       |
| <b>Construction waste exemptions</b> | U1 and U3 exemptions  | 223,248  |
| <b>Disposal (D) exemptions</b>       | D1 to D8 exemptions   | 6,969    |
| <b>Storage (S) exemptions</b>        | S1 to S3 exemptions   | 248,250  |
| <b>Treatment (T) exemptions</b>      | T1 to T33 excluding T24 and T25 (Agricultural and food processing waste exemptions) | 204,204  |
| <b>Use (U) exemptions</b>            | U2, U4 to U9 and U12 to U16 exemptions  | 91,661   |
| <b>Wastewater treatment</b>          | DWF (m <sup>3</sup> /d)***  | 76,032   |
| <b>Wastewater sludge treatment</b>   | Tonnes  | 0        |
| <b>ELV recycling and depollution</b> |   | 27,789   |
| <b>WEEE treatment</b>                |   | 6,878    |

\*Includes landfill and incineration without energy recovery

\*\*Includes 'other' fate and rejected

\*\*\*DWF (M<sup>3</sup>/d) = Daily Water Flow (cubic metres per day)

**Table D.7 Wastewater Treatment Capacity in Sandwell - Load Entering Sandwell Wastewater Treatment Facilities (p.e.), 2012 - 2020**

| Treatment Facility   | Authority | Permitted Maximum DWF (p.e.) <sup>2</sup> | Load Entering, UWWTP (p.e.), 2012 | Load Entering, UWWTP (p.e.), 2014 | Load Entering, UWWTP (p.e.), 2016 | Load Entering, UWWTP (p.e.), 2018 | Load Entering, UWWTP (p.e.), 2020 |
|--|-----------|---|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| <b>Birmingham &amp; Black Country No. 2 (Ray Hall)<sup>3</sup></b> | Sandwell  | 210,000                                   | 102,237                           | 103,538                           | 111,416                           | 122,442                           | 134,767                           |

Source: Waterbase – UWWTD: Urban Waste Water Treatment Directive – reported data Microsoft Access database file> T\_UWWTPS sheet filtered by UKG35 and UKG34, 2014 and 2018,4 European Commission Urban Waste Water Website: United Kingdom - UWWTD Treatment Plants, Treatment map. 2020 data taken from EA Wastewater Treatment in England data (<https://www.data.gov.uk/dataset/d7e2c57b-110a-462b-97a0-9833e7d26cc2/wastewater-treatment-in-england>) as EEA no longer covering UK.

Notes

Notes

1. DWF = Daily Water Flow, p.e. = population equivalent.
2. Permitted Maximum DWF/ Load Entering at Ray Hall (Birmingham & Black Country No.2) is incorrectly referred to as Willenhall (Birmingham & Black Country No.3) in the T\_UWWTPS spreadsheets and on the EC Urban Waste Water website, but is correctly referred to as Ray Hall in the T\_Agglomerations spreadsheet, and it is clear from the interactive map on the EU Urban Waste Water website that the data relates to Ray Hall. The Willenhall facility had closed by 2014.
3. UWWTPS = Urban Waste Water Treatment Plants.
4. Permitted Maximum DWF / Load Entering is expressed by p.e. of the 'agglomeration' the wastewater treatment plant serves. This means the highest biochemical oxygen demand (BOD) load that enters the wastewater treatment plant, including any trade and tourist p.e.
5. Information published by the Environment Agency indicates that the p.e. may be calculated in the following way: the maximum average weekly load entering the treatment plant during the year, where 60g of BOD is equivalent to 1 person per day.

**Table D.8 Sandwell Baseline Waste Capacity Estimate, 2021 (tonnes per annum)**

| Capacity Type   | Sandwell  |
|---|-----------|
| <b>Recycling and Recovery (annual throughput capacity, tonnes per annum)</b>              |           |
| <i>Incinerator</i>  | 10,637    |
| <i>MRS</i>  | 384,330   |
| <i>Treatment - Recycling</i>  | 369,735   |
| <i>Treatment - Recovery</i>   | 157,046   |
| Recycling and Recovery Total  | 921,747   |
| <b>Transfer (annual throughput capacity, tonnes per annum)</b>                            |           |
| <i>Transfer</i>   | 394,269   |
| <b>Landfill (void space in cubic metres (m<sup>3</sup>) and total capacity in tonnes)</b> |           |
| <i>Inert Only – m<sup>3</sup></i>   | 0         |
| <i>Inert Only – tonnes</i>  | 0         |
| <i>Non-Haz – m<sup>3</sup></i>  | 5,593,973 |

| Capacity Type                   | Sandwell  |
|---------------------------------|-----------|
| Non-Haz - tonnes                | 4,754,877 |
| Hazardous – m <sup>3</sup>      | 0         |
| Hazardous – tonnes              | 0         |
| Landfill Total – m <sup>3</sup> | 5,593,973 |
| Landfill Total - tonnes         | 4,754,877 |

All figures rounded to the nearest 1,000 tonnes. Totals may not sum due to rounding. Includes capacity at permitted sites only. \* This is the 5-year average throughput of permitted sites.

**Table D.9 Waste imports to and exports from Sandwell, 2021 (tonnes)**

|                     | Imports to Sandwell sites (inc. waste of Sandwell origin) | Exports to permitted sites in England and Wales (inc. sites in Sandwell) | Sandwell waste arisings received at sites within Sandwell | Net imports    |
|---------------------|---|--|---|----------------|
| Non-hazardous waste | 1,149,844   | 589,026  | 349,676   | 211,142        |
| Hazardous waste     | 195,276   | 18,776   | 4,387   | 172,113        |
| <b>Total</b>        | <b>1,345,120</b>  | <b>607,802</b>   | <b>354,063</b>  | <b>383,256</b> |

Figures rounded to the nearest tonne.

Source: Environment Agency Waste Data Interrogator (WDI), Natural Resource Wales Waste Data Interrogator (WWDI) 2021

**Table D.10 Origin Region/ Country and Waste Management by Site Category of Waste Received in Sandwell, 2021 (tonnes)**

| Origin Region/ Country | Landfill | MRS     | Transfer | Treatment | Total     | %      |
|------------------------|----------|---------|----------|-----------|-----------|--------|
| East Midlands          | 1,532    | 13,173  | 6,174    | 23,056    | 43,935    | 3.27%  |
| East of England        | -        | 8,362   | 3,777    | 23,349    | 35,488    | 2.64%  |
| London                 | -        | 1,330   | 263      | 6,780     | 8,373     | 0.62%  |
| North East             | -        | 8,141   | 129      | 8,066     | 16,336    | 1.21%  |
| North West             | -        | 9,171   | 3,106    | 12,802    | 25,078    | 1.86%  |
| South East             | -        | 6,047   | 1,863    | 22,369    | 30,279    | 2.25%  |
| South West             | 70       | 11,015  | 2,431    | 26,286    | 39,802    | 2.96%  |
| West Midlands          | 445,694  | 171,401 | 134,847  | 345,080   | 1,097,022 | 81.56% |

| Origin Region/<br>Country | Landfill       | MRS            | Transfer       | Treatment      | Total            | %              |
|---------------------------|----------------|----------------|----------------|----------------|------------------|----------------|
| Yorks & Humber            | -              | 13,606         | 1,259          | 13,715         | 28,580           | 2.12%          |
| N Ireland                 | -              | 433            | -              | -              | 433              | 0.03%          |
| Scotland                  | -              | 45             | 114            | 2,739          | 2,898            | 0.22%          |
| Wales                     | -              | 6,951          | 2,620          | 5,604          | 15,175           | 1.13%          |
| Outside UK                | -              | 539            | -              | 1,183          | 1,722            | 0.13%          |
| <b>Total</b>              | <b>447,295</b> | <b>250,214</b> | <b>156,583</b> | <b>491,028</b> | <b>1,345,120</b> | <b>100.00%</b> |

Treatment consists of "Treatment", Processing and "Incineration".

**Table D.11Up Summary of Sandwell Waste Imports/ Exports, 2019 (tonnes) by Site Category – Non-Hazardous and Hazardous Waste**

| Waste imports/exports                            | Incinerator   | Landfill      | MRS           | Transfer      | Treatment     | On/in Land   | Total          |
|--|---------------|---------------|---------------|---------------|---------------|--------------|----------------|
| Imports - Waste Received in the Black Country    | 14,008        | 447,295       | 250,214       | 156,583       | 477,020       | -            | 1,345,120      |
| <b>Imports - % by Site Category</b>              | <b>1.04%</b>  | <b>33.25%</b> | <b>18.60%</b> | <b>11.64%</b> | <b>35.46%</b> | <b>-</b>     | <b>100.00%</b> |
| Exports - Waste Originating in the Black Country | 61,507        | 226,926       | 118,042       | 104,195       | 94,247        | 2,885        | 607,802        |
| <b>Exports - % by Site Category</b>              | <b>10.12%</b> | <b>37.34%</b> | <b>19.42%</b> | <b>17.14%</b> | <b>15.51%</b> | <b>0.47%</b> | <b>100.0%</b>  |

Source: Tables 2.11 – 2.12 (Tables D9, D10 and D12).

**Table D.12 Destination region and waste management by site category of origin waste Sandwell, 2021 (tonnes)**

| Destination     | Landfill | MRS   | Transfer | Treatment | On/in Land | Total  | %     |
|-----------------|----------|-------|----------|-----------|------------|--------|-------|
| East Midlands   | -        | 7,095 | 1        | 18,943    | -          | 26,039 | 4.28% |
| East of England | -        | 169   | 3        | 448       | -          | 620    | 0.10% |
| London          | -        | -     | -        | -         | -          | -      | 0.00% |
| North East      | -        | 16    | -        | 2,295     | -          | 2,311  | 0.38% |
| North West      | 4        | 93    | 312      | 2,005     | -          | 2,509  | 0.41% |
| South East      | -        | 11    | -        | 532       | -          | 557    | 0.09% |

| Destination               | Landfill | MRS     | Transfer | Treatment | On/in Land | Total   | %       |
|---------------------------|----------|---------|----------|-----------|------------|---------|---------|
| <b>South West</b>         | -        | 57,942  | 1        | 15        | -          | 57,957  | 9.54%   |
| <b>Wales</b>              | -        | 1,945   | 52       | 5,882     | -          | 7,880   | 1.30%   |
| <b>West Midlands</b>      | 226,921  | 48,919  | 102,626  | 115,608   | 2,885      | 504,915 | 83.07%  |
| <b>Yorks &amp; Humber</b> | -        | 1,852   | 1,201    | 3,610     | -          | 6,663   | 1.10%   |
| <b>Total</b>              | 226,926  | 118,042 | 104,193  | 155,754   | 2,885      | 607,802 | 100.00% |

Treatment consists of "Treatment", Processing and "Incineration".

**Table D.13 Net imports of waste for management in Sandwell (tonnes), 2017-2021, average inputs, by Site Category**

|  | Recycling      | Recovery       | Transfer       | Disposal      | Total            |
|--|----------------|----------------|----------------|---------------|------------------|
| <b>Imports of waste for management</b>     | 754,065        | 167,683        | 394,269        | 255,963       | 1,571,980        |
| <b>Sandwell waste imports</b>              | 30,987         | 1,898          | 95,074         | 226,095       | 354,054          |
| <b>Net imports of waste for management</b> | <b>723,078</b> | <b>165,785</b> | <b>299,196</b> | <b>29,867</b> | <b>1,217,925</b> |

Based on 5-year average WDI inputs at permitted facilities and incinerators in Sandwell, 2017-2021. Sandwell waste import tonnages are taken from the 2021 WDI.

# Appendix E

## Waste management sites within Sandwell managing more than 10,000 tpa

---

### Explanation of Columns

#### IPPC

Not a field in the WDI, although in some cases Waste Permit references are the same as IPPC references. This field has been populated from the EA Public Register of installations.

#### Accredited Reprocessors - Accreditation Reference/ Classification

Not a field in the WDI as Accredited Reprocessors are not included. This field has been populated using information from the Register of Accredited Reprocessors.

#### Registered Exemptions

Not a field in the WDI, although some permitted sites also have Registered Exemptions. This field has been populated using information from the Waste Exemptions Register.

#### 2021 Estimated Throughput Capacity (tpa)

The figures are estimates of operational throughput at each site in 2021.

### Sources used to identify sites

- Environment Agency Waste Data Interrogator (WDI)
- Environmental Permitting Regulations Database
- Environment Agency Public Register
- Register of Accredited Reprocessors
- Planning permission

**Table E.1 Waste management sites in Sandwell managing more than 10,000 tpa**

| Site Name   | Operator                                      | Waste Permit        | IPPC     | Accredited Reprocessor – Number / Classification | Registered Exemptions       | Easting | Northing | Site Category | Facility Type                      | Permitted Capacity (tpa) | 2021 Throughput Capacity (tonnes) |
|---|---|---------------------|----------|--|-----------------------------|---------|----------|---------------|------------------------------------|--------------------------|-----------------------------------|
| <b>A1 Sandwell Skip Hire</b>                              | Singh Kuldeep                                 | DB3408LE (40170)    |          |  |                             | 401544  | 289370   | Treatment     | Non Haz Waste Transfer / Treatment | 75,000                   | 13,646                            |
| <b>Alutrade Ltd</b>                                       | Alutrade Ltd                                  | HP3198ER (100380)   |          |  | EPR/MF060 1NY/A00 1 (S2 T9) | 399680  | 288701   | MRS           | Car Breaker                        | 50,000                   | 23,779                            |
| <b>Ash Waste Services</b>                                 | Ash Waste Services Limited                    | 405891              |          |  |                             | 397754  | 286563   | Transfer      | Non-Haz Waste Transfer             |                          | 14,957                            |
| <b>Bescot Sidings</b>                                     | Network Rail Infrastructure Limited           | XP3892FN (40078)    |          |  |                             | 401590  | 295474   | Treatment     | Inert Waste Transfer / Treatment   | 250,000                  | 62,797                            |
| <b>Biffa Tipton Waste Transfer Station - EPR/CP3938JU</b> | Biffa Waste Services Limited                  | SP3339EX (CP3938JU) | CP3938JU |  |                             | 397920  | 292930   | Treatment     | Physical Treatment                 | 546,000                  | 68,501                            |
| <b>Bullock Street EPR/ZP3537SL</b>                        | Robert Hopkins Environmental Services Limited | ZP3537SL            |          |  |                             | 400490  | 290030   | Transfer      | Haz Waste Transfer                 | 40,000                   | 34,286                            |



| Site Name  | Operator                                | Waste Permit      | IPPC     | Accredited Reprocessor – Number / Classification | Registered Exemptions                            | Easting | Northing | Site Category | Facility Type               | Permitted Capacity (tpa) | 2021 Throughput Capacity (tonnes) |
|--|---|-------------------|----------|--|--|---------|----------|---------------|-----------------------------|--------------------------|-----------------------------------|
| <b>Cradley Metal Recycling Centre</b>                | Enablelink Limited                      | 403369            |          |  | WEX10266 3 (S2), WEX00631 9 (T9)                 | 396088  | 286933   | MRS           | Metal Recycling             | 999,999                  | 48,863                            |
| <b>Eagle Recovery and Transfer Hub</b>               | Serco Limited                           | WP3992EN (102693) |          |  |  | 398202  | 293539   | Transfer      | Non-Haz Waste Transfer      | 200,000                  | 64,396                            |
| <b>Edwin Richards Landfill Site<br/>EPR/BU0834IP</b> | Waste Recycling Group (Central) Limited | BU0834IP          | BU0834IP |  |  | 396500  | 288200   | Landfill      | Non Hazardous LF            | 550,000                  | 44,730                            |
| <b>ERQ - STC, EPR/HP3632RP/V003</b>                  | Waste Recycling group (Central) Ltd     | HP3632RP          |          |  |  | 396960  | 288570   | Treatment     | Physical-Chemical Treatment |                          | 75,895                            |
| <b>European Metal Recycling Limited - Smethwick</b>  | European Metal Recycling Ltd            | LP3597FX (42634)  |          |  |  | 403117  | 289363   | MRS           | Metal Recycling             | 74,999                   | 10,766                            |
| <b>Giffords Recycling Ltd</b>                        | Giffords Recycling Limited              | EB3702LH (42139)  |          | ER18201710 9 (L, Wood, R3)<br>WEX101555 (S2 T6)  | ER1820171 09 (L, Wood, R3)<br>WEX10155 5 (S2 T6) | 400341  | 290116   | Treatment     | Physical Treatment          | 102,000                  | 19,451                            |

| Site Name  | Operator                                    | Waste Permit      | IPPC     | Accredited Reprocessor – Number / Classification | Registered Exemptions | Easting | Northing | Site Category | Facility Type               | Permitted Capacity (tpa) | 2021 Throughput Capacity (tonnes) |
|--|---|-------------------|----------|--|-----------------------|---------|----------|---------------|-----------------------------|--------------------------|-----------------------------------|
| <b>Grinsells Skip Hire</b>                           | Grinsells Waste Management Limited          | DP3696FJ (42214)  |          |  |                       | 402816  | 289367   | Transfer      | Non-Haz Waste Transfer      | 24,999                   | 21,808                            |
| <b>IES - Oldbury EPR/GP3739VR</b>                    | Innovative Environmental Solutions (UK) Ltd | GP3739VR          |          |  |                       | 398290  | 290880   | Incineration  | Municipal Waste Incinerator |                          | 14,008                            |
| <b>J. And A. Young (Leicester) Ltd</b>               | J And A Young (Leicester) Limited           | MB3931RU (104984) |          |  |                       | 402087  | 289453   | Treatment     | Material Recycling Facility | 100,000                  | 22,031                            |
| <b>Mighty Trading Ltd</b>                            | Mighty Trading Ltd                          | 404984            |          |  |                       | 397330  | 293109   | MRS           | Metal Recycling             |                          | 35,030                            |
| <b>MTB (Midlands) - Cradley Heath - EPR/EP3136MN</b> | MTB (Midlands) Ltd                          | EP3136MN          | EP3136MN |  |                       | 396170  | 285940   | Treatment     | Physical-Chemical Treatment | 48,250                   | 13,797                            |
| <b>Murfitts Industries Limited</b>                   | Murfitts Industries Limited                 | 40114             |          |  |                       | 399477  | 289228   | Treatment     | Physical Treatment          |                          | 19,069                            |

| Site Name  | Operator                        | Waste Permit      | IPPC     | Accredited Reprocessor – Number / Classification | Registered Exemptions                     | Easting | Northing | Site Category | Facility Type                      | Permitted Capacity (tpa) | 2021 Throughput Capacity (tonnes) |
|--|---------------------------------|-------------------|----------|--|---|---------|----------|---------------|------------------------------------|--------------------------|-----------------------------------|
| <b>No 1 Skip Hire Ltd<sup>1</sup></b>              | No 1 Skip Hire Ltd              | 406433            |          |  |   | 399070  | 290987   | Treatment     | Non Haz Waste Transfer / Treatment | 74,999                   | 23,817                            |
| <b>Oldfields Inert Recycling Facility</b>          | S G M 2003 Ltd                  | CB3009KG (401799) |          |  | WEX102701 (T4 U1 T5)                      | 394863  | 285872   | Treatment     | Physical Treatment                 | 74,999                   | 18,045                            |
| <b>Rabone Lane EPR/ZP3032 WF</b>                   | Sims Group UK Limited           | ZP3032WF          | ZP3032WF |  |   | 403260  | 288950   | MRS           | Metal Recycling                    | 449,998                  | 88,553                            |
| <b>Richards &amp; Jerrom Ltd</b>                   | Richards & Jerrom Ltd           | MP3397FL (42641)  |          |  |   | 395230  | 293723   | MRS           | Metal Recycling                    | 75,000                   | 11,840                            |
| <b>Trinity Street Materials Recycling Facility</b> | Biffa Waste Services Limited    | UP3590VW (102500) |          |  | WEX073672 (S2 S1 T9 T10 T12 T5 T6)        | 399362  | 288796   | Treatment     | Material Recycling Facility        | 400,000                  | 46,682                            |
| <b>Union Road</b>                                  | H L Thorne & Co Limited         | CB3902TD (402382) |          |  | EPR/KF0806 ZY/A001 (S2)                   | 398616  | 290624   | MRS           | Metal Recycling                    | 74,999                   | 14,116                            |
| <b>Wednesbury Aggregates Recycling Facility</b>    | Midland Quarry Products Limited | EB3003XH (403141) |          |  | EPR/LE5240 EK/A001 (S2 S3 T1 S1 U1 U9 T5) | 398423  | 293981   | Treatment     | Physical Treatment                 | 149,999                  | 35,388                            |

<sup>1</sup> No 1 Skip hire relocated in 2019 to a site at Bull Lane, West Bromwich near to Bull Lane Works (AB Waste).

| Site Name   | Operator                 | Waste Permit | IPPC     | Accredited Reprocessor – Number / Classification | Registered Exemptions | Easting | Northing | Site Category | Facility Type      | Permitted Capacity (tpa) | 2021 Throughput Capacity (tonnes) |
|---|--------------------------|--------------|----------|--|-----------------------|---------|----------|---------------|--------------------|--------------------------|-----------------------------------|
| <b>Wednesbury WM Resource Centre<br/>EPR/XP3631SE</b> | Biffa Waste Services Ltd | XP3631SE     | XP3631SE |  |                       | 398550  | 294560   | Transfer      | Haz Waste Transfer | 407,600                  | 43,043                            |

# Appendix F

## Trends in Arisings 2017 - 2021

**Table F.1 LACW Arisings**

| Authority       | 2017      |               |                | 2018      |               |                | 2019      |               |                | 2020      |               |                | 2021      |               |                |
|-----------------|-----------|---------------|----------------|-----------|---------------|----------------|-----------|---------------|----------------|-----------|---------------|----------------|-----------|---------------|----------------|
|                 | Household | Non-household | Total          | Household | Non-household | Total          | Household | Non-household | Total          | Household | Non-household | Total          | Household | Non-household | Total          |
| <b>Sandwell</b> | 128,526   | 12,992        | <b>141,518</b> | 129,019   | 12,729        | <b>141,748</b> | 128,278   | 13,885        | <b>142,163</b> | 125,714   | 11,038        | <b>136,752</b> | 128,000   | 12,802        | <b>140,802</b> |

Source: Local Authority Collected Waste Statistics (LA regional spreadsheet for each respective year)

**Table F.2 C&I Arisings**

| Authority       | 2017          |               |               | 2018          |               |               | 2019          |               |               | 2020          |               |               | 2021          |               |               |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                 | C&I           | C&I WMNC      | Total         | C&I           | C&I WMNC      | Total         | C&I           | C&I WMNC      | Total         | C&I           | C&I WMNC      | Total         | C&I           | C&I WMNC      | Total         |
| <b>Sandwell</b> | <b>20,472</b> | <b>28,166</b> | <b>48,637</b> | <b>23,725</b> | <b>22,136</b> | <b>45,862</b> | <b>43,829</b> | <b>29,856</b> | <b>73,684</b> | <b>37,917</b> | <b>25,856</b> | <b>63,773</b> | <b>45,243</b> | <b>32,040</b> | <b>77,282</b> |

Source: 2017, 2018, 2019, 2020 and 2021 WDI and 2017, 2018, 2019, 2020 and 2021 Nomis business counts.

WMNC = West Midlands Non Codeable – Waste originating from the West Midlands with no given authority has been apportioned to Sandwell based on NOMIS business counts

**Table F.3 CD&EW Arisings**

| Authority       | 2017    |            |                | 2018    |            |                | 2019   |            |                | 2020   |            |                | 2021    |            |                |
|-----------------|---------|------------|----------------|---------|------------|----------------|--------|------------|----------------|--------|------------|----------------|---------|------------|----------------|
|                 | CD&EW   | CD&EW WMNC | Total          | CD&EW   | CD&EW WMNC | Total          | CD&EW  | CD&EW WMNC | Total          | CD&EW  | CD&EW WMNC | Total          | CD&EW   | CD&EW WMNC | Total          |
| <b>Sandwell</b> | 113,547 | 76,577     | <b>190,124</b> | 142,674 | 82,651     | <b>225,326</b> | 81,869 | 74,389     | <b>156,257</b> | 75,981 | 66,724     | <b>142,705</b> | 200,779 | 71,838     | <b>272,617</b> |

Source: 2017, 2018, 2019, 2020 and 2021 WDI and 2017, 2018, 2019, 2020 and 2021 Nomis business counts.

WMNC = West Midlands Non Codeable – Waste originating from the West Midlands with no given authority has been apportioned to Sandwell based on NOMIS business counts

**Table F.4 Hazardous Waste**

| Authority       | 2017   | 2018   | 2019   | 2020   | 2021   |
|-----------------|--------|--------|--------|--------|--------|
| <b>Sandwell</b> | 44,212 | 48,188 | 52,449 | 48,390 | 56,635 |

Source: 2017, 2018, 2019, 2020 and 2021 Hazardous Waste Data Interrogator

**Table F.5 Agricultural Waste**

| Authority       | 2017         |                   |              | 2018         |                   |               | 2019         |                   |              | 2020         |                   |            | 2021         |                   |           |
|-----------------|--------------|-------------------|--------------|--------------|-------------------|---------------|--------------|-------------------|--------------|--------------|-------------------|------------|--------------|-------------------|-----------|
|                 | Agricultural | Agricultural WMNC | Total        | Agricultural | Agricultural WMNC | Total         | Agricultural | Agricultural WMNC | Total        | Agricultural | Agricultural WMNC | Total      | Agricultural | Agricultural WMNC | Total     |
| <b>Sandwell</b> | 7,314        | 14                | <b>7,328</b> | 12,075       | 12                | <b>12,088</b> | 1,123        | 1                 | <b>1,124</b> | 183          | 2                 | <b>185</b> | 27           | 4                 | <b>31</b> |

Source: 2017, 2018, 2019, 2020 and 2021 WDI and 2017, 2018, 2019, 2020 and 2021 Nomis business counts.

# Appendix G

## Waste Imported and Exported 2019 - 2021 (tonnes) by Basic Waste Category and Region/Country

---

Notes on tables in this Appendix:

All figures in the tables have been rounded to the nearest tonne.

1. The Environment Agency 'Basic Waste Categories' are as follows: Hazardous (self-explanatory), Hhold/ Ind/ Com (= household waste and commercial and industrial (C&I) waste) and Inert/ C&D waste (= inert construction and demolition waste).
2. The total figures for each year by Site Category and Basic Waste Category may be slightly different due to rounding.

## Imports

### Origin Region/Country, Management and Type of Waste Received in Sandwell 2019 – 2021

**Table G.1 Waste Received at permitted sites in Sandwell in 2021 by origin region and basic waste category (tonnes).**

| Origin Region    | Basic Waste Category |               |           | Sandwell Total | % Total Waste Received |
|------------------|----------------------|---------------|-----------|----------------|------------------------|
|                  | Hazardous            | Hhold/Ind/Com | Inert/C+D |                |                        |
| East Midlands    | 19,363               | 21,150        | 3,781     | 44,294         | 3.29%                  |
| East of England  | 11,116               | 23,583        | 869       | 35,568         | 2.64%                  |
| London           | 4,768                | 2,997         | 608       | 8,373          | 0.62%                  |
| North East       | 6,922                | 8,512         | 902       | 16,336         | 1.21%                  |
| North West       | 8,534                | 15,100        | 1,446     | 25,081         | 1.86%                  |
| South East       | 16,972               | 12,576        | 747       | 30,296         | 2.25%                  |
| South West       | 22,330               | 16,318        | 1,181     | 39,829         | 2.95%                  |
| West Midlands    | 79,744               | 470,808       | 549,147   | 1,099,699      | 81.56%                 |
| Yorks & Humber   | 22,584               | 4,929         | 1,068     | 28,580         | 2.12%                  |
| Northern Ireland | -                    | 46            | 387       | 433            | 0.03%                  |
| Scotland         | 174                  | 2,712         | 12        | 2,898          | 0.21%                  |



| Origin Region | Basic Waste Category |                |                | Sandwell Total   | % Total Waste Received |
|---------------|----------------------|----------------|----------------|------------------|------------------------|
|               | Hazardous            | Hhold/Ind/Com  | Inert/C+D      |                  |                        |
| Wales         | 5,927                | 7,686          | 1,563          | 15,176           | 1.13%                  |
| Outside UK    | 6                    | 1,393          | 323            | 1,722            | 0.13%                  |
| <b>TOTAL</b>  | <b>198,440</b>       | <b>587,811</b> | <b>562,033</b> | <b>1,348,284</b> | <b>100%</b>            |

Source: Environment Agency Waste Data Interrogator (WDI) 2021

**Table G.2 Waste Received at permitted sites in Sandwell in 2020 by origin region and basic waste category (tonnes).**

| Origin Region   | Basic Waste Category |               |           | Sandwell Total | % Total Waste Received |
|-----------------|----------------------|---------------|-----------|----------------|------------------------|
|                 | Hazardous            | Hhold/Ind/Com | Inert/C+D |                |                        |
| East Midlands   | 12,401               | 15,673        | 2,851     | 30,925         | 2.53%                  |
| East of England | 10,996               | 16,305        | 1,311     | 28,612         | 2.34%                  |
| London          | 14,833               | 4,194         | 413       | 19,440         | 1.59%                  |
| North East      | 6,491                | 7,090         | 464       | 14,045         | 1.15%                  |
| North West      | 9,323                | 15,035        | 2,930     | 27,289         | 2.23%                  |
| South East      | 11,653               | 12,402        | 395       | 24,450         | 2.00%                  |
| South West      | 20,268               | 32,093        | 1,337     | 53,698         | 4.39%                  |
| West Midlands   | 69,565               | 574,986       | 342,097   | 986,649        | 80.69%                 |

| Origin Region    | Basic Waste Category |                |                | Sandwell Total   | % Total Waste Received |
|------------------|----------------------|----------------|----------------|------------------|------------------------|
|                  | Hazardous            | Hhold/Ind/Com  | Inert/C+D      |                  |                        |
| Yorks & Humber   | 8,799                | 6,196          | 1,053          | 16,048           | 1.31%                  |
| Northern Ireland | -                    | 35             | 970            | 1,005            | 0.08%                  |
| Scotland         | 5,455                | 1,503          | -              | 6,958            | 0.57%                  |
| Wales            | 3,011                | 8,133          | 1,594          | 12,738           | 1.04%                  |
| Outside UK       | 1                    | 914            | 32             | 946              | 0.08%                  |
| <b>TOTAL</b>     | <b>172,795</b>       | <b>694,560</b> | <b>355,448</b> | <b>1,222,803</b> | <b>100%</b>            |

Source: Environment Agency Waste Data Interrogator (WDI) 2020

**Table G.3 Waste Received at permitted sites in Sandwell in 2019 by origin region and basic waste category (tonnes).**

| Origin Region   | Basic Waste Category |               |           | Sandwell Total | % Total Waste Received |
|-----------------|----------------------|---------------|-----------|----------------|------------------------|
|                 | Hazardous            | Hhold/Ind/Com | Inert/C+D |                |                        |
| East Midlands   | 20,753               | 35,999        | 1,355     | 58,107         | 3.81%                  |
| East of England | 21,871               | 21,911        | 3,267     | 47,050         | 3.09%                  |
| London          | 14,344               | 10,705        | 215       | 25,263         | 1.66%                  |
| North East      | 3,226                | 9,676         | 429       | 13,330         | 0.87%                  |
| North West      | 10,213               | 35,231        | 2,569     | 48,013         | 3.15%                  |

| Origin Region    | Basic Waste Category |                  |                | Sandwell Total   | % Total Waste Received |
|------------------|----------------------|------------------|----------------|------------------|------------------------|
|                  | Hazardous            | Hhold/Ind/Com    | Inert/C+D      |                  |                        |
| South East       | 7,305                | 28,641           | 345            | 36,291           | 2.38%                  |
| South West       | 13,535               | 72,313           | 1,578          | 87,425           | 5.74%                  |
| West Midlands    | 63,156               | 779,903          | 291,012        | 1,134,072        | 74.40%                 |
| Yorks & Humber   | 6,174                | 19,351           | 504            | 26,029           | 1.71%                  |
| Northern Ireland | 10                   | -                | 659            | 668              | 0.04%                  |
| Scotland         | 140                  | 1,113            | -              | 1,253            | 0.08%                  |
| Wales            | 4,088                | 37,353           | 2,716          | 44,156           | 2.90%                  |
| Outside UK       | 141                  | 2,497            | 19             | 2,656            | 0.17%                  |
| <b>TOTAL</b>     | <b>164,955</b>       | <b>1,054,691</b> | <b>304,667</b> | <b>1,524,313</b> | <b>100.00%</b>         |

Source: Environment Agency Waste Data Interrogator (WDI) 2019

## Origin WPA of Waste Originating in the West Midlands Received in Sandwell 2019 – 2021

Table G.4 Waste from the West Midlands Received in Sandwell by Origin WPA, 2021 (tonnes)

| Origin WPA       | Waste Imported by Basic Waste Category (tonnes) |                 |                | Total Waste Received from West Midlands - Tonnes | Total Waste Received from West Midlands - % |
|------------------|---|-----------------|----------------|--|---|
|                  | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D     |  |   |
| Birmingham       | 19,280  | 5,224           | 145,376        | 169,880  | 15.45%                                      |
| Coventry         | 3,048   | 4,267           | 1              | 7,316  | 0.67%                                       |
| Solihull         | 3,254   | 2,358           | 104            | 5,716  | 0.52%                                       |
| Dudley           | 5,703   | 7,206           | 67,940         | 80,849   | 7.35%                                       |
| <b>Sandwell</b>  | <b>4,387</b>                                    | <b>171,210</b>  | <b>178,466</b> | <b>354,063</b>                                   | <b>32.20%</b>                               |
| Walsall          | 2,799   | 3,063           | 63,078         | 68,941   | 6.27%                                       |
| Wolverhampton    | 3,197   | 1,571           | 14,553         | 19,321   | 1.76%                                       |
| Herefordshire    | 252   | 37              | 3              | 292  | 0.03%                                       |
| Shropshire       | 2,655   | 3,641           | 1,124          | 7,421  | 0.67%                                       |
| Telford & Wrekin | 2,386   | 26,330          | -              | 28,716   | 2.61%                                       |
| Staffordshire    | 4,092   | 6,388           | 522            | 11,003   | 1.00%                                       |
| Stoke-on-Trent   | 1,444   | 1,594           | -              | 3,039  | 0.28%                                       |
| Warwickshire     | 5,208   | 3,135           | 237            | 8,581  | 0.78%                                       |
| Worcestershire   | 3,438   | 6,387           | 291            | 10,116   | 0.92%                                       |

| Origin WPA                                   | Waste Imported by Basic Waste Category (tonnes) |                 |                | Total Waste Received from West Midlands - Tonnes | Total Waste Received from West Midlands - % |
|--|---|-----------------|----------------|--|---|
|  | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D     |  |   |
| <b>West Midlands WPA Not Codeable/ Est'd</b> | 18,599  | 228,395         | 77,451         | 324,446  | 29.50%                                      |
| <b>TOTAL</b>                                 | <b>79,744</b>                                   | <b>470,808</b>  | <b>549,147</b> | <b>1,099,699</b>                                 | <b>100.00%</b>                              |
| <b>WMCA Area</b>                             | <b>41,668</b>                                   | <b>194,899</b>  | <b>469,518</b> | <b>706,085</b>                                   | <b>64.21%</b>                               |

Source: Environment Agency Waste Data Interrogator (WDI) 2021

**Table G.5 Waste from the West Midlands Received in Sandwell by Origin WPA, 2020 (tonnes)**

| Origin WPA           | Waste Imported by Basic Waste Category (tonnes) |                 |               | Total Waste Received from West Midlands - Tonnes | Total Waste Received from West Midlands - % |
|----------------------|---|-----------------|---------------|--|---|
|                      | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D    |  |   |
| <b>Birmingham</b>    | 9,241   | 11,698          | 73,039        | <b>93,978</b>                                    | 9.52%                                       |
| <b>Coventry</b>      | 1,644   | 1,950           | 0             | <b>3,594</b>                                     | 0.36%                                       |
| <b>Solihull</b>      | 3,746   | 597             | 523           | <b>4,865</b>                                     | 0.49%                                       |
| <b>Dudley</b>        | 1,134   | 18,016          | 46,196        | <b>65,346</b>                                    | 6.62%                                       |
| <b>Sandwell</b>      | <b>6,635</b>                                    | <b>236,602</b>  | <b>53,820</b> | <b>297,057</b>                                   | <b>30.11%</b>                               |
| <b>Walsall</b>       | 2,661   | 9,061           | 76,867        | <b>88,589</b>                                    | 8.98%                                       |
| <b>Wolverhampton</b> | 2,248   | 7,172           | 9,298         | <b>18,718</b>                                    | 1.90%                                       |
| <b>Herefordshire</b> | 247   | 56              | -             | <b>303</b>                                       | 0.03%                                       |

| Origin WPA                                   | Waste Imported by Basic Waste Category (tonnes) |                 |                | Total Waste Received from West Midlands - Tonnes | Total Waste Received from West Midlands - % |
|--|---|-----------------|----------------|--|---|
|  | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D     |  |   |
| <b>Shropshire</b>                            | 3,045   | 10,083          | 13,035         | <b>26,162</b>                                    | 2.65%                                       |
| <b>Telford &amp; Wrekin</b>                  | 2,089   | 15,373          | 20             | <b>17,482</b>                                    | 1.77%                                       |
| <b>Staffordshire</b>                         | 5,317   | 10,873          | 304            | <b>16,494</b>                                    | 1.67%                                       |
| <b>Stoke-on-Trent</b>                        | 922   | 1,666           | -              | <b>2,588</b>                                     | 0.26%                                       |
| <b>Warwickshire</b>                          | 6,168   | 5,716           | 224            | <b>12,108</b>                                    | 1.23%                                       |
| <b>Worcestershire</b>                        | 3,099   | 7,094           | 1,470          | <b>11,664</b>                                    | 1.18%                                       |
| <b>West Midlands WPA Not Codeable/ Est'd</b> | 21,370  | 239,028         | 67,303         | <b>327,700</b>                                   | 33.21%                                      |
| <b>TOTAL</b>                                 | <b>69,565</b>                                   | <b>574,986</b>  | <b>342,097</b> | <b>986,649</b>                                   | <b>100.00%</b>                              |
| <b>WMCA Area</b>                             | <b>27,309</b>                                   | <b>285,096</b>  | <b>259,743</b> | <b>572,148</b>                                   | <b>57.99%</b>                               |

Source: Environment Agency Waste Data Interrogator (WDI) 2020

**Table G.6 Waste from the West Midlands Received in Sandwell by Origin WPA, 2019 (tonnes)**

| Origin WPA        | Waste Imported by Basic Waste Category (tonnes) |                 |            | Total Waste Received from West Midlands - Tonnes | Total Waste Received from West Midlands - % |
|-------------------|---|-----------------|------------|--|---|
|                   | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D |  |   |
| <b>Birmingham</b> | 4,835   | 29,276          | 33,589     | <b>67,701</b>                                    | 5.97%                                       |
| <b>Coventry</b>   | 1,981   | 3,715           | 289        | <b>5,985</b>                                     | 0.53%                                       |

| Origin WPA                                   | Waste Imported by Basic Waste Category (tonnes) |                 |                | Total Waste Received from West Midlands - Tonnes | Total Waste Received from West Midlands - % |
|--|---|-----------------|----------------|--|---|
|  | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D     |  |   |
| Solihull                                     | 904   | 1,340           | 2,713          | 4,958  | 0.44%                                       |
| Dudley                                       | 676   | 24,618          | 20,837         | 46,131   | 4.07%                                       |
| <b>Sandwell</b>                              | <b>3,615</b>                                    | <b>262,217</b>  | <b>44,751</b>  | <b>310,583</b>                                   | <b>27.39%</b>                               |
| Walsall                                      | 1,982   | 18,430          | 2,551          | 22,964   | 2.02%                                       |
| Wolverhampton                                | 1,915   | 12,861          | 695            | 15,472   | 1.36%                                       |
| Herefordshire                                | 496   | 684             | -              | 1,180  | 0.10%                                       |
| Shropshire                                   | 3,231   | 19,118          | 81             | 22,430   | 1.98%                                       |
| Telford & Wrekin                             | 2,431   | 34,585          | 1              | 37,017   | 3.26%                                       |
| Staffordshire                                | 8,753   | 17,117          | 451            | 26,321   | 2.32%                                       |
| Stoke-on-Trent                               | 1,613   | 3,017           | -              | 4,630  | 0.41%                                       |
| Warwickshire                                 | 6,772   | 34,814          | 276            | 41,862   | 3.69%                                       |
| Worcestershire                               | 8,010   | 10,560          | 1,143          | 19,713   | 1.74%                                       |
| <b>West Midlands WPA Not Codeable/ Est'd</b> | <b>15,942</b>                                   | <b>307,550</b>  | <b>183,635</b> | <b>507,127</b>                                   | <b>44.72%</b>                               |
| <b>TOTAL</b>                                 | <b>63,156</b>                                   | <b>779,903</b>  | <b>291,012</b> | <b>1,134,072</b>                                 | <b>100.00%</b>                              |
| <b>WMCA Area</b>                             | <b>15,910</b>                                   | <b>352,458</b>  | <b>105,425</b> | <b>473,793</b>                                   | <b>41.78%</b>                               |

Source: Environment Agency Waste Data Interrogator (WDI) 2019

## Exports

### Destination Region / Country and Management of Waste Originating in Sandwell 2019 – 2021

**Table G.7 Waste Received at permitted sites in England and Wales in 2021 (tonnes) – origin Sandwell by destination region and basic waste category**

| Destination Region | Basic Waste Category |               |           | Origin Sandwell - Destination Total | Origin Sandwell - Destination % |
|--------------------|----------------------|---------------|-----------|-------------------------------------|---------------------------------|
|                    | Hazardous            | Hhold/Ind/Com | Inert/C+D |                                     |                                 |
| East Midlands      | 4,148                | 19,414        | 2,477     | 26,039                              | 4.27%                           |
| East of England    | 2                    | 580           | 38        | 620                                 | 0.10%                           |
| London             | -                    | -             | -         | -                                   | 0.00%                           |
| North East         | 2,237                | 74            | -         | 2,311                               | 0.38%                           |
| North West         | 2,248                | 257           | 5         | 2,509                               | 0.41%                           |
| South East         | 270                  | 286           | 1         | 557                                 | 0.09%                           |
| South West         | 11                   | 57,947        | -         | 57,957                              | 9.51%                           |
| Wales              | 615                  | 7,249         | 16        | 7,880                               | 1.29%                           |
| West Midlands      | 9,926                | 297,114       | 197,875   | 504,915                             | 82.85%                          |
| Yorks & Humber     | 954                  | 4,968         | 741       | 6,663                               | 1.09%                           |



| Destination Region | Basic Waste Category |                |                | Origin Sandwell - Destination Total | Origin Sandwell - Destination % |
|--------------------|----------------------|----------------|----------------|-------------------------------------|---------------------------------|
|                    | Hazardous            | Hhold/Ind/Com  | Inert/C+D      |                                     |                                 |
| <b>TOTAL</b>       | <b>20,409</b>        | <b>387,889</b> | <b>201,152</b> | <b>609,451</b>                      | <b>100.00%</b>                  |

Source: Environment Agency Waste Data Interrogator (WDI) 2021 and Natural Resources Wales, Welsh Waste Data Interrogator (WWDI) 2021

**Table G.8 Waste Received at permitted sites in England and Wales in 2020 (tonnes) – origin Sandwell by destination region and basic waste category**

| Destination Region     | Basic Waste Category |               |           | Origin Sandwell - Destination Total | Origin Sandwell - Destination % |
|------------------------|----------------------|---------------|-----------|-------------------------------------|---------------------------------|
|                        | Hazardous            | Hhold/Ind/Com | Inert/C+D |                                     |                                 |
| <b>East Midlands</b>   | 3,748                | 20,972        | 1,651     | 26,370                              | 4.67%                           |
| <b>East of England</b> | 0                    | 136           | 10        | 147                                 | 0.03%                           |
| <b>London</b>          | -                    | -             | -         | -                                   | 0.00%                           |
| <b>North East</b>      | 2,433                | 119           | -         | 2,552                               | 0.45%                           |
| <b>North West</b>      | 1,850                | 3,149         | 0         | 4,999                               | 0.89%                           |
| <b>South East</b>      | 1                    | 268           | -         | 269                                 | 0.05%                           |
| <b>South West</b>      | 6                    | 46,937        | -         | 46,943                              | 8.31%                           |
| <b>Wales</b>           | 104                  | 4,699         | 23        | 4,826                               | 0.85%                           |
| <b>West Midlands</b>   | 9,868                | 371,199       | 75,673    | 456,740                             | 80.87%                          |

| Destination Region | Basic Waste Category |                |               | Origin Sandwell - Destination Total | Origin Sandwell - Destination % |
|--------------------|----------------------|----------------|---------------|-------------------------------------|---------------------------------|
|                    | Hazardous            | Hhold/Ind/Com  | Inert/C+D     |                                     |                                 |
| Yorks & Humber     | 602                  | 21,250         | 81            | 21,933                              | 3.88%                           |
| <b>TOTAL</b>       | <b>18,613</b>        | <b>468,727</b> | <b>77,438</b> | <b>564,779</b>                      | <b>100.00%</b>                  |

Source: Environment Agency Waste Data Interrogator (WDI) 2020 and Natural Resources Wales, Welsh Waste Data Interrogator (WWDI) 2020

**Table G.9 Waste Received at permitted sites in England and Wales in 2019 (tonnes) – origin Sandwell by destination region and basic waste category**

| Destination Region | Basic Waste Category |               |           | Origin Sandwell - Destination Total | Origin Sandwell - Destination % |
|--------------------|----------------------|---------------|-----------|-------------------------------------|---------------------------------|
|                    | Hazardous            | Hhold/Ind/Com | Inert/C+D |                                     |                                 |
| East Midlands      | 748                  | 3,789         | 2,557     | 7,093                               | 1.24%                           |
| East of England    | 18                   | 508           | -         | 526                                 | 0.09%                           |
| London             | -                    | 3             | -         | 3                                   | 0.00%                           |
| North East         | 2,089                | 188           | -         | 2,277                               | 0.40%                           |
| North West         | 1,194                | 5,088         | 1         | 6,283                               | 1.10%                           |
| South East         | 336                  | 280           | -         | 615                                 | 0.11%                           |
| South West         | 0                    | 13,250        | -         | 13,250                              | 2.32%                           |
| Wales              | 175                  | 5,676         | 99        | 5,949                               | 1.04%                           |

| Destination Region | Basic Waste Category |                |               | Origin Sandwell - Destination Total | Origin Sandwell - Destination % |
|--------------------|----------------------|----------------|---------------|-------------------------------------|---------------------------------|
|                    | Hazardous            | Hhold/Ind/Com  | Inert/C+D     |                                     |                                 |
| West Midlands      | 6,039                | 405,755        | 84,525        | 496,319                             | 87.05%                          |
| Yorks & Humber     | 571                  | 37,215         | 40            | 37,826                              | 6.63%                           |
| <b>TOTAL</b>       | <b>11,171</b>        | <b>471,750</b> | <b>87,222</b> | <b>570,142</b>                      | <b>100.00%</b>                  |

Source: Environment Agency Waste Data Interrogator (WDI) 2019 and Natural Resources Wales, Welsh Waste Data Interrogator (WWDI) 2019

## Destination WPA of Waste Originating in Sandwell Exported within the West Midlands 2019 – 2021

**Table G.10 Waste Originating in Sandwell Exported to the West Midlands by Destination WPA, 2021 (tonnes)**

| Destination WPA | Waste Exported by Basic Waste Category (tonnes) |                 |                | Total Waste Received in West Midlands Origin Codeable Sandwell - Tonnes | Total Waste Received in West Midlands Origin Codeable Sandwell - % |
|-----------------|---|-----------------|----------------|---|--|
|                 | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D     |   |  |
| Birmingham      | 79  | 9,214           | 1,929          | 11,222  | 2.22%  |
| Coventry        | -   | 1               | -              | 1   | 0.00%  |
| Solihull        | -   | 8,334           | 478            | 8,812   | 1.75%  |
| Dudley          | 422   | 9,778           | 307            | 10,506  | 2.08%  |
| <b>Sandwell</b> | <b>4,387</b>                                    | <b>171,210</b>  | <b>178,466</b> | <b>354,063</b>  | <b>70.12%</b>  |
| Walsall         | 1,598   | 3,713           | 4,744          | 10,055  | 1.99%  |
| Wolverhampton   | 187   | 2,334           | -              | 2,521   | 0.50%  |

| Destination WPA  | Waste Exported by Basic Waste Category (tonnes) |                 |                | Total Waste Received in West Midlands Origin Codeable Sandwell - Tonnes | Total Waste Received in West Midlands Origin Codeable Sandwell - % |
|------------------|---|-----------------|----------------|---|--|
|                  | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D     |   |  |
| Herefordshire    | 70  | 55              | 0              | 125   | 0.02%  |
| Shropshire       | -   | -               | -              | -   | 0.00%  |
| Telford & Wrekin | 123   | 12,096          | -              | 12,219  | 2.42%  |
| Staffordshire    | 27  | 58,281          | 4,743          | 63,051  | 12.49%   |
| Stoke-on-Trent   | -   | -               | -              | -   | 0.00%  |
| Warwickshire     | 295   | 17,178          | 7,186          | 24,658  | 4.88%  |
| Worcestershire   | 2,738   | 4,922           | 22             | 7,682   | 1.52%  |
| <b>TOTAL</b>     | <b>9,926</b>                                    | <b>297,114</b>  | <b>197,875</b> | <b>504,915</b>  | <b>100.00%</b>   |
| <b>WMCA Area</b> | <b>6,673</b>                                    | <b>204,583</b>  | <b>185,924</b> | <b>397,180</b>  | <b>78.66%</b>  |

Source: Environment Agency Waste Data Interrogator (WDI) 2021

**Table G.11 Waste Originating in Sandwell Exported to the West Midlands by Destination WPA, 2020 (tonnes)**

| Destination WPA | Waste Exported by Basic Waste Category (tonnes) |                 |            | Total Waste Received in West Midlands Origin Codeable Sandwell - Tonnes | Total Waste Received in West Midlands Origin Codeable Sandwell - % |
|-----------------|---|-----------------|------------|---|--|
|                 | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D |   |  |
| Birmingham      | 143   | 8,697           | 1,736      | 10,576  | 2.32%  |
| Coventry        | -   | -               | -          | -   | 0.00%  |
| Solihull        | -   | 8,082           | 3          | 8,086   | 1.77%  |

| Destination WPA  | Waste Exported by Basic Waste Category (tonnes) |                 |               | Total Waste Received<br>in West Midlands<br>Origin Codeable<br>Sandwell - Tonnes | Total Waste Received<br>in West Midlands<br>Origin Codeable<br>Sandwell - % |
|------------------|---|-----------------|---------------|--|---|
|                  | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D    |  |   |
| Dudley           | 393   | 7,691           | 4,302         | 12,386   | 2.71%   |
| <b>Sandwell</b>  | <b>6,635</b>                                    | <b>236,602</b>  | <b>53,820</b> | <b>297,057</b>   | <b>65.04%</b>   |
| Walsall          | 1,773   | 3,746           | 3,409         | 8,927  | 1.95%   |
| Wolverhampton    | 183   | 1,237           | -             | 1,419  | 0.31%   |
| Herefordshire    | -   | 78              | 2             | 80   | 0.02%   |
| Shropshire       | 1   | 2               | -             | 3  | 0.00%   |
| Telford & Wrekin | 66  | 11,081          | -             | 11,147   | 2.44%   |
| Staffordshire    | 30  | 57,125          | 4,984         | 62,139   | 13.60%  |
| Stoke-on-Trent   | -   | -               | -             | -  | 0.00%   |
| Warwickshire     | 304   | 30,837          | 7,376         | 38,517   | 8.43%   |
| Worcestershire   | 341   | 6,022           | 41            | 6,404  | 1.40%   |
| <b>TOTAL</b>     | <b>9,868</b>                                    | <b>371,199</b>  | <b>75,673</b> | <b>456,740</b>   | <b>100.00%</b>  |
| <b>WMCA Area</b> | <b>9,126</b>                                    | <b>266,055</b>  | <b>63,270</b> | <b>338,451</b>   | <b>74.10%</b>   |

Source: Environment Agency Waste Data Interrogator (WDI) 2020

**Table G.12 Waste Originating in Sandwell Exported to the West Midlands by Destination WPA, 2019 (tonnes)**

| Destination WPA  | Waste Exported by Basic Waste Category (tonnes) |                 |               | Total Waste Received in West Midlands Origin Codeable Sandwell - Tonnes | Total Waste Received in West Midlands Origin Codeable Sandwell - % |
|------------------|---|-----------------|---------------|---|--|
|                  | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D    |   |  |
| Birmingham       | 93  | 14,178          | 4,209         | 18,480  | 3.72%  |
| Coventry         | -   | 375             | -             | 375   | 0.08%  |
| Solihull         | -   | 10,301          | 16            | 10,317  | 2.08%  |
| Dudley           | 500   | 8,018           | 5,346         | 13,864  | 2.79%  |
| <b>Sandwell</b>  | <b>3,615</b>                                    | <b>262,217</b>  | <b>44,751</b> | <b>310,583</b>  | <b>62.58%</b>  |
| Walsall          | 796   | 1,536           | 2,435         | 4,767   | 0.96%  |
| Wolverhampton    | 169   | 1,597           | -             | 1,766   | 0.36%  |
| Herefordshire    | -   | 643             | 43            | 687   | 0.14%  |
| Shropshire       | -   | -               | -             | -   | 0.00%  |
| Telford & Wrekin | 106   | 13,283          | -             | 13,389  | 2.70%  |
| Staffordshire    | 16  | 53,301          | 10,384        | 63,700  | 12.83%   |
| Stoke-on-Trent   | -   | -               | -             | -   | 0.00%  |
| Warwickshire     | 321   | 17,583          | 16,704        | 34,608  | 6.97%  |
| Worcestershire   | 424   | 22,721          | 638           | 23,784  | 4.79%  |
| <b>TOTAL</b>     | <b>6,039</b>                                    | <b>405,755</b>  | <b>84,525</b> | <b>496,319</b>  | <b>100.00%</b>   |
| <b>WMCA Area</b> | <b>5,173</b>                                    | <b>298,223</b>  | <b>56,757</b> | <b>360,152</b>  | <b>72.56%</b>  |

Source: Environment Agency Waste Data Interrogator (WDI) 2019

Notes on tables G10-12:

1. The figures in these tables relate to waste coded as Origin Sandwell only. However, the origin of waste is not always specified in the returns to the Environment Agency and this is not a requirement for waste permits. Consequently, around 5 million tonnes of the waste received at permitted sites in England in 2021 and 2020 and 5.5 million tonnes of the waste received in 2019 was recorded in the WDI as 'West Midlands WPA Not Codeable' or 'West Midlands Estimated'. Some of this will have almost certainly have arisen in Sandwell but we have no way of knowing how much or how and where it was managed.
2. The West Midlands sites outside Sandwell that received the largest tonnages of Sandwell waste during 2019 - 2021 were:
  - Staffordshire Energy Recovery Facility received nearly 58,000 tonnes of Hhold/Ind/Com waste in 2021, more than 56,000 tonnes in 2020 and nearly 53,000 tonnes in 2019.
  - Hollybush Farm and Lodgewood Farm (both part of Jack Moody Recycling) in Staffordshire and Shropshire respectively, received nearly 14,000 tonnes of Hhold/ Ind/ Com and Inert/ C&D waste in 2021, more than 13,000 tonnes in 2020, and nearly 18,000 tonnes in 2019.
  - Ettingdon MRF (Pure Recycling) in Warwickshire, which received around 13,500 tonnes of Hhold/ Ind/ Com waste from Sandwell in 2021, more than 26,500 tonnes in 2020 and nearly 12,000 tonnes in 2019.
  - Long Marston MRS (Sims) in Worcestershire, which received 7,000 tonnes of Hhold/ Ind/ Com waste in 2021, 6,000 tonnes in 2020 and nearly 23,000 tonnes in 2019.
  - Sims Group UK Limited (MRS) in Dudley received nearly 9,000 tonnes of Hhold/Ind/Com and hazardous waste in 2021, nearly 7,000 tonnes in 2020 and nearly 5,000 tonnes in 2019
  - Meriden Quarry in Solihull received around 8,000 tonnes of Hhold/Ind/Com and Inert waste in 2021 and 2020 and over 10,000 tonnes in 2019.
  - Dunton Recycling in Warwickshire received nearly 7,000 tonnes of Inert and Hhold/Ind/Com waste from Sandwell in 2021, almost 7,500 tonnes in 2020 and nearly 17,000 tonnes in 2019.
  - Nechells Paper Mill (Smurfit Kappa) received more than 6,000 tonnes of Hhold/Ind/Com in 2021 and 2020 and nearly 8,500 tonnes in 2019.

## Destination WPA of Waste Originating in Sandwell Exported to the East Midlands 2019 – 2021

**Table G.13 Waste Originating in Sandwell Exported to the East Midlands by Destination WPA, 2021 (tonnes)**

| Destination WPA  | Waste Exported by Basic Waste Category (tonnes) |                 |              | Total Waste Received<br>Origin Codeable<br>Sandwell - Tonnes | Total Waste Received<br>Origin Codeable<br>Sandwell - % |
|------------------|---|-----------------|--------------|--|---|
|                  | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D   |  |   |
| Derby            | -   | 66              | -            | <b>66</b>  | 0.25%   |
| Derbyshire       | 874   | 608             | 2,461        | <b>3,943</b>   | 15.14%  |
| Leicester        | -   | 66              | -            | <b>66</b>  | 0.25%   |
| Leicestershire   | 34  | 12,659          | -            | <b>12,692</b>  | 48.74%  |
| Lincolnshire     | -   | -               | -            | -  | 0.00%   |
| Northamptonshire | -   | 390             | 6            | <b>396</b>   | 1.52%   |
| Nottingham       | 3,241   | 3,639           | -            | <b>6,880</b>   | 26.42%  |
| Nottinghamshire  | -   | 1,986           | 10           | <b>1,996</b>   | 7.67%   |
| Rutland          | -   | -               | -            | -  | 0.00%   |
| <b>TOTAL</b>     | <b>4,148</b>                                    | <b>19,414</b>   | <b>2,477</b> | <b>26,039</b>  | <b>100.00%</b>  |

Source: Environment Agency Waste Data Interrogator (WDI) 2021



**Table G.14 Waste Originating in Sandwell Exported to the East Midlands by Destination WPA, 2020 (tonnes)**

| Destination WPA  | Waste Exported by Basic Waste Category (tonnes) |                 |              | Total Waste Received<br>Origin Codeable<br>Sandwell - Tonnes | Total Waste Received<br>Origin Codeable<br>Sandwell - % |
|------------------|---|-----------------|--------------|--|---|
|                  | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D   |  |   |
| Derby            | -   | 16              | -            | <b>16</b>  | 0.06%   |
| Derbyshire       | 741   | 1,055           | 1,645        | <b>3,442</b>   | 13.05%  |
| Leicester        | -   | 88              | -            | <b>88</b>  | 0.33%   |
| Leicestershire   | 39  | 10,528          | -            | <b>10,567</b>  | 40.07%  |
| Lincolnshire     | 9   | 2,218           | -            | <b>2,227</b>   | 8.44%   |
| Northamptonshire | -   | 14              | 5            | <b>19</b>  | 0.07%   |
| Nottingham       | 2,959   | 7,053           | -            | <b>10,011</b>  | 37.96%  |
| Nottinghamshire  | -   | -               | -            | <b>-</b>   | 0.00%   |
| Rutland          | -   | -               | -            | <b>-</b>   | 0.00%   |
| <b>TOTAL</b>     | <b>3,748</b>                                    | <b>20,972</b>   | <b>1,651</b> | <b>26,370</b>  | <b>100.00%</b>  |

Source: Environment Agency Waste Data Interrogator (WDI) 2020

**Table G.15 Waste Originating in Sandwell Exported to the East Midlands by Destination WPA, 2019 (tonnes)**

| Destination WPA  | Waste Exported by Basic Waste Category (tonnes) |                 |              | Total Waste Received<br>Origin Codeable<br>Sandwell - Tonnes | Total Waste Received<br>Origin Codeable<br>Sandwell - % |
|------------------|---|-----------------|--------------|--|---|
|                  | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D   |  |   |
| Derby            | -   | -               | -            | -  | 0.00%   |
| Derbyshire       | 568   | 1,054           | 2,540        | <b>4,162</b>   | <b>58.67%</b>   |
| Leicester        | -   | 82              | -            | <b>82</b>  | <b>1.16%</b>  |
| Leicestershire   | 177   | 2,343           | 1            | <b>2,521</b>   | <b>35.54%</b>   |
| Lincolnshire     | -   | 89              | -            | <b>89</b>  | <b>1.25%</b>  |
| Northamptonshire | -   | 138             | 16           | <b>153</b>   | <b>2.16%</b>  |
| Nottingham       | 3   | 84              | -            | <b>87</b>  | <b>1.22%</b>  |
| Nottinghamshire  | -   | -               | -            | -  | 0.00%   |
| Rutland          | -   | -               | -            | -  | 0.00%   |
| <b>TOTAL</b>     | <b>748</b>                                      | <b>3,789</b>    | <b>2,557</b> | <b>7,093</b>   | <b>100.00%</b>  |

Source: Environment Agency Waste Data Interrogator (WDI) 2019

Notes on Tables G13 – G15:

- Waste exported from Sandwell to the East Midlands has varied between 2019 and 2021, with tonnages being lower in 2019 than subsequent years. The East Midlands sites that received the largest tonnages of waste from Sandwell during 2019 - 2021 were:
  - J and A Young Leicester Ltd MRF in Leicestershire received around 10,500 of Hhold/Ind/Com waste (EWC 19: Waste and Water Treatment Wastes) in 2021 and 2020 and 2,000 tonnes in 2019.

- Harrimans Lane (Sims Group MRS) in Nottingham received nearly 7,000 tonnes of Hhold/Ind/Com waste and hazardous in 2021, more than 10,000 tonnes in 2020

## Destination WPA of Waste Originating in Sandwell Exported to the South West 2019 – 2021

**Table G.16 Waste Originating in Sandwell Exported to the South West by Destination WPA, 2021 (tonnes)**

| Destination WPA       | Waste Exported by Basic Waste Category (tonnes) |                 |            | Total Waste Received<br>Origin Codeable<br>Sandwell - Tonnes | Total Waste Received<br>Origin Codeable<br>Sandwell - % |
|-----------------------|---|-----------------|------------|--|---|
|                       | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D |  |   |
| Bristol               | 7   | 57,932          | -          | <b>57,939</b>  | 99.97%  |
| Cornwall              | -   | -               | -          | -  | 0.00%   |
| Devon                 | -   | 4               | -          | <b>4</b>   | 0.01%   |
| Dorset                | -   | -               | -          | -  | 0.00%   |
| Gloucestershire       | -   | -               | -          | -  | 0.00%   |
| Somerset              | 2   | -               | -          | <b>2</b>   | 0.00%   |
| South Gloucestershire | -   | -               | -          | -  | 0.00%   |
| Swindon               | -   | -               | -          | -  | 0.00%   |
| <b>TOTAL</b>          | <b>11</b>                                       | <b>57,947</b>   | -          | <b>57,957</b>  | <b>100.00%</b>  |

Source: Environment Agency Waste Data Interrogator (WDI) 2021

**Table G.17 Waste Originating in Sandwell Exported to the South West by Destination WPA, 2020 (tonnes)**

| Destination WPA              | Waste Exported by Basic Waste Category (tonnes) |                 |            | Total Waste Received<br>Origin Codeable<br>Sandwell - Tonnes | Total Waste Received<br>Origin Codeable<br>Sandwell - % |
|------------------------------|---|-----------------|------------|--|---|
|                              | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D |  |   |
| <b>Bristol</b>               | 3   | 46,158          | -          | <b>46,161</b>  | 98.33%  |
| <b>Cornwall</b>              | -   | -               | -          | -  | 0.00%   |
| <b>Devon</b>                 | 1   | 779             | -          | <b>779</b>   | 1.66%   |
| <b>Dorset</b>                | -   | -               | -          | -  | 0.00%   |
| <b>Gloucestershire</b>       | -   | -               | -          | -  | 0.00%   |
| <b>Somerset</b>              | -   | -               | -          | -  | 0.00%   |
| <b>South Gloucestershire</b> | -   | -               | -          | -  | 0.00%   |
| <b>Swindon</b>               | -   | -               | -          | -  | 0.00%   |
| <b>TOTAL</b>                 | <b>6</b>  | <b>46,937</b>   | -          | <b>46,943</b>  | <b>100.00%</b>  |

Source: Environment Agency Waste Data Interrogator (WDI) 2020

**Table G.18 Waste Originating in Sandwell Exported to the South West by Destination WPA, 2019 (tonnes)**

| Destination WPA       | Waste Exported by Basic Waste Category (tonnes) |                 |            | Total Waste Received<br>Origin Codeable<br>Sandwell - Tonnes | Total Waste Received<br>Origin Codeable<br>Sandwell - % |
|-----------------------|---|-----------------|------------|--|---|
|                       | Hazardous                                       | Hhold/ Ind/ Com | Inert/ C&D |  |   |
| Bristol               | 0   | 13,236          | -          | 13,236   | 99.90%  |
| Cornwall              | -   | -               | -          | -  | 0.00%   |
| Devon                 | -   | 7               | -          | 7  | 0.05%   |
| Dorset                | -   | 0               | -          | 0  | 0.00%   |
| Gloucestershire       | -   | 5               | -          | 5  | 0.04%   |
| Somerset              | -   | -               | -          | -  | 0.00%   |
| South Gloucestershire | -   | -               | -          | -  | 0.00%   |
| Swindon               | -   | 2               | -          | 2  | 0.01%   |
| <b>TOTAL</b>          | <b>0</b>  | <b>13,250</b>   | <b>-</b>   | <b>13,250</b>  | <b>100.00%</b>  |

Source: Environment Agency Waste Data Interrogator (WDI) 2019

Notes on Tables G16 – G18:

- There was an overall increase in waste exported from Sandwell to the South West between 2019 and 2021, with tonnages significantly increasing. Nearly all of the waste exported to the South West 2019 – 2021 was received at just one site:
  - Royal Edward Dock MRS (Sims Group) in Bristol received by far the most waste, more than 57,000 of Hhold/ Ind/ Com (mostly EWC 19: Waste and Water Treatment Wastes) in 2021, nearly 46,000 tonnes in 2020 and over 13,000 tonnes in 2019
- Analysis of the WDI data by EWC Sub Chapter indicates that most of the waste received at the Royal Edward Dock MRS was metal shredding wastes.

# Appendix H

## Waste Growth and Capacity Projections over the Plan Period and Beyond

**Table H.1a Projected Waste Growth over the Plan Period by Waste Stream (2021 – 2040)**

| Waste Stream | 2021             | 2022             | 2023             | 2024             | 2025             | 2026             | 2027             | 2028             | 2029             | 2030             | 2031             | 2032             | 2033             | 2034             | 2035             | 2036             | 2037             | 2038             | 2039             | 2040             |
|--------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Imports      | 1,217,925        | 1,224,015        | 1,230,135        | 1,236,286        | 1,242,467        | 1,248,680        | 1,254,923        | 1,261,198        | 1,267,504        | 1,273,841        | 1,280,210        | 1,286,611        | 1,293,044        | 1,299,510        | 1,306,007        | 1,312,537        | 1,319,100        | 1,325,695        | 1,332,324        | 1,338,986        |
| Household    | 128,000          | 128,589          | 129,178          | 129,767          | 130,357          | 130,946          | 131,536          | 132,126          | 132,717          | 133,307          | 133,898          | 134,489          | 135,080          | 135,671          | 136,262          | 136,854          | 137,446          | 138,038          | 138,630          | 139,223          |
| C & I        | 77,283           | 77,875           | 78,471           | 79,071           | 79,675           | 80,283           | 80,895           | 81,511           | 82,131           | 82,756           | 83,384           | 84,017           | 84,654           | 85,296           | 85,942           | 86,592           | 87,246           | 87,905           | 88,568           | 89,235           |
| CD&EW        | 272,617          | 275,016          | 284,825          | 294,984          | 305,506          | 316,402          | 327,688          | 339,375          | 351,480          | 364,017          | 377,000          | 390,447          | 404,373          | 418,796          | 433,734          | 449,204          | 465,226          | 481,820          | 499,005          | 516,803          |
| Agricultural | 31               | 31               | 31               | 31               | 32               | 32               | 32               | 32               | 32               | 32               | 33               | 33               | 33               | 33               | 33               | 33               | 34               | 34               | 34               | 34               |
| Hazardous    | 56,635           | 56,918           | 57,203           | 57,489           | 57,776           | 58,065           | 58,356           | 58,647           | 58,941           | 59,235           | 59,531           | 59,829           | 60,128           | 60,429           | 60,731           | 61,035           | 61,340           | 61,647           | 61,955           | 62,265           |
| <b>Total</b> | <b>1,752,492</b> | <b>1,762,444</b> | <b>1,779,843</b> | <b>1,797,628</b> | <b>1,815,812</b> | <b>1,834,408</b> | <b>1,853,429</b> | <b>1,872,890</b> | <b>1,892,804</b> | <b>1,913,188</b> | <b>1,934,057</b> | <b>1,955,426</b> | <b>1,977,313</b> | <b>1,999,735</b> | <b>2,022,709</b> | <b>2,046,255</b> | <b>2,070,391</b> | <b>2,095,138</b> | <b>2,120,516</b> | <b>2,146,546</b> |

**Table H.1b Projected Waste Growth beyond the Plan Period by Waste Stream (2041 – 2050)**

| Waste Stream | 2041             | 2042             | 2043             | 2044             | 2045             | 2046             | 2047             | 2048             | 2049             | 2050             |
|--------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Imports      | 1,345,680        | 1,352,409        | 1,359,171        | 1,365,967        | 1,372,797        | 1,379,661        | 1,386,559        | 1,393,492        | 1,400,459        | 1,407,461        |
| Household    | 139,815          | 140,408          | 141,001          | 141,594          | 142,188          | 142,781          | 143,375          | 143,969          | 144,563          | 145,158          |
| C & I        | 89,908           | 90,584           | 91,265           | 91,951           | 92,641           | 93,336           | 94,035           | 94,739           | 95,448           | 96,162           |
| CD&EW        | 535,236          | 554,327          | 574,099          | 594,575          | 615,782          | 637,746          | 660,493          | 684,051          | 708,449          | 733,718          |
| Agricultural | 34               | 34               | 35               | 35               | 35               | 35               | 35               | 35               | 36               | 36               |
| Hazardous    | 62,576           | 62,889           | 63,203           | 63,519           | 63,837           | 64,156           | 64,477           | 64,799           | 65,123           | 65,449           |
| <b>Total</b> | <b>2,173,250</b> | <b>2,200,651</b> | <b>2,228,774</b> | <b>2,257,641</b> | <b>2,287,280</b> | <b>2,317,715</b> | <b>2,348,974</b> | <b>2,381,086</b> | <b>2,414,079</b> | <b>2,447,984</b> |

**Table H.2a Projected Waste Growth for WMS1, by Management Method, over the Plan Period (2021 – 2040)**

| Management Method | 2021      | 2022      | 2023      | 2024      | 2025      | 2026      | 2027      | 2028      | 2029      | 2030      | 2031      | 2032      | 2033      | 2034      | 2035      | 2036      | 2037      | 2038      | 2039      | 2040      |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>Recycling</b>  | 812,577   | 816,798   | 821,664   | 826,579   | 831,546   | 836,563   | 841,634   | 846,760   | 851,940   | 857,178   | 862,474   | 867,830   | 873,247   | 878,727   | 884,272   | 889,883   | 895,561   | 901,309   | 907,129   | 913,022   |
| <b>Recovery</b>   | 335,217   | 337,053   | 339,991   | 342,986   | 346,040   | 349,156   | 352,335   | 355,580   | 358,892   | 362,274   | 365,729   | 369,258   | 372,864   | 376,549   | 380,317   | 384,170   | 388,111   | 392,143   | 396,268   | 400,490   |
| <b>Transfer</b>   | 361,915   | 363,875   | 366,724   | 369,622   | 372,573   | 375,576   | 378,634   | 381,749   | 384,922   | 388,155   | 391,450   | 394,809   | 398,233   | 401,726   | 405,289   | 408,924   | 412,634   | 416,421   | 420,287   | 424,235   |
| <b>Disposal</b>   | 242,783   | 244,718   | 251,465   | 258,441   | 265,654   | 273,113   | 280,826   | 288,802   | 297,051   | 305,581   | 314,404   | 323,530   | 332,969   | 342,732   | 352,831   | 363,278   | 374,085   | 385,266   | 396,832   | 408,798   |
| <b>Total</b>      | 1,752,492 | 1,762,444 | 1,779,843 | 1,797,628 | 1,815,812 | 1,834,408 | 1,853,429 | 1,872,890 | 1,892,804 | 1,913,188 | 1,934,057 | 1,955,426 | 1,977,313 | 1,999,735 | 2,022,709 | 2,046,255 | 2,070,391 | 2,095,138 | 2,120,516 | 2,146,546 |

**Table H.2b Projected Waste Growth for WMS1, by Management Method, beyond the Plan Period (2041 – 2050)**

| Management Method | 2041      | 2042      | 2043      | 2044      | 2045      | 2046      | 2047      | 2048      | 2049      | 2050      |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>Recycling</b>  | 918,990   | 925,035   | 931,160   | 937,367   | 943,657   | 950,033   | 956,498   | 963,054   | 969,704   | 976,449   |
| <b>Recovery</b>   | 404,813   | 409,239   | 413,772   | 418,416   | 423,175   | 428,052   | 433,051   | 438,177   | 443,433   | 448,825   |
| <b>Transfer</b>   | 428,269   | 432,389   | 436,600   | 440,904   | 445,304   | 449,803   | 454,405   | 459,113   | 463,931   | 468,861   |
| <b>Disposal</b>   | 421,179   | 433,988   | 447,241   | 460,955   | 475,144   | 489,826   | 505,020   | 520,742   | 537,011   | 553,848   |
| <b>Total</b>      | 2,173,250 | 2,200,651 | 2,228,774 | 2,257,641 | 2,287,280 | 2,317,715 | 2,348,974 | 2,381,086 | 2,414,079 | 2,447,984 |



**Table H.3a Projected Waste Growth for WMS2, by Management Method, over the Plan Period (2021 – 2040)**

| Management Method | 2021      | 2022      | 2023      | 2024      | 2025      | 2026      | 2027      | 2028      | 2029      | 2030      | 2031      | 2032      | 2033      | 2034      | 2035      | 2036      | 2037      | 2038      | 2039      | 2040      |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>Recycling</b>  | 812,577   | 838,973   | 865,019   | 891,843   | 919,478   | 938,145   | 957,592   | 977,859   | 998,983   | 1,039,569 | 1,064,290 | 1,089,371 | 1,114,820 | 1,140,644 | 1,166,851 | 1,178,091 | 1,189,576 | 1,201,313 | 1,213,312 | 1,225,580 |
| <b>Recovery</b>   | 335,217   | 339,099   | 342,933   | 347,325   | 352,307   | 366,223   | 380,878   | 396,308   | 412,552   | 447,436   | 453,651   | 460,071   | 466,702   | 473,553   | 480,631   | 489,022   | 497,667   | 506,576   | 515,758   | 525,222   |
| <b>Transfer</b>   | 361,915   | 359,346   | 357,886   | 356,319   | 354,642   | 352,996   | 351,229   | 349,335   | 347,307   | 341,096   | 330,415   | 319,634   | 308,754   | 297,775   | 286,696   | 288,817   | 290,972   | 293,163   | 295,390   | 297,654   |
| <b>Disposal</b>   | 242,783   | 225,026   | 210,846   | 195,597   | 179,219   | 163,005   | 145,555   | 126,800   | 106,669   | 85,087    | 85,701    | 86,350    | 87,037    | 87,763    | 88,531    | 90,325    | 92,176    | 94,086    | 96,056    | 98,089    |
| <b>Total</b>      | 1,752,492 | 1,762,444 | 1,776,684 | 1,791,084 | 1,805,645 | 1,820,369 | 1,835,254 | 1,850,302 | 1,865,512 | 1,913,188 | 1,934,057 | 1,955,426 | 1,977,313 | 1,999,735 | 2,022,709 | 2,046,255 | 2,070,391 | 2,095,138 | 2,120,516 | 2,146,546 |

**Table H.3b Projected Waste Growth for WMS2, by Management Method, beyond the Plan Period (2041 – 2050)**

| Management Method | 2041      | 2042      | 2043      | 2044      | 2045      | 2046      | 2047      | 2048      | 2049      | 2050      |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>Recycling</b>  | 1,238,128 | 1,250,962 | 1,264,095 | 1,277,534 | 1,291,291 | 1,305,375 | 1,319,799 | 1,334,572 | 1,349,707 | 1,365,217 |
| <b>Recovery</b>   | 534,979   | 545,038   | 555,410   | 566,106   | 577,138   | 588,516   | 600,254   | 612,364   | 624,859   | 637,753   |
| <b>Transfer</b>   | 299,957   | 302,301   | 304,685   | 307,112   | 309,582   | 312,097   | 314,659   | 317,268   | 319,927   | 322,637   |
| <b>Disposal</b>   | 100,186   | 102,350   | 104,584   | 106,889   | 109,269   | 111,726   | 114,262   | 116,881   | 119,585   | 122,378   |
| <b>Total</b>      | 2,173,250 | 2,200,651 | 2,228,774 | 2,257,641 | 2,287,280 | 2,317,715 | 2,348,974 | 2,381,086 | 2,414,079 | 2,447,984 |

**Table H.4a Projected Waste Growth for WMS3, by Management Method, over the Plan Period (2021 – 2040)**

| Management Method | 2021      | 2022      | 2023      | 2024      | 2025      | 2026      | 2027      | 2028      | 2029      | 2030      | 2031      | 2032      | 2033      | 2034      | 2035      | 2036      | 2037      | 2038      | 2039      | 2040      |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>Recycling</b>  | 812,577   | 830,652   | 850,011   | 870,090   | 890,924   | 912,546   | 934,995   | 958,309   | 982,529   | 1,007,697 | 1,019,468 | 1,031,454 | 1,043,659 | 1,056,090 | 1,068,754 | 1,078,831 | 1,089,125 | 1,099,640 | 1,110,386 | 1,121,368 |
| <b>Recovery</b>   | 335,217   | 343,469   | 353,454   | 364,164   | 375,637   | 387,915   | 401,039   | 415,055   | 430,008   | 445,948   | 453,267   | 460,802   | 468,560   | 476,548   | 485,987   | 494,404   | 503,075   | 512,011   | 521,219   | 530,709   |
| <b>Transfer</b>   | 361,915   | 361,802   | 362,520   | 363,229   | 363,929   | 364,618   | 365,296   | 365,961   | 366,613   | 367,249   | 368,629   | 370,046   | 371,504   | 373,002   | 374,543   | 377,770   | 381,061   | 384,417   | 387,842   | 391,336   |
| <b>Disposal</b>   | 242,783   | 226,522   | 213,858   | 200,145   | 185,322   | 169,329   | 152,099   | 133,565   | 113,655   | 92,294    | 92,692    | 93,124    | 93,591    | 94,095    | 93,425    | 95,250    | 97,130    | 99,070    | 101,070   | 103,132   |
| <b>Total</b>      | 1,752,492 | 1,762,444 | 1,779,843 | 1,797,628 | 1,815,812 | 1,834,408 | 1,853,429 | 1,872,890 | 1,892,804 | 1,913,188 | 1,934,057 | 1,955,426 | 1,977,313 | 1,999,735 | 2,022,709 | 2,046,255 | 2,070,391 | 2,095,138 | 2,120,516 | 2,146,546 |

**Table H.4b Projected Waste Growth for WMS3, by Management Method, beyond the Plan Period (2041 – 2050)**

| Management Method | 2041      | 2042      | 2043      | 2044      | 2045      | 2046      | 2047      | 2048      | 2049      | 2050      |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>Recycling</b>  | 1,132,596 | 1,144,076 | 1,155,818 | 1,167,830 | 1,180,120 | 1,192,699 | 1,205,576 | 1,218,760 | 1,232,261 | 1,246,092 |
| <b>Recovery</b>   | 540,492   | 550,577   | 560,976   | 571,698   | 582,756   | 594,162   | 605,926   | 618,063   | 630,584   | 643,504   |
| <b>Transfer</b>   | 394,902   | 398,543   | 402,261   | 406,058   | 409,937   | 413,901   | 417,952   | 422,093   | 426,327   | 430,657   |
| <b>Disposal</b>   | 105,260   | 107,455   | 109,719   | 112,055   | 114,466   | 116,953   | 119,521   | 122,171   | 124,906   | 127,730   |
| <b>Total</b>      | 2,173,250 | 2,200,651 | 2,228,774 | 2,257,641 | 2,287,280 | 2,317,715 | 2,348,974 | 2,381,086 | 2,414,079 | 2,447,984 |

**Table H.5a Projected Waste Capacity over the Plan Period by Site Category (2021 – 2040)**

| Waste Stream | 2021             | 2022             | 2023             | 2024             | 2025             | 2026             | 2027             | 2028             | 2029             | 2030             | 2031             | 2032             | 2033             | 2034             | 2035             | 2036             | 2037             | 2038             | 2039             | 2040             |
|--------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Disposal     | 4,754,877        | 4,504,877        | 4,254,877        | 4,004,877        | 3,754,877        | 3,504,877        | 3,254,877        | 3,004,877        | 2,754,877        | 2,504,877        | 2,254,877        | 2,004,877        | 1,754,877        | 1,504,877        | 1,254,877        | 1,004,877        | 754,877          | 504,877          | 254,877          | 4,877            |
| Transfer     | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          |
| Recovery     | 167,683          | 167,683          | 167,683          | 167,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          |
| Recycling    | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          |
| <b>Total</b> | <b>6,070,894</b> | <b>5,820,894</b> | <b>5,570,894</b> | <b>5,320,894</b> | <b>5,465,894</b> | <b>5,215,894</b> | <b>4,965,894</b> | <b>4,715,894</b> | <b>4,465,894</b> | <b>4,215,894</b> | <b>3,965,894</b> | <b>3,715,894</b> | <b>3,465,894</b> | <b>3,215,894</b> | <b>2,965,894</b> | <b>2,715,894</b> | <b>2,465,894</b> | <b>2,215,894</b> | <b>1,965,894</b> | <b>1,715,894</b> |

**Table H.5b Projected Waste Capacity beyond the Plan Period by Site Category (2041 – 2050)**

| Waste Stream | 2041             | 2042             | 2043             | 2044             | 2045             | 2046             | 2047             | 2048             | 2049             | 2050             |
|--------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Disposal     | -                | -                | -                | -                | -                | -                | -                | -                | -                | -                |
| Transfer     | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          | 394,269          |
| Recovery     | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          | 562,683          |
| Recycling    | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          | 754,065          |
| <b>Total</b> | <b>1,711,017</b> | <b>1,711,017</b> | <b>1,711,017</b> | <b>1,711,017</b> | <b>1,711,017</b> | <b>1,711,017</b> | <b>1,711,017</b> | <b>1,711,017</b> | <b>1,711,017</b> | <b>1,711,017</b> |

**Table H6a Projected Capacity Gaps/surpluses under each WMS over the Plan Period, by Site Category (2021 – 2040)**

| Site Category    | 2021      | 2022      | 2023      | 2024      | 2025      | 2026      | 2027      | 2028      | 2029      | 2030      | 2031      | 2032      | 2033      | 2034      | 2035      | 2036     | 2037     | 2038     | 2039     | 2040     |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|----------|
| <b>Recycling</b> |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |          |          |          |          |
| WMS1             | -58,513   | -62,733   | -67,599   | -72,514   | -77,481   | -82,498   | -87,569   | -92,695   | -97,875   | -103,113  | -108,409  | -113,765  | -119,182  | -124,662  | -130,207  | -135,818 | -141,496 | -147,244 | -153,064 | -158,957 |
| WMS2             | -58,513   | -84,908   | -110,954  | -137,778  | -165,413  | -184,080  | -203,527  | -223,794  | -244,918  | -285,504  | -310,225  | -335,306  | -360,755  | -386,579  | -412,786  | -424,026 | -435,511 | -447,248 | -459,247 | -471,515 |
| WMS3             | -58,513   | -76,587   | -95,946   | -116,026  | -136,859  | -158,481  | -180,930  | -204,244  | -228,464  | -253,632  | -265,403  | -277,389  | -289,594  | -302,025  | -314,689  | -324,767 | -335,060 | -345,575 | -356,321 | -367,303 |
| <b>Recovery</b>  |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |          |          |          |          |
| WMS1             | -167,534  | -169,371  | -172,308  | -175,303  | 216,643   | 213,527   | 210,348   | 207,103   | 203,791   | 200,408   | 196,954   | 193,425   | 189,819   | 186,133   | 182,365   | 178,512  | 174,572  | 170,540  | 166,415  | 162,192  |
| WMS2             | -167,534  | -171,417  | -175,250  | -179,642  | 210,376   | 196,459   | 181,805   | 166,375   | 150,130   | 115,247   | 109,031   | 102,612   | 95,981    | 89,130    | 82,051    | 73,661   | 65,015   | 56,106   | 46,924   | 37,460   |
| WMS3             | -167,534  | -175,787  | -185,772  | -196,481  | 187,045   | 174,768   | 161,643   | 147,628   | 132,674   | 116,734   | 109,415   | 101,881   | 94,123    | 86,134    | 76,695    | 68,279   | 59,607   | 50,672   | 41,464   | 31,973   |
| <b>Transfer</b>  |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |          |          |          |          |
| WMS1             | 32,354    | 30,394    | 27,546    | 24,647    | 21,697    | 18,694    | 15,635    | 12,521    | 9,348     | 6,115     | 2,820     | -539      | -3,964    | -7,457    | -11,019   | -14,655  | -18,364  | -22,151  | -26,018  | -29,966  |
| WMS2             | 32,354    | 34,923    | 36,384    | 37,950    | 39,628    | 41,274    | 43,040    | 44,934    | 46,962    | 53,173    | 63,855    | 74,635    | 85,515    | 96,494    | 107,573   | 105,452  | 103,297  | 101,107  | 98,880   | 96,615   |
| WMS3             | 32,354    | 32,468    | 31,750    | 31,040    | 30,341    | 29,651    | 28,973    | 28,308    | 27,657    | 27,020    | 25,641    | 24,223    | 22,766    | 21,268    | 19,727    | 16,499   | 13,209   | 9,852    | 6,428    | 2,934    |
| <b>Disposal</b>  |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |          |          |          |          |          |
| WMS1             | 4,512,094 | 4,260,159 | 4,003,412 | 3,746,436 | 3,489,223 | 3,231,764 | 2,974,051 | 2,716,075 | 2,457,826 | 2,199,296 | 1,940,473 | 1,681,347 | 1,421,908 | 1,162,145 | 902,046   | 641,599  | 380,792  | 119,611  | -141,955 | -403,921 |
| WMS2             | 4,512,094 | 4,279,851 | 4,044,031 | 3,809,280 | 3,575,658 | 3,341,872 | 3,109,322 | 2,878,077 | 2,648,208 | 2,419,790 | 2,169,176 | 1,918,527 | 1,667,840 | 1,417,114 | 1,166,346 | 914,552  | 662,701  | 410,791  | 158,821  | -93,212  |
| WMS3             | 4,512,094 | 4,278,355 | 4,041,019 | 3,804,732 | 3,569,555 | 3,335,548 | 3,102,778 | 2,871,312 | 2,641,222 | 2,412,583 | 2,162,185 | 1,911,753 | 1,661,286 | 1,410,782 | 1,161,452 | 909,627  | 657,747  | 405,807  | 153,807  | -98,255  |

**Table H6b Projected Capacity Gaps/surpluses under each WMS beyond the Plan Period, by Site Category (2041 – 2050)**

| Site Category    | 2041     | 2042     | 2043     | 2044     | 2045     | 2046     | 2047     | 2048     | 2049     | 2050     |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>Recycling</b> |          |          |          |          |          |          |          |          |          |          |
| WMS1             | -164,925 | -170,970 | -177,095 | -183,302 | -189,592 | -195,968 | -202,433 | -208,989 | -215,639 | -222,384 |
| WMS2             | -484,063 | -496,897 | -510,030 | -523,469 | -537,226 | -551,310 | -565,734 | -580,507 | -595,642 | -611,152 |
| WMS3             | -378,531 | -390,011 | -401,753 | -413,765 | -426,055 | -438,634 | -451,511 | -464,695 | -478,196 | -492,027 |
| <b>Recovery</b>  |          |          |          |          |          |          |          |          |          |          |
| WMS1             | 157,870  | 153,444  | 148,910  | 144,266  | 139,508  | 134,631  | 129,632  | 124,506  | 119,249  | 113,857  |
| WMS2             | 27,704   | 17,645   | 7,272    | -3,424   | -14,455  | -25,834  | -37,572  | -49,682  | -62,177  | -75,070  |
| WMS3             | 22,191   | 12,105   | 1,707    | -9,016   | -20,074  | -31,479  | -43,244  | -55,380  | -67,902  | -80,822  |
| <b>Transfer</b>  |          |          |          |          |          |          |          |          |          |          |
| WMS1             | -33,999  | -38,120  | -42,330  | -46,634  | -51,034  | -55,534  | -60,136  | -64,844  | -69,661  | -74,592  |
| WMS2             | 94,312   | 91,969   | 89,584   | 87,158   | 84,687   | 82,172   | 79,611   | 77,001   | 74,342   | 71,633   |
| WMS3             | -633     | -4,274   | -7,992   | -11,789  | -15,668  | -19,632  | -23,682  | -27,823  | -32,058  | -36,388  |
| <b>Disposal</b>  |          |          |          |          |          |          |          |          |          |          |
| WMS1             | -421,179 | -433,988 | -447,241 | -460,955 | -475,144 | -489,826 | -505,020 | -520,742 | -537,011 | -553,848 |
| WMS2             | -100,186 | -102,350 | -104,584 | -106,889 | -109,269 | -111,726 | -114,262 | -116,881 | -119,585 | -122,378 |
| WMS3             | -105,260 | -107,455 | -109,719 | -112,055 | -114,466 | -116,953 | -119,521 | -122,171 | -124,906 | -127,730 |