Tamworth Borough Council: operational carbon emissions update

Producing an annual greenhouse gas (GHG) inventory is a vital step in the council's net zero roadmap. Having a complete inventory allows the council to better understand the main sources of emissions and analyse changes over time. The inventory provides an evidence base from which authority can track and monitor changes, identify emissions reduction possibilities and establish a realistic pathway for achieving its net zero target by 2050.

The first year an emission inventory is compiled is referred to as a baseline year and is used as a reference point for comparison with future years. The baseline represents the total GHG emissions that have occurred within a given year - the baseline year for TBC is the financial year is 2019/20.

In 2019/20, Tamworth Borough Council's emissions were estimated to be **1914 tCO_2e**. The two largest sources of emissions were council waste collection and council housing. Council housing emissions comprise of energy used in communal spaces and sheltered housing but do not include individual households' usage in council houses.

The council is now collecting carbon reporting data annually and this update details operational emissions relating to FY23/24 and FY24/25.

Tamworth Borough Council's GHG inventory, 2023/24

For the financial year 2023/24, Tamworth Borough Council's total GHG emissions (scope 1 and 2, including waste collection emissions) are estimated to be **1591 tCO_2e**.

In 2023/24, the largest sources of emissions were council waste collection which comprised 33% of the total emissions, and council housing which comprised 27% of the total emissions.

Waste data was provided by Lichfield District Council as part of the Joint Waste Partnership and collated for municipal refuse, kerbside recycling and garden waste but there are some gaps for commercial waste. As a result, commercial waste emissions have not been captured in the inventory.

Council housing data comprises only communal area energy use and does not include individual tenants use. Whilst this is a large source of emissions, there are some uncertainties in estimates, due to inconsistencies in data collection.

Marmion House, Tamworth Borough Council's main office, has been separated from the operational buildings to illustrate the scale of emissions from this building.

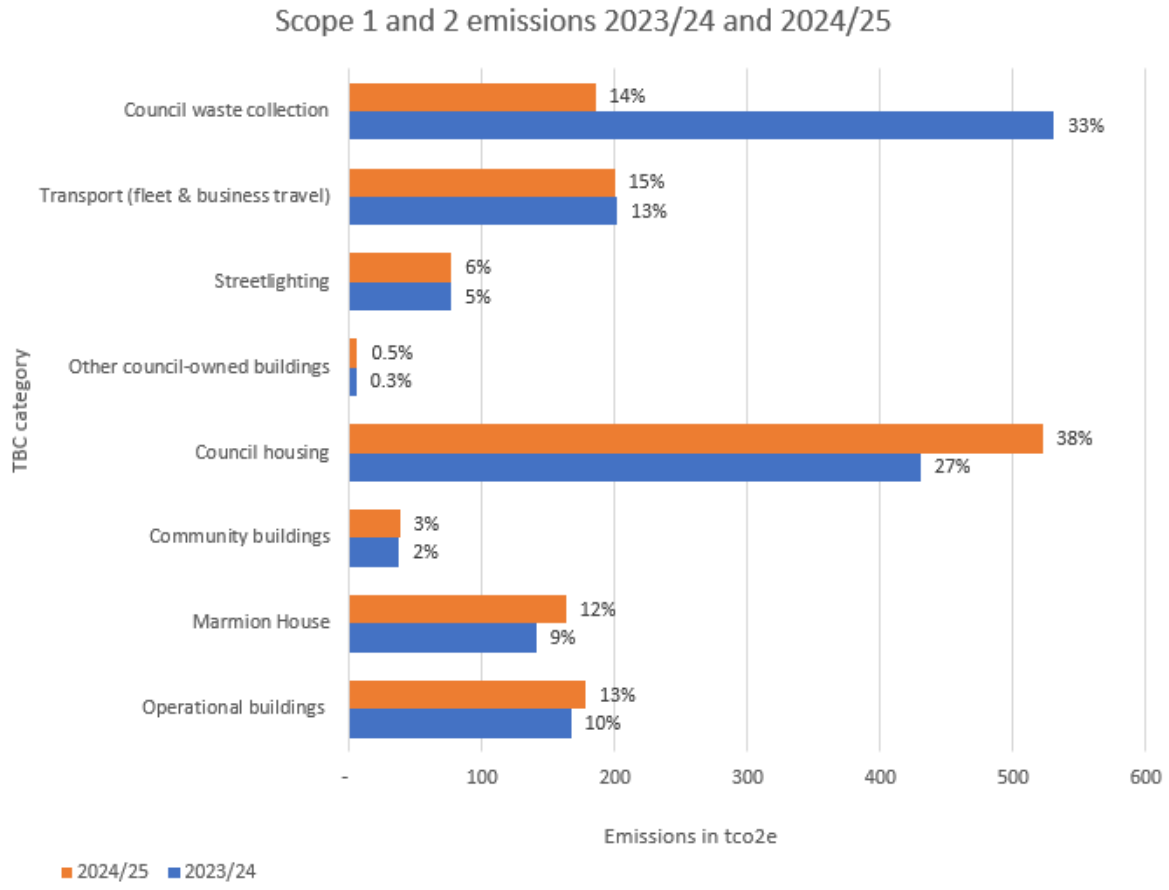
Tamworth Borough Council's GHG inventory, 2024/25

For the financial year 2024/25, Tamworth Borough Council's total GHG emissions are estimated to be **1371 tCO_2e**.

In 2024/25, the largest sources of emissions were council housing which comprised 38% of the total emissions, and council fleet which comprised 15% of the total emissions. This

demonstrates a need to focus on decarbonisation of council housing stock where feasible and affordable.

Estimated total emissions (tCO2e) for Tamworth Borough Council 2023/24 and 2024/25



Operational buildings: Covers the Depot, Town Hall, Assembly Rooms, Castle grounds, museum and gift shop, Castle grounds toilets, Enterprise Centre. Ankerside Shopping Centre energy usage is included in the 2024 data set as TBC took over ownership of this building in December 2024
Whilst it is an operational building, Marmion House is listed separately as the current fuel consumption is high and there is uncertainty around the future use of the building
Community buildings: Covers assets such as Castle Activity Centre, Bright Crescent Community Centre, Anker Valley Sports Pitches, Market displays and lighting, Castle Lodge, OId Swimming Baths, High Rise Social Club, Watling Street changing rooms and the Bingo Hall
Other council owned buildings: Covers cemeteries, Wiggington Lodge store and unmetered electricity supply for floodlights, ticket machines and car park barriers

Category	Sub-category	Coverage	Scope	2023/24	
				Emissions (tCO_2e)	% of total emissions
Council-owned buildings	Operational buildings (electricity)	Town Hall, Assembly Rooms, Depot, Castle, grounds, museum and gift shop, Castle Grounds toilets, Phil Dix/Enterprise Centre	2+3	99	6%
	Operational buildings (gas)	Town Hall, Assembly Rooms, Depot, Castle, grounds, museum and gift shop, Castle Grounds toilets, Phil Dix/Enterprise Centre	1	68	4%
	Marmion House (electricity)	Marmion House	2+3	45	3%
	Marmion House (gas)	Marmion House	1	95	6%
	Community buildings (electricity)	Anker Valley, Castle Activity centre, markets/street displays, St Edithas Market lighting, Castle Lodge, Bingo Hall, Old Swimming Baths, High Rise Social Club (Riverside), Bright Crescent Community Centre, Watling Street Changing Rooms	2+3	28	2%
	Community buildings (gas)	Anker Valley, Castle Activity centre, markets/street displays, St Edithas Market lighting, Castle Lodge, Bingo Hall, Old Swimming Baths, High Rise Social Club (Riverside), Bright Crescent Community Centre, Watling	1	10	1%

Category	Sub-category	Coverage	Scope	2023/24	
				Emissions (tCO_2e)	% of total emissions
		Street Changing Rooms			
Council-owned/run housing: sheltered housing, communal areas of council owned non-sheltered housing (council, private tenants, private owners)	Council Housing (electricity)	Sheltered Housing e.g. Ankermoor Court, Annandale, Bright Crescent, Cheatle Court, and Sunset Close Standard Housing e.g. Arden Close, Stanhope, Masefield	2+3	128	8%
	Council Housing (gas)	Sheltered Housing e.g. Ankermoor Court, Annandale, Cheatle Court, and Sunset Close	1	303	19%
Other council buildings	Other buildings (electricity)	Unmetered electricity supply, ticket machines, car park barriers	2+3	5	0.3%
Streetlighting	Streetlighting	Streetlighting and CCTV	2+3	77	5%
Council travel	Council fleet/grey fleet and Business travel	Council vans, private car and rail use	1	202	12%
Waste	Council waste collection and disposal	Collection and transport of waste to Four Ashes Energy Recovery Facility, recycling facilities, and garden waste facilities	3	531	33%
	Total			**1591**	**100%**

Category	Sub-category	Coverage	Scope	2024/25	
				Emissions (tCO_2e)	% of total emissions
Council-owned buildings	Operational buildings (electricity)	Town Hall, Assembly Rooms, Depot, Castle, grounds, museum and gift shop, Castle Grounds toilets, Phil Dix/Enterprise Centre and Ankerside Shopping Centre	2+3	114	8%
	Operational buildings (gas)	Town Hall, Assembly Rooms, Depot, Castle, grounds, museum and gift shop, Castle Grounds toilets, Phil Dix/Enterprise Centre	1	64	5%
	Marmion House (electricity)	Marmion House	2+3	72	5%
	Marmion House (gas)	Marmion House	1	91	7%
	Community buildings (electricity)	Anker Valley, Castle Activity centre, markets/street displays, St Edithas Market lighting, Castle Lodge, Bingo Hall, Old Swimming Baths, High Rise Social Club (Riverside), Bright Crescent Community Centre, Watling Street Changing Rooms	2+3	30	2%
	Community buildings (gas)	Anker Valley, Castle Activity centre, markets/street displays, St Edithas Market lighting, Castle Lodge, Bingo Hall, Old Swimming Baths, High Rise Social Club (Riverside), Bright	1	8	0.1%

Category	Sub-category	Coverage	Scope	2024/25	
				Emissions (tCO_2e)	% of total emissions
		Crescent Community Centre, Watling Street Changing Rooms			
Council-owned/run housing: sheltered housing, communal areas of council owned non-sheltered housing (council, private tenants, private owners)	Council Housing (electricity)	Sheltered Housing e.g. Ankermoor Court, Annandale, Bright Crescent, Cheatle Court, and Sunset Close Standard Housing e.g. Arden Close, Stanhope, Masefield	2+3	171	12%
	Council Housing (gas)	Sheltered Housing e.g. Ankermoor Court, Annandale, Cheatle Court, and Sunset Close	1	351	26%
Other council buildings	Other buildings (electricity)	Unmetered electricity supply, ticket machines, car park barriers	2+3	5	0.5%
Streetlighting	Streetlighting	Streetlighting and CCTV	2+3	77	6%
Council travel	Council fleet/grey fleet and business travel	Council vans, private car and rail use	1	200	15%
Waste	Council waste collection and disposal	Collection and transport of waste to Four Ashes Energy Recovery Facility, recycling facilities, and garden waste facilities	3	185	14%
	Total			**1371**	**100%**

Emissions related to commuting, procurement, and homeworking

Emissions from procurement, homeworking and commuting are typically not included in GHG inventories for net zero targets and have been excluded from this inventory for two reasons. Firstly, there is limited data for these activities, and secondly, methodologies for estimating these emissions are not yet well established and have high uncertainty.

Therefore, the emissions associated with procurement, homeworking and commuting have been derived through assumptions.

In 2025, TBC commissioned the development of a staff commuting calculation tool to more accurately record emissions from staff travelling to and from Marmion House. These figures will help TBC to understand staff travel patterns and inform low carbon travel policies, for example introducing cycle to work schemes or further incentives to encourage greener methods of commuting.

Estimated emissions from staff commuting for Tamworth Borough Council 2023/24 and 2024/25

Reporting year	Commuting Emissions	
	Emissions (tCO_2e)	% of total emissions
FY23/24	174 tco2	NA
FY24/25	122 tco2	NA

Estimated emissions from procurement and homeworking for Tamworth Borough Council 2023/24 and 2024/25

Category and year	Emissions	
	Emissions (tCO_2e)	% of total emissions
FY23/24: Procurement of other goods and services	Not calculated this year due to data uncertainty, will be backdated in 2025/26 report	NA
FY23/24: Homeworking	104 tCO2e	NA
FY24/25: Procurement of other goods and services	Not calculated this year due to data uncertainty will be backdated in 2025/26 report	NA
FY24/25: Homeworking	110 tCO2e	NA

Methodologies for commuting, procurement, and homeworking emissions

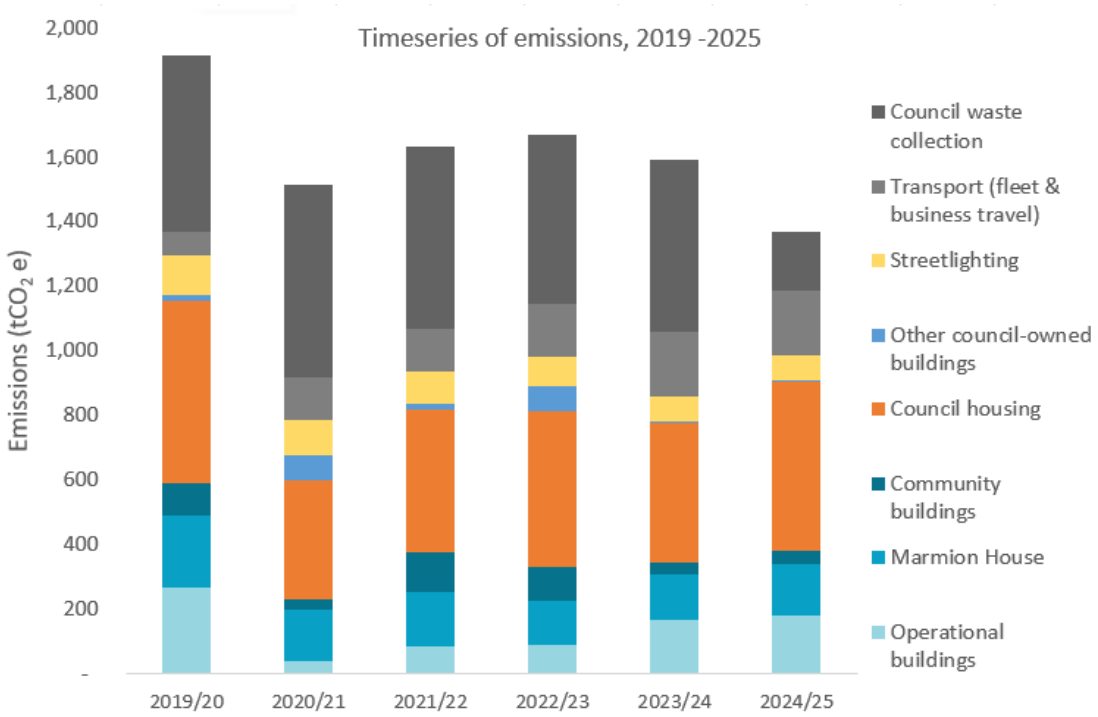
The staff commuting tool emissions calculations are based on assumptions of changing work patterns since 2019. Commuting is assumed to be 2 days a week per employee on average due to hybrid working patterns and working from home (WFH). Emissions are calculated based on distance travelled, from the employees' home location to Tamworth Borough Council's main offices (Marmion House). National travel survey and government conversion

factors are used to assume the mode of transport use such as car, train, bus, cycling or walking, based on the employee's postcode.

For procurement emissions, whilst the council has influence over emissions from this source, it does not have direct control. The figures estimate the scale of procurement emissions. To estimate emissions, calculations were based on factors of carbon intensity per amount spent and applied to the financial accounts' summary. Due to data uncertainty, FY 2023/24 and 2024/25 figures have not been reported this year but will be backdated in the FY 2025/26 report following an in-depth data review with the finance team.

Homeworking emissions were estimated by assuming the number of full-time employees (FTE) who work from home and multiplying that by an emission factor representing the estimated emissions associated per FTE. The emission factor includes assumptions on the mix of heating types used to heat employees' homes, along with average the duration heating is on, how many other people are at home whilst homeworking, and estimated electricity consumption for lighting and IT equipment.

Timeseries of emissions, 2019-2025



Estimated emissions for 2023/24 and 2024/25 have significant uncertainty because of gaps in the data, particularly building energy usage.

The largest individual source of emissions across the time series is council waste collection, which is estimated based on tonnage of waste collected. Emissions from this source are solely due to the transport of waste to the energy from waste facility, recycling centres, and composting sites.

The emissions sources with greatest variations between years are operational buildings, other council-owned buildings and council housing. This is likely a result of a combination of

factors: Covid-19 impacts, energy data uncertainty, reduction in carbon intensity of the electricity grid, and any energy efficiency measures implemented.

The large decrease in waste emissions in 2024/25 can be attributed to a change in the National Governments 2024 GHG emissions factors which are the standard used to calculate the tonnes of carbon emitted.

Assumptions and limitations

For the data collection process, the Climate Change Officer at TBC liaised with relevant officers for each activity area via email and digital meetings. Each officer was asked to provide data in line with clear requirements in a predefined format. The aim was to build upon the initial inventory compiled for the baseline year, 2019/20. The responses and completeness of the data received was tracked - notably, there were inconsistencies in how the data has been reported, affecting data quality.

Data collection process data gaps/assumptions and measures for improvement

Data collected	Data gaps/assumptions	Plan for improvement in 2026
Council-owned domestic buildings	Potential inaccuracies in recorded data due to a lack of accurate meter readings and record keeping	Installation of energy monitoring systems in selected assets to be investigated in 2026 to improve data tracking and recording
Council-owned non-domestic buildings	Potential inaccuracies in recorded data due to a lack of accurate meter readings and record keeping	Installation of energy monitoring systems in selected assets to be investigated in 2026 to improve data tracking and recording
Fleet vehicles Green spaces and machinery	Assumed no data gaps. Mowers and tractors combined with mechanical sweepers and mechanical plant data is diesel, some ride on mowers and green spaces machinery are petrol and now electric	Some machinery switched to electric which will reduce fuel emissions going forwards and the electricity usage data will be captured in 2026. Climate change officer to work with Street Scene team to improve process of

Data collected	Data gaps/assumptions	Plan for improvement in 2026
		capturing most accurate fuel data
Waste	Assumed no gaps. Data on fuel consumption would significantly improve the confidence in the estimate. Data received from Lichfield as part of the Joint Waste Partnership	Continue to work with Lichfield and the Waste Officers to optimise waste collection and reduce emissions and accurately record this data
Business travel	Transport expenses not split by transport mode, so assumption made on rail/bus/taxi split	Work with HR to improve process of data collection such as a quarterly report on travel expenses split into clear categories
Streetlighting and CCTV	Assumed unmetered supply covers streetlighting and CCTV. Uncertainty around what lighting these figures cover and the proportion of streetlighting owned by TBV vs County. LED lighting upgrade underway.	Obtain data on streetlighting owned by TBC and the progress of the LED lighting upgrades
Procurement (scope 3)	Data provided not clear and results inconsistent with previous annual calculations. Further investigation needed to ensure data accuracy; therefore, emissions figures not published in this year's report.	Review procurement spend data with finance team to identify what is classed as 'goods and services' and improve data collection process

Going into FY 2025/26 work will commence to improve data capture, recording processes, and organisational understanding of the carbon reporting process and why it is important. This can be achieved in the following ways:

- Allocate resources to support data collection
- Assign responsibilities for data collection within the council e.g. the internal climate action working group
- Establish clear data collection procedures e.g. timescales, documentation.

This will help TBC to implement the Greenhouse Gas Protocol Accounting and Reporting principles of relevance, completeness, consistency, transparency and accuracy. These

rigorous standards facilitate effective goal setting and tracking of progress against the net zero roadmap.