

Telford & Wrekin Council

Waste Study



September 2021

Sacks | Consulting

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1 Introduction and Context

1.1 Local Context

The existing Local Plan for Telford & Wrekin was adopted in January 2018. It covers the period from 2011 to 2031 and contains all the planning policies required to promote the sustainable development of the area, including waste management policies for new facilities and for residential and commercial development.

The Review of the Local Plan has now started and an Issues and Options document was launched with a consultation period in the autumn of 2020. The Review of the Local Plan will cover the period to 2040 and will incorporate more up to date policies reflecting six Strategic Plan Priorities and an updated development vision for the borough. In particular, there will be a greater emphasis on how to respond to the requirement to tackle climate change. The Council declared a climate emergency in July 2019 which committed the Council to carbon neutrality for its own operations by 2030.

This Report provides background information on waste arisings in the Borough and the facilities that are available to manage this waste. The Local Plan will then take this information into account and propose policies to manage these waste arisings in the most sustainable way in accordance with the other policies in the Plan.

The waste policies in the Review of the Local Plan will need to take into account the proposed growth in the Borough and contribute to the target to become carbon neutral by 2030.

The National Planning Policy for Waste (NPPW) was published in 2014 and states that when preparing their Local Plan, Waste Planning Authorities (WPAs) should ensure that the planned provision of new capacity and its spatial distribution is based on robust analysis of best available data and information, and an appraisal of options through using a proportionate evidence base. Furthermore, the NPPW states that the local WPA should identify sufficient opportunities to meet the identified needs of the area for the management of waste streams.

The planning authority also needs to comply with the Duty to Co-operate in taking account of waste movements across authority boundaries and any waste management requirement identified nationally. The Planning White Paper¹ published in August 2020 proposes that the Duty to Co-operate may be abolished, but in the absence of new legislation and proposals for strategic planning, Telford & Wrekin should engage with other waste planning authorities constructively, actively and on an ongoing basis. This Report provides the basis for such engagement and for the agreement of Statements of Common Ground should these be seen to be necessary.

¹ <https://www.gov.uk/government/consultations/planning-for-the-future>

1.2 National Context

The Government published its Resources and Waste Strategy in 2018 in a document called “Our Waste, Our Resources: A Strategy for England²”. This document outlines a number of proposals for reducing the amount of waste produced and managing that which is produced more sustainably. A number of consultations on these policies are on-going, in particular on Extended Producer Responsibility and Consistency in Household and Business Recycling³. These are likely to reduce overall tonnages arising and the target to recycling 65% of municipal waste by 2035 could well be achieved through the implementation of changes arising from these policies.

Implementation of these changes may also lead to a requirement for more treatment facilities, particularly for handling food waste and reprocessing materials such as plastics, metals, paper and card and textiles. However, aside from anaerobic digestion facilities, many of these uses can be located on industrial land and specific site allocations will not be required.

1.3 Definitions of Waste and Data Sources

This report analyses the amount of waste arising by different types in the Borough using the national data sources available. These types are those conventionally used in waste planning which derive from the way in which data on waste arisings is collected and comprise the following categories:

- Local Authority Collected Waste (LACW)
- Commercial and Industrial Waste (C&I)
- Construction, Demolition and Excavation Waste (CDEW)
- Agricultural Waste Hazardous Waste
- Radioactive Waste

Local Authority Collected Waste

Local authorities have statutory duties to arrange for the collection and deposit of household waste in their area. In carrying out these duties, local authorities provide services to householders such as kerbside collections, bulky collections, bring banks and household waste recycling centres (HWRCs). Local authorities are required to report information on the types and quantities of waste they collect using a system called WasteDataFlow. This data source provides information on ‘waste from households’, ‘household’ and ‘local authority collected waste’ for National and UK waste statistics. It is generally fairly accurate and provides good data on this particular waste stream.

Commercial and Industrial (C&I) Waste

Waste generated other than that from households is collected and managed by private sector companies. Commercial and Industrial (C&I) waste is therefore excluded from household and local authority collected waste statistics unless it is collected by the local authority. The private companies that carry out this waste collection often have their own

² <https://www.gov.uk/government/publications/resources-and-waste-strategy-for-england>

³ <https://www.gov.uk/government/consultations/consistency-in-household-and-business-recycling-in-england>

data but this is not collated on a wider basis and data on this waste stream is not easily accessible.

In order to understand how much C&I waste is generated in England, Defra has commissioned a number of surveys for England, but the most recent of these was in 2009. Estimates of waste generation have been carried out by Defra and the Government Statistical Service which have provided figures for arisings for England and the results of these exercises are published in the UK Statistics on waste.⁴

Separate surveys have been carried out in Scotland and Wales which can provide useful sense checks, but it remains difficult to understand C&I waste arisings at the scale of a local authority. This is a particular challenge for a relatively small local authority which does not generate a significant percentage of the total arisings for England.

In order to calculate C&I waste arising in Telford & Wrekin, a calculation has therefore been carried out as follows:

The total amount of waste from Telford & Wrekin managed at waste facilities can be identified from the Waste Data Interrogator (WDI)⁵.

From this is deducted the known amount of Construction and Demolition waste which is shown as “Chapter 17” waste, Agricultural Waste, Waste Water which is taken to dedicated sewage treatment works and Local Authority Collected Waste which is identified in separate data sources. The resulting figure gives an estimate of the C&I waste arisings from the subject local authority.

Composition of Waste

A further categorization of waste relates to its properties rather than its origin. The Environment Agency has published “Technical Guidance WM3”⁶ which is a guide to the classification and assessment of waste. This explains how waste should be described in the returns made to the EA in permits. It contains the “List of Waste” which gives each type of waste a code and is based on the European Waste Catalogue (EWC). These codes are given in the WDI and enable an analysis of the types of materials that require management.

In the context of waste planning, it is important to understand the nature of waste to be managed in order to be able to provide for facilities suitable for the management of these different types of waste. The key categories are as follows:

Hazardous waste - waste is generally considered hazardous if it or the material or substances it contains are harmful to humans or the environment. The Environment Agency produces a separate Hazardous Waste Data Interrogator which shows that while the quantities arising are relatively small, they tend to travel large distances across the country so as to be treated in appropriate facilities. The analysis of hazardous waste is an important

⁴ <https://www.gov.uk/government/statistics/uk-waste-data>

⁵ <https://environment.data.gov.uk/portalstg/home/item.html?id=3846ab81a365488fb6c11c0847827bf4>

⁶

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/948735/Waste_classification_technical_guidance_WM3.pdf

part of its management and many materials can be re-processed and re-used if they can be separated and refined. Other treatment routes are high temperature incineration in specialist facilities and landfill in hazardous waste landfill sites or hazardous waste cells within non-hazardous landfill sites.

Inert waste - Inert waste is waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter that it comes into contact with, in a way likely to cause environmental pollution or harm to human health. Inert waste largely arises from demolition and construction activity and can be processed on or off-site for use on building sites or disposed of in landfill. If inert waste is disposed of to landfill, landfill tax is charged at the lower rate currently £3 per tonne as opposed to £94.15 per tonne for the standard rate. The data for inert waste tends to be of poor quality since a significant proportion of it is managed on site or at waste management sites that operate under an “exemption” from the permitting regime of the Environment Agency and therefore regular returns do not have to be supplied. By its nature it tends to be very heavy and so appears to exist in large quantities, notwithstanding that it would not have significant environmental impacts in the environment.

Non-hazardous waste - Non-hazardous waste is any waste that does not cause harm to people or the environment and regulations for disposal of non-hazardous waste are less strict than for hazardous wastes. This waste stream includes any rubbish or recycling that causes no harm to human or environmental health and can be from business or household producers. The waste arising from households and businesses (other than construction activity) is categorised as non-hazardous waste. In the Waste Data Interrogator this waste stream is identified as “Household, Industrial and Commercial” or HIC waste.

1.4 Methodology

The main data source for understanding how much waste is being managed is the Waste Data Interrogator (WDI) which is managed by the Environment Agency. The information in the WDI is collated from the Waste Management Permits that are granted to the operators of waste facilities who make returns to the Environment Agency. These returns contain information on quantities, types and sources of waste including location by district. However, the accuracy of this data is dependent on each operator providing correct information in their returns and this does not occur in all cases.

In order to develop appropriate waste management policies are required in the Local Plan, the first stage is to understand how much waste is arising in the Plan Area and what sort of waste it is. The next stage is to assess the existing waste management capacity in the Plan Area together with other key facilities that support the management of waste arising in Telford & Wrekin. If there is a need to identify additional waste management capacity in the borough, then the necessary policies will need to be developed as part of the Local Plan process.

2 Waste Arisings

2.1 Local Authority Collected Waste

Historic and current arisings

Past arisings of Local Authority Collected Waste can be obtained from information submitted through WasteDataFlow as described above and are set out in the table below.

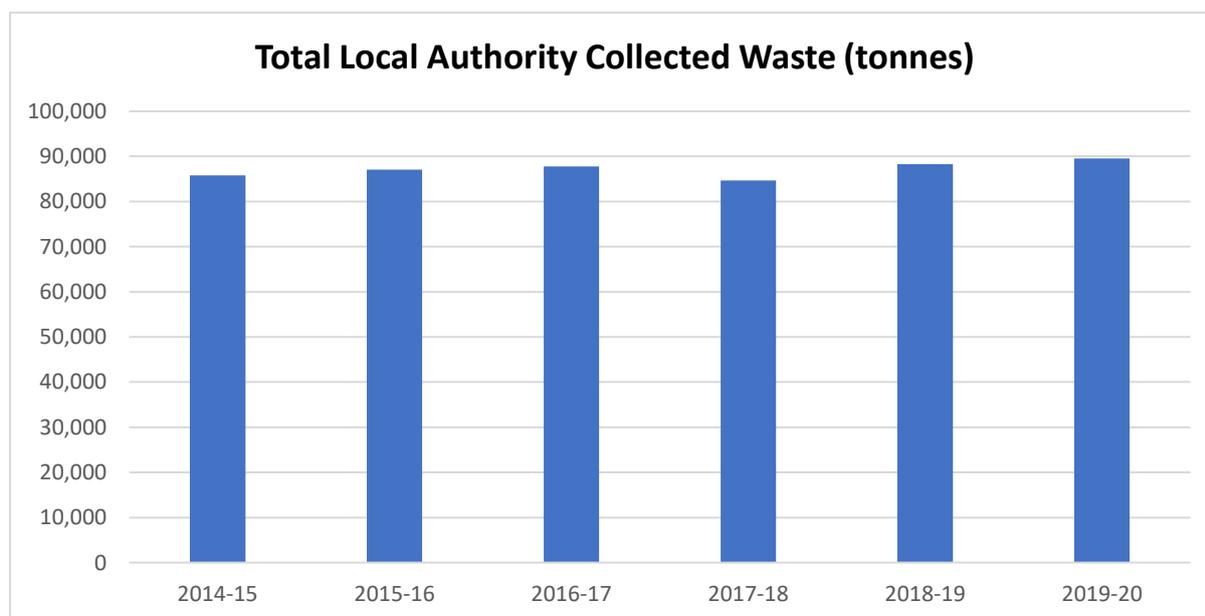
Table 1 Quantities of Local Authority Collected Waste managed arising in Telford and Wrekin (tonnes)

Year	Landfill	Incineration with energy recovery	Incineration without energy recovery	Recycled and Composted	Other	Total	Input to intermediate plants
2014-15	44,181	1,426	0	40,061	155	85,823	3,338
2015-16	44,412	1,275	4	41,225	179	87,096	3,048
2016-17	23,956	22,011	4	40,838	980	87,789	2,480
2017-18	1,121	43,177	3	40,334	4	84,639	1,900
2018-19	1,541	42,464	8	43,602	665	88,280	1,931
2019-20	1,251	40,570	4	46,848	886	89,558	3,294

Source: Defra Waste Statistics 2019

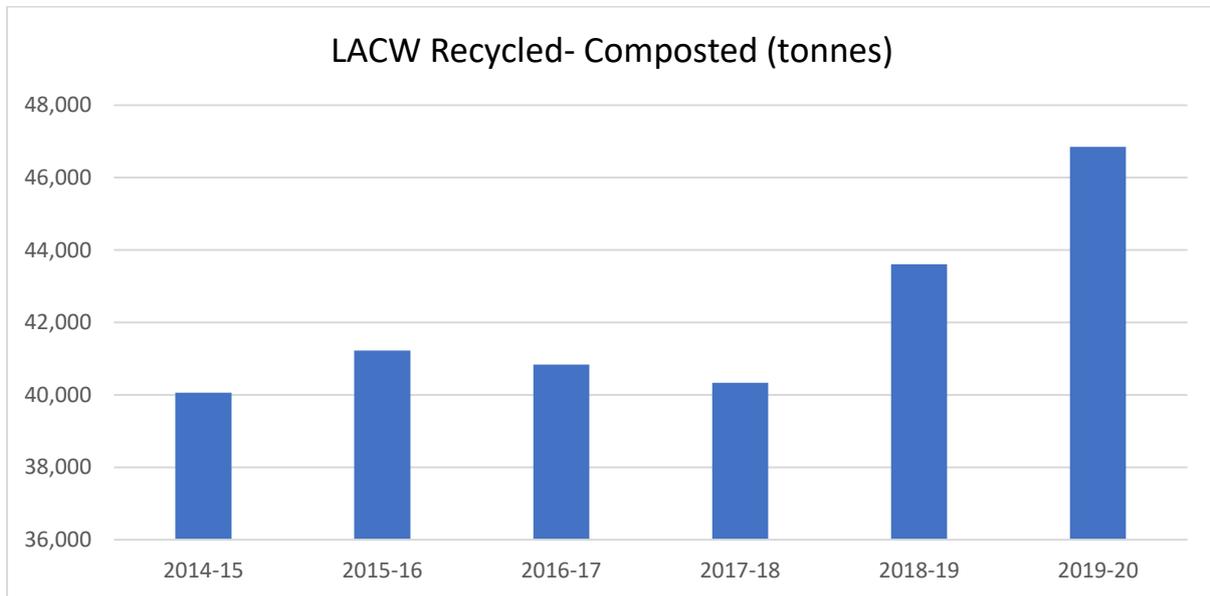
It can be seen from this that total arisings have remained broadly stable over the past six years and this is illustrated in the figure below.

Figure 1 Total Local Authority Collected Waste (tonnes)



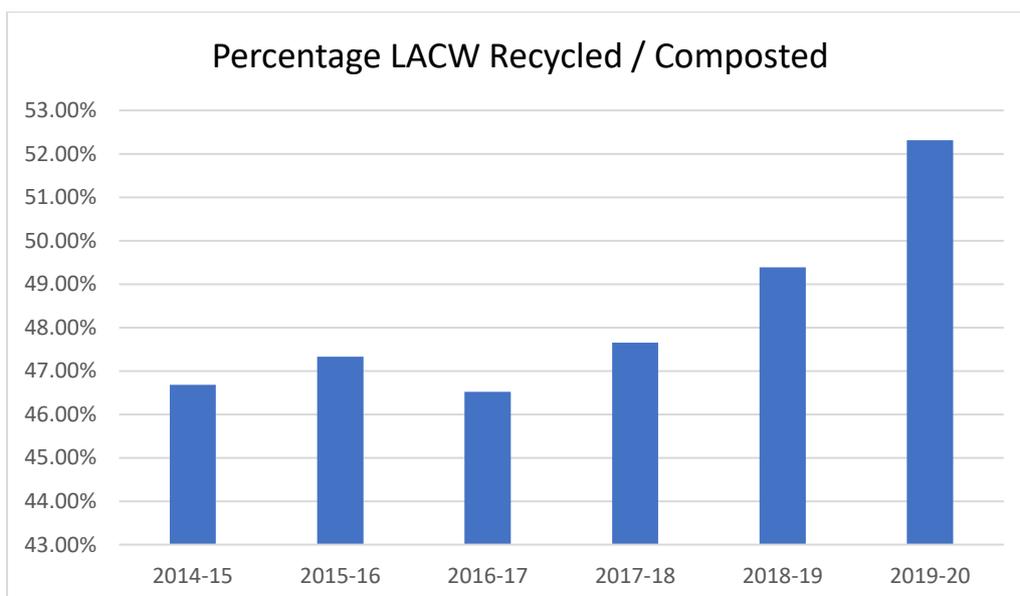
The amount of Local Authority Collected Waste that is sent for recycling and composting has significantly increased over this period as shown in the figure below:

Figure 2 Local Authority Collected Waste sent for recycling and composting



In percentage terms, the recycling and composting rates has increased from just under 47% in 2014-15 to over 52% in 2019-20. This is higher than the national average of around 45% in 2019.⁷ This success is due to the local authority’s system of collecting food waste separately which will become obligatory for all local authorities in England in due course.

Figure 3 Percentage of Local Authority Collected Waste sent for recycling and composting



⁷ UK Statistics on Waste 2020

The most significant change is management routes for Local Authority Collected Waste is in the amount of waste sent to landfill, which has reduced from over 50% in 2014-15 and 2015-16 to under 2% in the years after that date. This reflects the approach contract agreed with Veolia Environmental Services to manage the household waste in the Borough. Under this contract, residual waste is taken to one of two nearby energy from waste facilities at Battlefield in Shropshire (just over 26,000 tonnes in 2019) or Four Ashes in Staffordshire (approximately 14,000 tonnes in 2019).

Figure 4 Local Authority Collected Waste sent to landfill (tonnes)

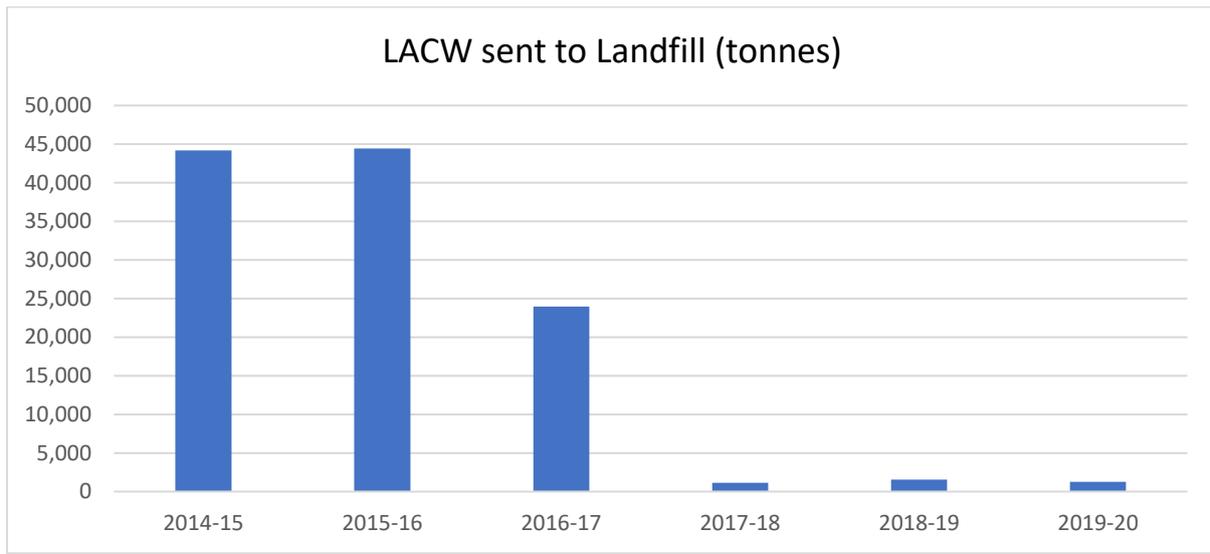
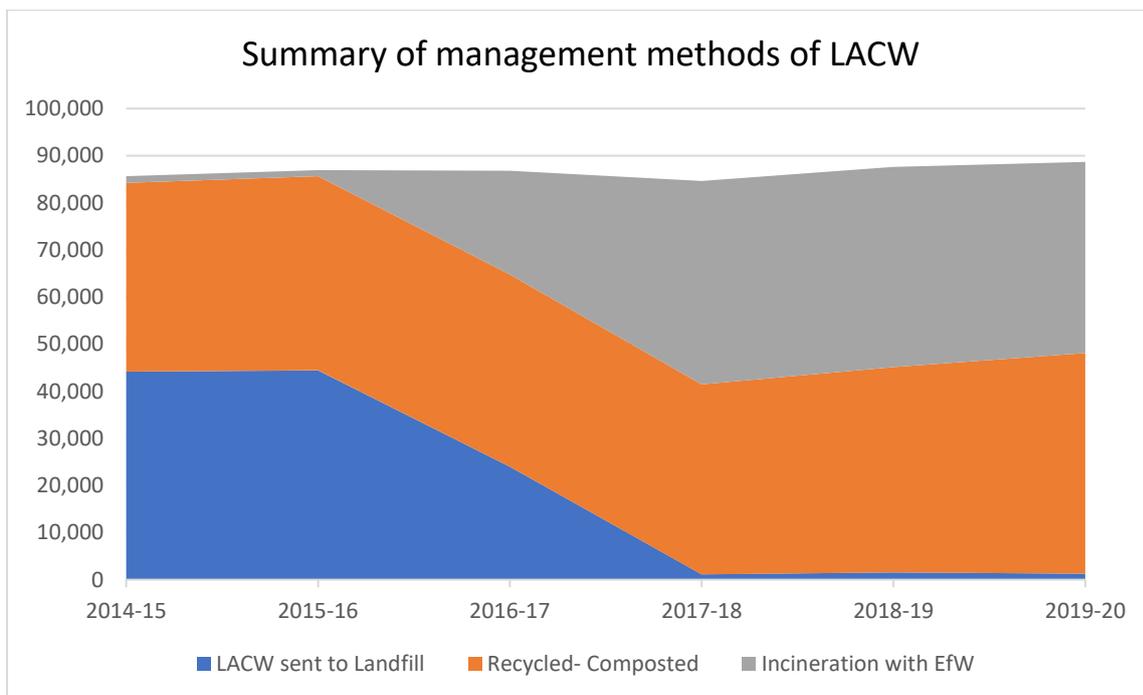


Figure 5 Summary of Management of LACW



Forecasts

A forecast of the total amount of waste arising in this category has been developed by examining the planned increases in housing over the Plan period. This has been analysed in some detail in the Telford & Wrekin Economic and Housing Development Needs Assessment⁸ which was carried out by DLP Planning on behalf of the local authority and published in October 2020. This report identifies housing and employment needs in Telford & Wrekin for the period 2020 to 2040 and provides the evidence base upon which to develop the Review of the Local Plan.

Three different scenarios have therefore been tested for growth:

1. 848 additional dwellings per annum
2. 964 additional dwellings per annum
3. 1,150 additional dwellings per annum

Waste arisings per household in the year 2019-20 in Telford & Wrekin were 1.16 tonnes, which is inline with national figures. Efforts are being made through national policy to reduce waste arisings per head or per household, but this figure has remained broadly constant for many years. It is therefore considered prudent not to assume any significant reduction in the amount of waste arising per household, but to model future arisings on the basis of an increase in the number of households, in accordance with the proposals that are likely to come forward in the Local Plan.

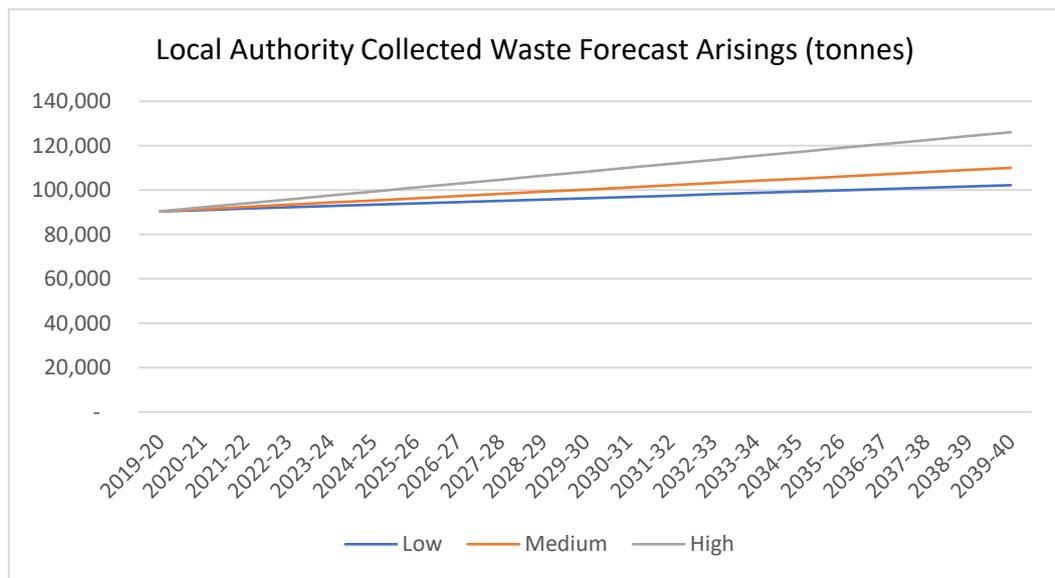
The scenarios above therefore result in increases in waste arisings as follows:

Scenario 1	848 x 1.155 =	979.57 tonnes pa
Scenario 2	964 x 1.155 =	1,113.56 tonnes pa
Scenario 3	1,150 x 1.155 =	1,328.42 tonnes pa

Increasing the household waste arising by the above quantities gives total annual arisings of household waste of between 110,014 and 116,991 in 2039/40 as compared to current annual arisings of approximately 90,400 tonnes per annum. This is shown in the figure below.

⁸ https://www.telford.gov.uk/downloads/download/4577/telford_and_wrekin_local_plan_review_-_economic_and_housing_development_needs_assessment

Figure 6 Forecast of total Local Authority Collected Waste Arisings (tonnes)



The different housing growth scenarios therefore do not make a very significant impact on the total amount of waste that needs to be managed within the Waste Planning Authority Area and certainly not enough additional waste to justify consideration of additional facilities.

Current recycling rates could well increase from 52% to 65% in 2035. The quantity of LACW that is sent to residual treatment facilities under these circumstances would reduce from approximately 43,400 tonnes in the present year to just under 41,000 tonnes in 2039-40. Given the availability of residual waste treatment facilities in neighbouring authorities, there is not likely to be a requirement for additional residual treatment capacity in Telford & Wrekin for LACW.

2.2 Commercial & Industrial Waste

Historic and current arisings

Commercial and Industrial (C&I) waste is waste that arises from businesses. Because it is collected by a wide range of private waste collection companies, there is no single source of data on how much of this waste stream is collected. At a national level, information has therefore been gathered from an intermittent series of surveys and samples combined with an analysis of economic data. These have not been sufficiently consistent to provide a good level of certainty of the quantity of C&I arisings in either the UK or England and when estimates are required at Waste Planning Authority level, the data becomes even less robust. This issue was examined in detail by a report commissioned by the Chartered Institute of Wastes Management from consultants Ricardo in 2013 “Commercial and Industrial Waste in the UK and Republic of Ireland”⁹ which described C&I waste as the “known unknown” of the waste industry. The report points out how C&I waste is “highly

⁹<https://www.ciwm.co.uk/Custom/BSIDocumentSelector/Pages/DocumentViewer.aspx?id=QoR7FzWBtisamYEcWSfL6SxAJRLAPT9vf9UOxY7TX%252bRvV%252ffsIKlsgU2EtUq%252bj7oCo87WOf%252fbs9PqCytSgZ5tfRfy2%252bBshoiDu7f882AjZtgLLztRjeHBL8ywUdWyhRgk>

dependent on the economic stability of the business sector in which it arises”, and in the current context of the lockdowns required by responding to the global coronavirus pandemic this becomes even more pronounced.

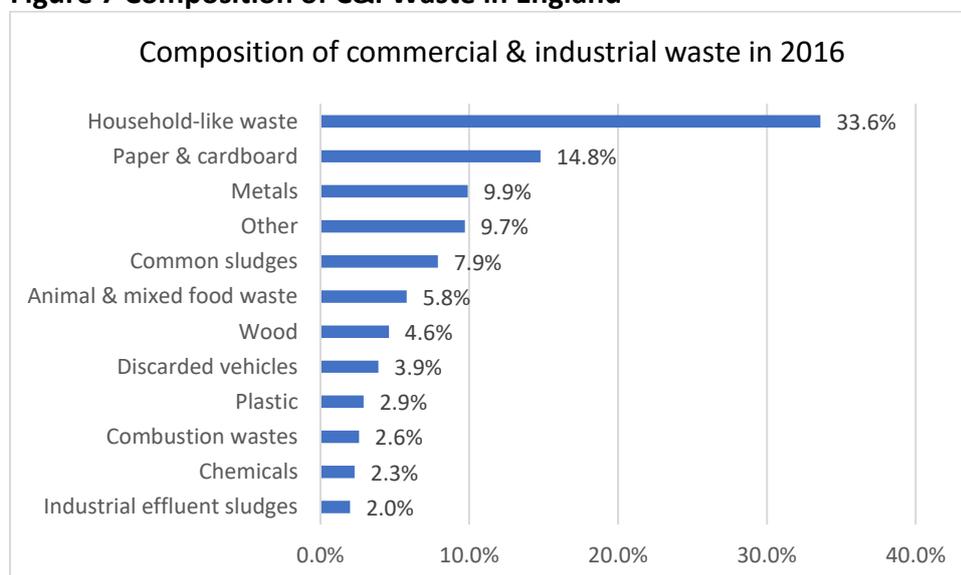
The studies that were carried out into C&I waste arisings in England can be summarised as follows:

- 1998/9 – an Environment Agency survey into C&I waste arisings
- 2002/3 – a further survey by the EA into C&I waste arisings
- 2006/7 – a study carried out by consultants ADAS commissioned by the Regional waste planning bodies which extrapolated data from a survey carried out in the North West region
- 2009 – a study produced by consultants Jacobs commissioned by Defra which collected data from approximately 6,000 businesses and combined this with other survey data and published datasets.

Defra has carried out a further number of pieces of work on this issue, the most recent of which was Commercial and Industrial Waste Arisings Methodology Revisions in October 2018.¹⁰ This describes the methodology for calculating C&I waste arisings for England and identifies a number of areas of weakness in the process including areas where double-counting can occur.

In the National Waste Management Plan for England¹¹ which was updated in 2021, a useful description of the composition of C&I waste is given, notwithstanding that the data for this is from 2016. This is replicated below and shows that approximately one third of C&I waste is “household-like waste”.

Figure 7 Composition of C&I Waste in England



Source: Waste Management Plan for England August 2020

¹⁰https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/873328/Commercial_and_Industrial_Waste_Arisings_Methodology_Revisions_Oct_2018_contact_details_update_v0.2.pdf

¹¹<https://www.gov.uk/government/publications/waste-management-plan-for-england-2021>

Methodology for estimating arisings and forecasting C&I Waste arisings

The calculation of C&I waste arisings is carried out by identifying all waste managed at permitted facilities that originates in Telford & Wrekin and then deducting the waste in other categories ie: local authority collected waste, construction & demolition waste, hazardous wastes and agricultural wastes. Local authority collected waste and C&I wastes both predominantly comprise municipal wastes and so the quantity of LACW is taken from WasteDataFlow. The other waste streams are then deducted using the relevant categories in the WDI.

Waste originating in Telford & Wrekin recorded in the 2019 Waste Data Interrogator is shown in the table below:

Table 2 Total quantities of waste originating in Telford & Wrekin (T&W) and managed in permitted facilities (tonnes)

	Landfill	Incineration	Recovery	Transfer	Treatment	Other	Total
T&W to T&W	2,619	71,416	128,815	2,941		375	205,791
T&W to Shropshire	54	26,278	31,883	1			58,216
T&W to Staffordshire	51,656	17,018	39,617	11	1,531		109,833
T&W to elsewhere		11,304	44,413	200	2,335		58,252
Total	54,329	126,016	244,728	3,153	3,866		432,092

Material that is taken to transfer stations will be double-counted and so this element is taken out of the calculations:

Table 3 Total quantities of waste originating in Telford & Wrekin (T&W) and managed in permitted facilities without transfer element (tonnes)

	Landfill	Incineration	Recovery	Transfer	Treatment	Other	Total
T&W to T&W	2,619	71,416	128,815			375	202,850
T&W to Shropshire	54	26,278	31,883				58,215
T&W to Staffordshire	51,656	17,018	39,617		1,531		109,822
T&W to elsewhere		11,304	44,413		2,335		58,052
Total	54,329	126,016	244,728		3,866		428,939

Construction, Demolition and Excavation Waste (CDEW) is shown as Chapter 17 waste in the List of wastes and this can be deducted from the total amount arising. Similarly, Agricultural Waste is shown as Chapter 2 waste and can be separately identified in the WDI. Hazardous wastes are shown in a separate Hazardous Waste Data Interrogator and can also be considered separately.

Table 4 Total waste managed from the 2019 WDI deducting CDEW, agricultural waste and hazardous waste (tonnes)

	Landfill	Incineration	Recovery	Transfer	Treatment	Other	Total
Without Transfer: Total	54,276	126,016	244,728		3,866		428,886
Less CDEW	55,276	11,279	145,148		72		211,775
Less Agricultural waste		19,531	6,920		1,396		27,847
Less Hazardous waste							3,168
Total							176,096

Finally, Local Authority Collected Waste must be taken out of the equation giving a total for C&I waste arising in Telford & Wrekin in 2019:

176,096 less 89,558 = 86,538, say **86,500 tonnes of C&I waste arising**

The 71,416 tonnes of waste that is recorded as being sent to incineration is first treated at two main sites: Hortonwood Integrated Waste Management Facility and Halesfield Community Recycling Centre. While the final fate of this element of material is given as incineration, it is first sorted at facilities within Telford & Wrekin and the residue that cannot be sent for reprocessing is subsequently sent to incineration facilities that are located outside the Authority.

2.3 Total Non-Hazardous Waste to be Managed

The key issue for the Local Plan is to ensure that there are sufficient facilities available to manage the bulk of the waste arising within the Plan area. The total amount of non-hazardous waste to be managed is approximately 176,000 tonnes per annum, as discussed above. Recycling rates of C&I wastes are understood to be between 34% and 40% for this sector according to Defra (Waste Management Plan for England) but national policy is aimed at significantly increasing this along with household recycling rates to 65%. This means that approximately 65% of the 176,000 tonnes pa arising (114,400 tonnes pa) will need to be collected and sent for reprocessing and the remainder (61,600 tonnes pa) will need to be sent to a residual treatment facility. Of this 176,000 tonne pa, approximately 30% (52,800 tpa) will comprise organic waste that will best be treated using anaerobic digestion or composting facilities.

Forecasts

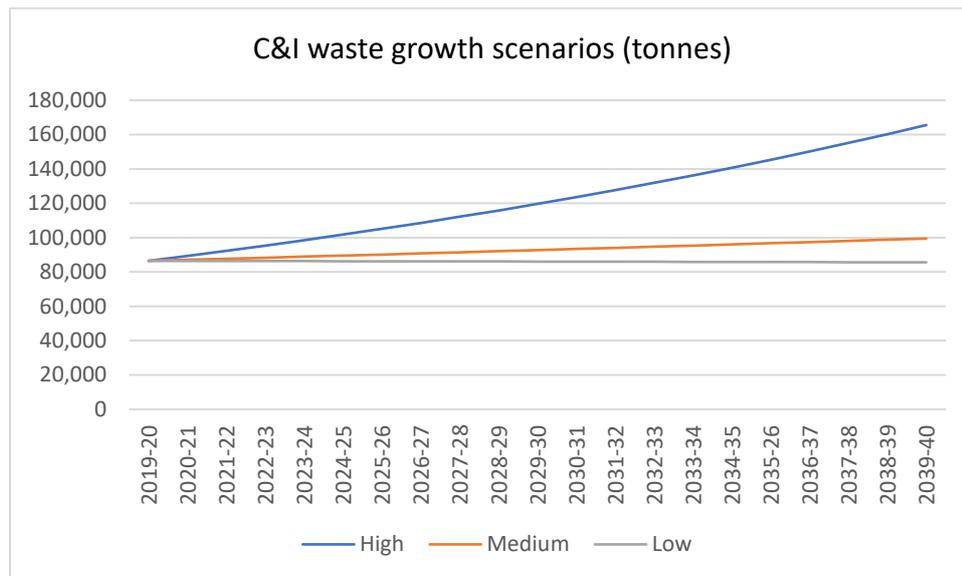
The source of data for the Council's employment and housing requirements is provided through the Economic & Housing Development Needs Assessment (EHDNA, October 2020) which was commissioned by Telford & Wrekin Council from the Strategic Planning Research Unit (SPRU), part of consultants DLP. This describes how Telford & Wrekin has a diverse economy with strengths in the sectors of Environmental Technology, Food Manufacturing and Processing, Advanced Manufacturing and Defence and Security. Telford & Wrekin also has a significantly larger proportion of large businesses compared to the national picture.

The EHDNA examines three different scenarios for economic forecasts varying from a forecast of growth at an average annual rate of 3.3% using the approach from Cambridge Econometrics, to an average annual rate of 0.7% using a forecast developed by Experian and

a negative growth level of 0.05% from Oxford Economics. The different levels of growth vary by sector, but the raw data on C&I arisings is not sufficiently detailed to apply these to each sector.

From a current estimated level of C&I arisings of 86,500 tonnes pa, this could increase to 165,586 tonnes per annum, or decrease slightly to 85,639 tonnes pa, depending on the level of economic growth that actually occurs over the Plan period. This is shown in the figure below:

Figure 8 C&I Waste Growth Forecasts (tonnes)



The “high” scenario is very high and represents nearly a doubling of C&I waste arisings over the plan period. In practice this is unlikely to occur since businesses will take action to reduce the amount of waste that they produce. However, the facilities to manage this type of waste should be considered: these may not need to be residual waste treatment facilities such as energy from waste plants, but they could be transfer stations for sorting, bulking and baling recyclable materials and could also include processing facilities for handling materials such as waste electronics, plastics and textiles. These are waste processing sectors which are growing within the UK and which can deliver the raw materials for manufacturing activity. Telford & Wrekin already hosts one a major facility for processing waste electronics and electrical equipment (WEEE).

However, while some of these activities may require waste management permits if their raw materials comprise waste materials, they are unlikely to be “bad neighbour” uses and should therefore be possible to accommodate on conventional industrial land.

2.4 Construction, Demolition and Excavation Waste

Construction, Demolition and Excavation Waste (CDEW) is the waste that arisings from building sites and has historically been difficult to assess because it is not measured accurately on building sites or at treatment facilities. In addition, much of the waste that is categorised as being “used in construction” can be managed under an exemption from needing an environmental permit, on the basis that the material presents a low risk to the

environment. Obtaining an exemption also means that detailed returns of the quantity of waste handled do not have to be supplied. The data for this waste stream is therefore very weak and there are few recent studies on the arisings in this sector.

The amount of waste handled by permitted facilities is given in table 4 above and amounts to approximately 212,000 tonnes in 2019.

Table 5 CDEW Arisings in 2019 recorded in the WDI 2019

	Landfill	Incineration	Recovery	Treatment	Total
CDEW	55,276	11,279	145,148	72	211,775

2.5 Agricultural Waste

Agricultural wastes are mainly unrecorded, since they are generally managed on-farm close to where they arise.

The 2019 WDI shows agricultural waste that was recorded as treated at permitted waste management facilities in 2019 as totaling 27,847 tonnes. However, the WDI turns out to contain significant inaccuracies with regard to this waste stream in that treatment at an anaerobic digestion plant is categorised as “incineration”, “recovery” or “treatment”.

The table below shows the management routes given in the 2019 WDI for this material:

Table 6 Management routes given in the WDI for agricultural waste treated at permitted waste management facilities in 2019 (tonnes)

Incineration (actually anaerobic digestion)	Recovery	Treatment	Total
19,531	6,920	1,396	27,847

Looking at the data more closely and following the final destination for each entry reveals that the destination of 2,456 tonnes (95%) of the arisings shown was an anaerobic digestion facility. The remainder is contained within the “recovery” category and was sent to hazardous waste transfer facilities.

Table 7 Actual management routes for agricultural waste after examination of facilities used (tonnes)

Anaerobic Digestion	Hazardous Waste Transfer	Total
26,465	1,382	27,847

This exercise demonstrates that the WDI is not a good tool for understanding the management routes for agricultural waste. However, this waste stream is generally managed on site and therefore planning policies for managing this material are likely to focus on the provision of sites to accommodate anaerobic digestion facilities only.

2.6 Radioactive Waste

The UK Radioactive Waste & Materials Inventory is the national record on radioactive wastes and materials in the UK. It can be found at <https://ukinventory.nda.gov.uk/wp-content/uploads/2020/01/2019-Detailed-Data-Report-Final.pdf>

The Inventory contains information on:

- radioactive wastes that exist now;
- radioactive wastes that will arise in future; and
- radioactive materials – these are radioactive items that are not classed as waste now but may be in future if no further use can be found for them.

The Inventory is updated every three years and the most recent version was published in 2019. It is a snapshot of wastes and materials at a specific point in time, called the ‘stock date’.

However, the Inventory excludes information about:

- Liquid and gaseous wastes that are authorised to be discharged into the environment that contain very low levels of radioactivity. These wastes are closely monitored and can only be released if they meet strict conditions and limitations;
- Wastes from small user sites, such as hospitals and universities, which have very low levels of radioactivity and can be safely disposed of through incineration or landfill;
- Radioactive materials which are not subject to nuclear safeguards. All nuclear materials in the UK (uranium, plutonium and thorium) are subject to international safeguards except where they are excluded for national security reasons or have been assigned to meet defence requirements. Nuclear materials may also be exempt where they are used for non-nuclear purposes which incorporate nuclear materials that are in practice irrecoverable. These exempt materials are not included in the Inventory;
- Radioactive sources which are subject to the Environmental Permitting (England and Wales) Regulations 2010 (EPR 10) in England and Wales, and the Radioactive Substances Act 1993 (RSA 93) in Scotland and Northern Ireland (however, redundant sources in existing small user waste streams are reported);
- Naturally occurring radioactive materials (NORM); and
- Radioactive substances which are exempt from being permitted, such as those substances used within smoke detectors.

There are none of these significant radioactive waste sources in Telford & Wrekin and therefore no sources of this type of arisings are shown in the Inventory.

3 Waste Management Capacity

3.1 Introduction

The Local Plan will need to contain policies to enable the provision of sufficient waste management sites to manage the waste arising in the plan area. There is therefore a need to understand the existing waste management capacity in the area. The first step in this

process is to identify all the facilities in the Plan area. The second step is to calculate the capacity of these facilities. Assessing the waste management capacity available is a slightly complex process since the capacity of facilities can alter depending on the technology employed and how they are run.

The throughput of facilities in the most recent year has been taken as a proxy for the annual capacity of each facility. This could result in an under-estimate of total available capacity, but from a planning point of view gives a good guide to available capacity and an indication of whether additional sites might be needed for more facilities.

There must also be a recognition that landfill sites are a wasting asset, which gradually fill up until they are completed. However, the remaining capacity of a landfill site can be difficult to ascertain since the waste in non-hazardous landfill sites will settle over time and the remaining void space often reduces less than would be expected at any particular rate of fill. The only way to understand the remaining capacity of a landfill site is to discuss the matter with the site operator and to monitor this regularly as the site is filled.

3.2 Landfill

There are two non-hazardous landfill sites within the Plan area, one of which is the Candles Landfill site which is now completed and restored. The remaining site is the Granville Landfill site which remains operational. The table below summarises the landfill in the Borough:

Table 8 Landfill sites in Telford & Wrekin

Permit No	Site Name	Facility Address	Operator	Remaining Capacity end 2019 (cubic metres)	Tonnes received in 2019
BU9084IJ	Candles Landfill	Candles Landfill Site, Dog Lane, New works, Little Wenlock, Shropshire TF6 5AR	Veolia ES Landfill Ltd	0	114
RP3739QB BU7103IC	Granville / Woodhouse Landfill	Granville Landfill Site, Grange Lane, Redhill, Telford, Shropshire TF2 9PB	Potters (Midlands) Limited	1,850,000	75,538

While landfill remains the least preferable option for managing waste, it is still required for the disposal of some materials that cannot be recycled or processed.

3.3 Facilities for the Treatment of Residual Waste

There is no dedicated Energy from Waste (incineration) capacity in the Telford & Wrekin but there are two facilities in the neighbouring counties. These are both operated by Veolia who have the contracts for collecting and disposing of household waste for the local authority. These facilities are at Battlefield in Shropshire which has a capacity of approximately 90,000 tonnes per annum, and at Four Ashes in Staffordshire which has a capacity of approximately 340,000 tonnes per annum.

In 2019, the Battlefield facility received just over 26,000 tonnes of residual waste from Telford & Wrekin and the Four Ashes facility received just over 17,000 tonnes from Telford

& Wrekin. There is therefore sufficient residual waste capacity in the wider locality to manage the residual waste arising from the Borough at present. In accordance with the Duty to Co-operate, it will be necessary to liaise with the neighbouring Waste Planning Authorities of Shropshire and Staffordshire to ensure that the necessary capacity remains available in future years.

3.4 Other Facilities for Waste Treatment

The waste treatment facilities located within Telford & Wrekin are varied in nature, with a significant quantity of organic waste treatment capacity, which is important for the treatment of food and green wastes. There is a strategically important facility for the recycling of white goods operated by AO Recycling which receives feedstock from a wide geographical area.

The total quantity of waste treated in 2019 was nearly 259,000 tonnes, although of this 100,000 tonnes was waste water treated by Severn Trent which is not included in the waste arisings examined above.

Table 9 Treatment Facilities within Telford & Wrekin and waste received to them in 2019 (tonnes)

Permit	Site Name	Facility Address	Operator	Permit Type	Tonnes received in 2019
ZP3534RD	AO Recycling Telford - EPR/ZP3534RD	Units A and B, Halesfield 15, Telford, Shropshire, TF7 4LE	AO Recycling Limited	T05 : Physico-chemical treatment installation	54,702
402692	Coppice House	Coppice House, Huntington, Little Wenlock, Telford, Shropshire, TF6 5AR	Mr Glenn Williamson & Mr Gary Williamson	Treatment of waste to produce soil	10,712
47055	Granville Transfer And Treatment Facility	Grange Lane, Redhill, Telford, Shropshire, TF2 9PB	Potters (Midlands) Limited	A15 : Material Recycling Treatment Facility	359
JP3636AW	Lodgewood Recycling Limited	Lodgewood Farm, Redhill Way, Telford, TF2 9PD	Lodgewood Recycling Limited	T01 : Composting installation	49,278
100747	Shropshire Skip Hire	The Gatehouse, Halesfield 14, Telford, Shropshire, TF7 4QR	Leslie Dean	S0807 : HCI Waste TS + treatment + asbestos	5,548
401839	Swift Skips	Plot 12 Front, Tweeddale North Industrial Estate, Madeley, Telford, Shropshire, TF7 4JT	Leslie Stuart - Thompson	S0803 : HCI Waste TS + treatment	3,501
VP3506PE	Thornfield 001 Ltd	Thornfield 001 Ltd, Barnes Farm, Rowton Junction, Rowton, TF6 6QX	Thornfield 001 Limited	Recovery of waste	27

104721	Units 3, 6, 7 And 8 Epic Park	Epic Park, Unit 3, 6, 7 And 8, Halesfield 6, Telford, Shropshire, TF7 4BF	Horizons Resources Ltd	A16 : Physical Treatment Facility	11,032
102512	Xpo I T Services Ltd	Cherwell Enterprise Park, Unit 3 Hortonwood 2, Telford, Shropshire, TF1 7UL	X P O I T Services Ltd	S0823 : WEEE treatment facility	248
401434	New House Farm	Chester Road, Chewynd, Newport, Shropshire, TF10 8BN	M E Furniss & Sons (Farms)	S1210 : On-farm anaerobic digestion using farm wastes only	1,814
402095	Stockton Grange	Stockton Grange, Stockton, Newport, Shropshire, TF10 9BA	Stockton Energy Limited	S1210 : On-farm anaerobic digestion using farm wastes only	19,531
CP3532WJ	Rushmoor S T W - EPR/NP3594EB	Rushmoor STW, Rushmoor Lane, Allscott, Telford, TF6 5EX	Severn Trent Water Limited	T03 : Other Biological Treatment installation	101,952
				Grand Total	258,704

Source: Waste Data Interrogator 2019

3.5 Facilities for Waste Transfer

Transfer facilities play an important role in the sustainable management of waste, enabling some recycling and sorting operations to take place so that material can be sent to be reprocessed. The transfer facilities in the Borough are shown in the table below and include Household Waste Recycling Centres as well as a facility for hazardous waste transfer.

The capacity of transfer facilities in the Borough is in excess of the non-hazardous waste arisings and therefore is likely to be sufficient for the sustainable management of waste in the area.

Table 10 Transfer Facilities within Telford & Wrekin waste received to them in 2019 (tonnes)

Permit	Site Name	Facility Address	Operator	Permit Type	Tonnes Received
47079	Cartwrights Waste Disposal Services Ltd	Unit 21, Halesfield 21, Halesfield, Telford, Shropshire, TF7 4NX,	Cartwrights Waste Disposal Services Ltd	A9 : Hazardous Waste Transfer Station	74,584
47140	Halesfield Community Recycling Centre	Community Recycling Centre, Halesfield Industrial Estate, Halesfield, Telford, Shropshire, TF7 4LN,	Veolia E S (U K) Limited	A13 : Household Waste Amenity Site	5,802

402383	Hortonwood I W M F	Hortonwood I W M F, Hortonwood 60, Hortonwood, Telford, Shropshire, TF1 7GL,	Veolia E S (U K) Limited	A11 : Household, Commercial & Industrial Waste Transfer Stn	76,218
47027	Lineal Construction Transfer Station	Lineal Construction Transfer Station, Audley Avenue, Newport, Shropshire, TF10 7DS,	Lawrence Mr G W	A14 : Transfer Station taking Non-Biodegradable Wastes	14,273
47031	Shropshire Roadsweepers Transfer Station	Stafford Park 13, Stafford Park, Telford, Shropshire, TF3 3AZ,	Go Plant Ltd	A9 : Hazardous Waste Transfer Station	10,275
47192	Unit 14 Tweedale North	Unit 14 Tweedale North, Tweedale Ind Est, Telford, Shropshire, TF7 4JT,	Mr John Pugh And Mr Marcus Pugh	A11 : Household, Commercial & Industrial Waste Transfer Stn	4,165
47177	Unit 18	Unit 18, Tweedale North Industrial Estate, Madeley, Telford, Shropshire, TF7 4JT,	Quick Skips (Telford) Ltd	A11 : Household, Commercial & Industrial Waste Transfer Stn	125
47154	Wellington Insulation Co Ltd	Unit B2 Halesfield 21, Halesfield, Shropshire, TF7 4PS,	Wellington Insulation Co Ltd	A9 : Hazardous Waste Transfer Station	36
Total					185,478

Source: Waste Data Interrogator 2019

Table 11 Metal Recycling Facilities within Telford & Wrekin and waste received to them in 2019 (tonnes)

Permit	Site Name	Facility Address	Operator	Permit Type	Tonnes received in 2019
47157	Angelos Car Dismantlers	Angelos Car Dismantlers, Bridgnorth Road, Madeley, Telford, Shropshire, TF7 4JB,	Angelo Zammit	A19a : ELV Facility	110
401332	Goodspares	Lilleshall Grange, Abbey Road, Lilleshall, Newport, Shropshire, TF10 9HL,	Good Spares Limited	SR2011 Vehicle Depollution Facility	255

47087	Millfields Yard	Millfields Yard, Off Haybridge Road, Wellington, Telford, Shropshire, TF1 1PH,	Rollason, James	A20 : Metal Recycling Site	17,887
47088	Tweeddale North Recycling Centre	Tweeddale North Recycling Centre, Tweeddale North Industrial Estate, Madeley, Telford, Shropshire, TF7 4SR,	J M S Breakers Ltd	A20 : Metal Recycling Site	10,108
47146	Wrekin Motor Spares	Wrekin Motor Spares, Rookery Road, St Georges, Telford, Shropshire, TF2 9BW,	Wrekin Construction Resources Ltd	SR2011 No3 : Vehicle Depollution Facility	35,610
Total					63,970

Source: Waste Data Interrogator 2019

4 Waste Movements

The most significant movements in and out of Telford & Wrekin are the exports of residual waste sent to the energy from waste facilities in Shropshire and Staffordshire described above. The West Midlands Resource Technical Advisory Group has agreed a Duty to Cooperate Protocol which sets out guidelines for liaising with other Waste Planning Authorities where there are cross-boundary movements of waste. The Protocol is intended to avoid unnecessary work where the waste movements are not significant, so that efforts can be focused on understanding significant movements that could have a significant impact on either authority.

- Non-hazardous waste – 5,000 tonnes per annum
- Inert waste - 10,000t tonnes per annum
- Hazardous waste – 100 tonnes per annum

The following tables give a summary of waste movements between Telford & Wrekin and other waste planning authorities where liaison may be necessary.

Table 12 Non-hazardous waste sent from Telford & Wrekin to other authorities in 2019:

WPA	Birmingham City	Sandwell	Shropshire	Staffordshire	Warrington
Tonnes	14,705	34,585	52,987	30,173	10,952

Table 13 Non-hazardous waste received into Telford & Wrekin from other authorities in 2019:

WPA	Bedford	Cambridgeshire	Cheshire East	Sandwell	Shropshire	Staffordshire
Tonnes	5,564	12,113	15,036	13,283	132,644	5,696

Table 14 Inert waste sent from Telford & Wrekin to other authorities in 2019:

WPA	Walsall
Tonnes	14,966

Table 15 Non-hazardous waste received into Telford & Wrekin from other authorities in 2019:

WPA	Shropshire
Tonnes	49,624

Table 16 Hazardous waste sent from Telford & Wrekin to other authorities in 2019:

WPA	Sandwell	Staffordshire	Stoke-on-Trent	Walsall	Warwickshire	Wolverhampton	Worcestershire
Tonnes	2,750	625	105	1,587	481	1,042	339
WPA	Derbyshire	Northamptonshire	Cheshire East	Lancashire	Leeds	Salford	Sefton
Tonnes	416	522	185	103	360	446	307

Table 17 Hazardous waste received into Telford & Wrekin from other authorities in 2019:

WPA	Bridgend	Bristol City	Cambridgeshire	Cheshire East	Coventry	Croydon
Tonnes	153	1,239	720	6,612	386	923
WPA	Devon	Essex	Gloucestershire	Hampshire	Hertfordshire	Kirklees
Tonnes	171	525	544	3,628	876	856
WPA	Leeds	Leicestershire	Luton	Norfolk	North Somerset	Northamptonshire
Tonnes	1,432	113	337	493	255	820
WPA	Rochdale	Sandwell	Shropshire	Slough	Staffordshire	Wigan
Tonnes	796	1,428	226	282	238	186

5 Conclusions

The significant quantity of waste recycling and treatment capacity means that the Borough is broadly net self-sufficient in waste management capacity overall, notwithstanding that residual waste thermal treatment facilities are located in neighbouring authorities. The scale at which these facilities are developed means that this is the most economic way of delivering this type of treatment and the quantity of waste arising in Telford & Wrekin would be insufficient to justify investment of this scale in the Borough.

Summary of Non-Hazardous Waste Management Capacity Required

	Annual capacity for capacity gap calculations (tonnes pa)	Maximum Capacity Requirement in 2020/40 (tonnes pa) from	Capacity Gap (tonnes pa)
Organic treatment capacity – anaerobic digestion and composting	21,345	52,800	31,455
Treatment capacity	136,300	61,600	
Transfer capacity	130,000		
Residual recovery capacity	Landfill only	61,600	Sent to EfW
Total non-hazardous waste arisings		176,000	

Notes: Waste water treatment facilities have been taken out of this calculation, since while they provide important treatment capacity for organic wastes, these facilities do not contribute to the management of non-hazardous waste arisings.

Transfer stations carry out a significant amount of separation activity and typically send 30% of their throughput to re-processors. A calculation has therefore been carried out to include 30% of transfer capacity in the treatment category and the remainder in transfer".

Landfill use has reduced significantly and only a nominal amount was sent to Candles Landfill in 2019. The waste arising in Telford & Wrekin that is sent to landfill comprises mainly street cleansing residues.