

Tunbridge Wells Borough Council

# Emissions Report: 2020/2021

---

Published: 25 November 2024



# Table of contents

1. Summary.....	3
2. Scope emissions.....	3
3. Emissions overview (tCO <sub>2e</sub> ).....	3
4. Emissions breakdown .....	4
5. Company information .....	6
6. Reporting period.....	6
7. Emissions overview.....	6
7.1. Scope 1 .....	6
7.2. Scope 2 .....	6
7.3. Scope 3 .....	6
7.4. Out of scope .....	7
7.5. Significant emissions & consumption changes .....	8
7.6. Largest emitting sources .....	9
8. Measuring and reporting .....	9
9. Scope explanation.....	9
10. Organisational boundary .....	11
11. Geographical breakdown .....	11
12. Base year.....	11
13. Base year recalculation policy .....	11
14. Emissions target .....	12
15. Intensity measurement .....	12
16. External assurance statement .....	12
17. Carbon offsetting .....	12
18. Renewable tariffs .....	13
19. Background documents .....	13
20. Annex 1: Emissions trend from base year .....	13
21. Annex 2: Version control.....	15

# 1. Summary

Tunbridge Wells Borough Council (TWBC) publishes an annual emissions report detailing the total carbon dioxide equivalent (tCO<sub>2e</sub>)<sup>1</sup> produced from its operations in the previous financial year. These reports gather consumption data from various activities and apply relevant emissions factors, allowing the council to consistently monitor its emissions over time and evaluate progress toward its 2030 net zero target.

All TWBC emissions reports follow the Greenhouse Gas Protocol's Corporate Accounting and Reporting Standard, using official greenhouse gas conversion factors provided by the Department of Energy Security and Net Zero (DESNZ).

In the 2023/24 financial year, TWBC's emissions were **3,706.9 tCO<sub>2e</sub>**.

## 2. Scope emissions

The following section provides an overview of TWBC's emissions scopes:

**Scope 1 (Direct):** Gas consumption, stationary combustion fuels, and TWBC vehicle fleet.

**Scope 2 (Indirect):** Electricity consumption.

**Scope 3 (Indirect):** Transmission and distribution losses, water supply, water treatment, business travel, staff commuting, well to tank<sup>2</sup>, leisure centre contract, refuse and street cleaning contract and grounds maintenance contract.

## 3. Emissions overview (tCO<sub>2e</sub>)

Emissions year	2018/19	2019/20	2020/21
Scope 1	909.7	886.0	726.6
Scope 2	2,308.5	1704.7	871.1
Scope 3	3,414.5	3235.5	2109.3
<b>Total net emissions</b>	<b>6,632.7</b>	<b>5,826.2</b>	<b>3,706.9</b>

<sup>1</sup> **Carbon Dioxide Equivalent (CO<sub>2e</sub>)** = Carbon Dioxide, Methane and Nitrous Oxide represented as one equivalent unit, to measure the climate change impact of multiple gasses under one metric.

<sup>2</sup> **Well to tank (WTT)** = The extraction, refinement and transportation of raw materials.

## 4. Emissions breakdown

Operation	Scope	Emissions Category	tCO <sub>2</sub> e
TWBC Own Operations	Scope 1	Gas	708.8
TWBC Own Operations	Scope 1	Biomass	0.5
TWBC Own Operations	Scope 1	Biodiesel	0.0
TWBC Own Operations	Scope 1	Propane	0.0
TWBC Own Operations	Scope 1	Vehicle Fleet Fuel	17.4
TWBC Own Operations	Scope 2	Electricity Consumption	871.1
TWBC Own Operations	Scope 3	Transmission & Distribution Losses	74.9
TWBC Own Operations	Scope 3	Water Supply	6.7
TWBC Own Operations	Scope 3	Water Treatment	12.6
TWBC Own Operations	Scope 3	Grey Fleet Mileage	59.1
TWBC Own Operations	Scope 3	Commuting	-
TWBC Own Operations	Scope 3	Well To Tank - Gas	92.2
TWBC Own Operations	Scope 3	Well To Tank - Electricity	130.6
TWBC Own Operations	Scope 3	Well To Tank - Biomass	0.3
TWBC Own Operations	Scope 3	Well To Tank - Biodiesel	0.0
TWBC Own Operations	Scope 3	Well To Tank - Fuel	4.4

Operation	Scope	Emissions Category	tCO <sub>2</sub> e
TWBC Own Operations	Scope 3	Well To Tank - Grey Fleet	15.5
TWBC Own Operations	Scope 3	Well To Tank - Commuting	0.0
TWBC Own Operations	Scope 3	Waste Disposal	1.8
TWBC Contract	Scope 3	Waste Collection & Street Cleaning	1,120.3
TWBC Contract	Scope 3	Grounds Maintenance	156.7
TWBC Contract	Scope 3	Leisure Centre	434.3
<b>Total Gross Emissions</b>	<b>N/A</b>	<b>N/A</b>	<b>3,706.9</b>

Operation	Scope	Emissions Category	tCO <sub>2</sub> e
TWBC Own Operations	Out of Scope	Biomass	3.0
TWBC Own Operations	Out of Scope	Biodiesel	-
TWBC Own Operations	Out of Scope	Vehicle Fleet	0.7
TWBC Own Operations	Out of Scope	Electricity	-
TWBC Contract	Out of Scope	Contractor Fuel Use	39.4
TWBC Contract	Out of Scope	Contractor Fuel Use	5.3
TWBC Contract	Out of Scope	Electricity	-
<b>Total Gross Emissions</b>	<b>N/A</b>	<b>N/A</b>	<b>48.3</b>

## 5. Company information

The Tunbridge Wells Borough Council is a local authority located in Kent, within the Southeast of England.

## 6. Reporting period

This reporting period is from 01/04/2020 to 31/03/2021.

## 7. Emissions overview

### 7.1. Scope 1

Scope 1 emissions totalled **726.6 tCO<sub>2</sub>e** at the end of the 2020/21 financial year, 18% down from the previous year and 20.1% lower than base-year.

As seen in figure 1 (below), scope 1 is the smallest contributor to overall emissions, accounting for only 20%.

### 7.2. Scope 2

Scope 2 emissions totalled **871.1 tCO<sub>2</sub>e**, 48.9% down from the previous year.

Electricity is the sole source of emissions in scope 2. There was a 50.3% reduction in emissions from the previous year, and a 63.5% drop from the base-year. This is the largest recorded reduction from base-year emissions across all scopes.

Scope 2 only accounted for 3% more to the total emissions than scope 1, which is the closest these scopes have been over the last two years.

### 7.3. Scope 3

Scope 3 emissions came to a total of **2,109.3 tCO<sub>2</sub>e** in 2020/21, 34.8% down from the previous year.

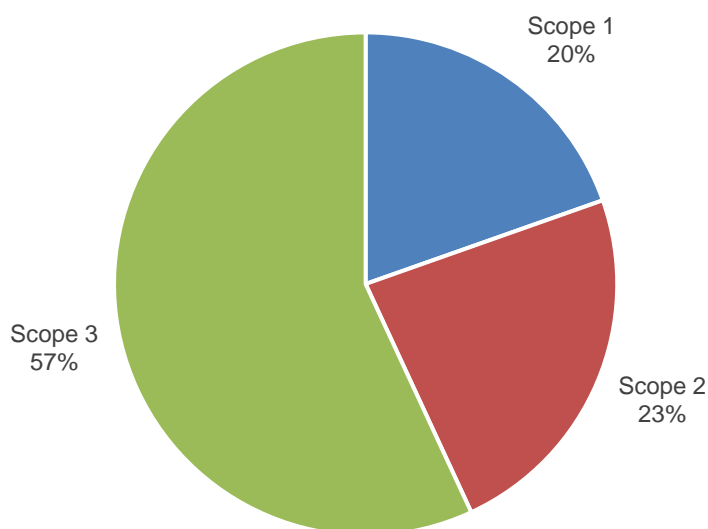
A reduction of 34.8% was observed from the previous year, and a 38.2% drop from the 2018/19 base-year.

This scope is the largest emitter of the three (figure 1), notably due to the inclusion of the three largest council contracts (waste collection & street cleaning, leisure centres, and grounds maintenance), which are the top 3 sources (contributing 30%, 11.7%, and 4.2%, respectively).

Only small changes were observed across the waste and grounds maintenance contracts, however the leisure centres saw a 63.4% reduction in emissions. This is due to the closures to many leisure facilities during the COVID-19 lockdowns and subsequent fall in their gas (-64.4%) and electricity consumption (-65.7%).

Transmission & distribution losses were considerably lower (-48%) than the previous year, linking back to how less electricity and power was consumed across TWBC assets. Electricity well to tank emissions were 49.3% lower, coinciding with the related scope 2 reduction in electricity consumption and generation.

Figure 1: TWBC Emissions Scope Contribution 2020/21



## 7.4. Out of scope

TWBC is now highlighting its out of scope emissions, given the use of biofuel across the estate. This is now included to ensure that we align with best practise reporting, as detailed by the Greenhouse Gas Protocol. The Department for Energy Security and Net Zero (DESNZ) define out of scope emissions as:

*“Outside of scopes includes biogenic CO<sub>2</sub> factors that should be used to account for the direct carbon dioxide (CO<sub>2</sub>) impact of burning biomass and biofuels, including when reporting emissions from electricity consumption. Biogenic CO<sub>2</sub> emissions are one of several activities labelled ‘outside of scopes’ by the GHG Protocol Corporate Accounting and Reporting Standard because the Scope 1 impact of these fuels has been*

*determined to be a net '0' (since the fuel source itself absorbs an equivalent amount of CO<sub>2</sub> during the growth phase as the amount of CO<sub>2</sub> released through combustion)."*

Out of scope emissions totalled at **48.3 tCO<sub>2</sub>e** in 2020/21. This is an increase of 4.1%.

The biggest change in consumption was seen in a 27,666 litres reduction in diesel usage for stationary combustion fuels. This caused the emissions to hit 0.0 in 2020/21.

There was a 22.0% increase in the emissions from our waste collection & street cleaning contract. This was caused by a 0.024 increase in the emissions factor for diesel fuel even though consumption levels decreased. Similarly to the previous year, electricity consumption fell by 2.9 million kWh, but due to there being no emissions factor, the overall emissions remained at 0.0. There was a 9,420 litre reduction in fuel consumption from the grounds maintenance contract, but due to the increase in two out of the three associated emissions factors, the emissions increased.

## 7.5. Significant emissions & consumption changes

Tunbridge Wells Borough Council (TWBC) emissions decreased by 36.4% compared to the previous financial year and 44.1% since 2018/19. Emissions reached an all-time low of 3,706.9 tCO<sub>2</sub>e in 2020/21. The most substantial reductions were attributed to changes in leisure centre emissions, due to the facilities not being used for a significant portion of 2020/21. Additionally, there were no increases across any emission categories, reflecting effective management and control of emission sources, but most significantly the COVID-19 pandemic.

Breaking emissions down into their scope contributions (figure 1), Scope 3 emissions, which include indirect emissions from supply chains and services, remained consistent with the previous year, showing no significant change. Scope 2 emissions, derived from purchased electricity, now contributes 6% less to overall emissions, due to enhanced energy efficiency efforts. The largest influence came from the COVID-19 lockdowns, which led to a shift to remote work. With offices largely unused, electricity consumption dropped by 2.93 million kWh, a significant reduction of 45.5%.

For Scope 1 emissions, the reductions were driven primarily by a 100% elimination of diesel fuel usage in TWBC operations, as diesel was no longer used for stationary combustion. The council fleet was also utilised less frequently during the pandemic, further decreasing fuel emissions. Gas consumption fell by over 400,000 kWh, contributing further to the reductions.

Overall, energy consumption trends showed sharp declines in electricity and gas usage, both of which were significantly influenced by the pandemic. Electricity usage dropped by 44%, while gas usage decreased by a more moderate 10%.



## 7.6. Largest emitting sources

Emissions Category	Emissions Scope	tCO <sub>2</sub> e	Total Contribution	Change from 2019/20
Waste collection & street cleaning contract	Scope 3	1,120.3	30.2 %	- 7.0 %
Electricity consumption	Scope 2	871.1	23.5 %	- 62.3 %
Gas consumption	Scope 1	708.8	19.1 %	- 14.7 %
Leisure centre contract	Scope 3	434.3	11.7 %	- 66.1 %
Grounds maintenance contract	Scope 3	156.7	4.2 %	+ 44.5 %

TWBC emissions from the above top 5 direct sources contributed 88.1% to all total emissions in 2020/21.

## 8. Measuring and reporting

Reporting on TWBC emissions take place annually, following the [Greenhouse Gas Protocol: Corporate Accounting and Reporting Standard](#).

This emissions report will be reported to Management Board, and subsequently taken through any appropriate Advisory Panel, Cabinet Advisory Board and Cabinet.

## 9. Scope explanation

Scope	Activity	Description	Data Source
Scope 1	Gas Consumption	Utilised to heat TWBC buildings.	TWBC utility bills.
Scope 1	Stationary Combustion Fuels	Used as a form of energy, such as wood pellets or diesel for electricity generators.	TWBC invoices.
Scope 1	Vehicle Fleet Fuel	Vehicle fleet owned and operated by TWBC.	TWBC fuel invoices.

Scope	Activity	Description	Data Source
Scope 2	Electricity Consumption	Procured from the national grid to power TWBC buildings and assets	TWBC utility bills.
Scope 3	Transmission & Distribution Losses	Loss of electricity from the national grid to TWBC sites and assets.	TWBC utility bills.
Scope 3	Water Supply	Water consumed by TWBC.	TWBC utility bills.
Scope 3	Water Treatment	TWBC sewerage.	TWBC utility bills.
Scope 3	Grey Fleet Mileage	Mileage driven by TWBC employees using their own vehicles for work purposes.	TWBC employee mileage claims.
Scope 3	Commuting	Mileage from employees travelling to and from TWBC offices.	Staff commuting data from surveys.
Scope 3	Well To Tank (WTT)	Emissions and energy associated with the extraction, processing, and transportation fuel.	TWBC utility bills.
Scope 3	Waste	Generation of food, plastic, and recyclable waste by TWBC.	TWBC invoices.
Scope 3	Waste Collection & Street Cleaning Contract	Fuel consumption from TWBC's contract to provide public waste collection & street cleaning services.	Contract management.
Scope 3	Grounds Maintenance Contract	Fuel use and waste disposal from TWBC's contract to maintaining green spaces across the borough.	Contract management.
Scope 3	Leisure Centre Contract	Energy use during the operation of all TWBC owned, but independently managed leisure facilities.	Contract management.

No data has been collected for commuting and therefore no emissions are accounted for, or the subsequent well to tank either. This is something that TWBC looks to include in the future.

## 10. Organisational boundary

TWBC's organisational boundary covers activities in which the organisation has financial and operational control, covering the duties and powers of the local authority. As such, the organisational boundary covers all operations and outsources activities.

## 11. Geographical breakdown

All TWBC activities occur within the Tunbridge Wells District, excluding some staff and member business travel and commuting activities.

## 12. Base year

TWBC's base year is 01/04/2018 – 31/03/2019.

## 13. Base year recalculation policy

The base year of 2018/19 is recalculated whenever significant structural changes occur within the council's operations. Additionally, if these changes lead to an increase in emissions of 10% or more compared to Tunbridge Wells Borough Council's (TWBC) base year emissions, a recalculation is triggered.

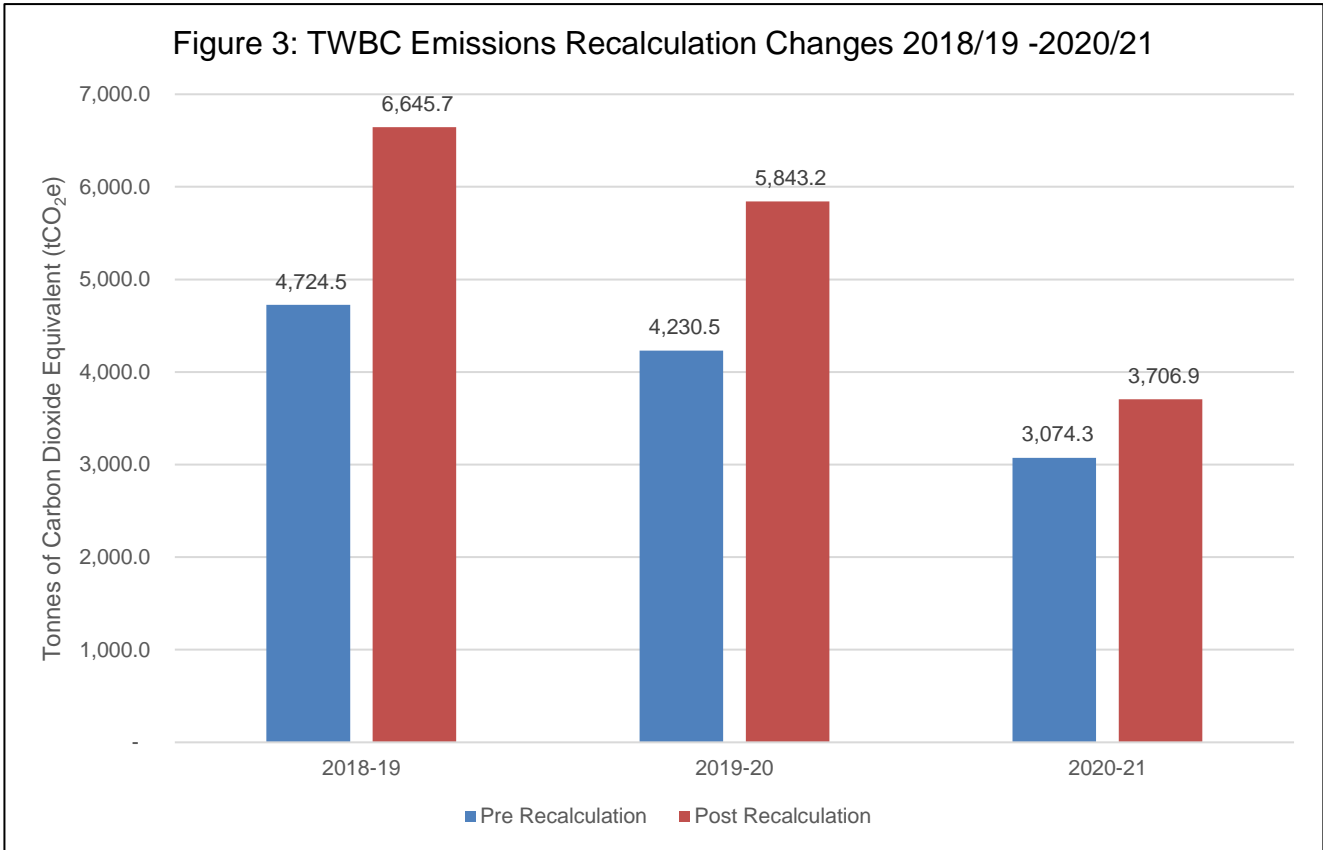
If there is insufficient data for a recalculation, the next most appropriate year will be selected. Following the council's acquisition of the Royal Victoria Place Shopping Centre in 2023 and the renovation and acquisition of the Amelia Scott building in 2022, the base year emissions and all previous emissions reports have been recalculated.

The recalculated base year emissions for 2018/19 are now 6,632.7 tCO<sub>2</sub>e, up from the earlier figure of 4,724.5 tCO<sub>2</sub>e.

The observed increases from this recalculation are as follows:

- A 41% increase in 2018/19 emissions (1,921.2 tCO<sub>2</sub>e).
- A 38% increase in 2019/20 emissions (1,612.6 tCO<sub>2</sub>e).
- A 21% increase in 2020/21 emissions (632.6 tCO<sub>2</sub>e)

The above changes to emissions are highlighted in figure 3 below:



## 14. Emissions target

TWBC's net zero target for its operations is 2030.

## 15. Intensity measurement

TWBC's intensity measurement is 11.8 tCO<sub>2</sub>e per employee.

## 16. External assurance statement

No external assurance has been carried out.

## 17. Carbon offsetting

TWBC has not engaged in any carbon offsetting schemes, including the direct purchase of carbon credits.

## 18. Renewable tariffs

TWBC is not on a renewable energy tariff for its owned and operated assets. Energy is purchased through Npower, who disclose that 30.7% of their energy came from renewables in 2019/20 (as of 14/11/2024). However, there is no guarantee that this translates to TWBC's energy consumption. TWBC is not on a renewable energy guarantee of origin (REGO) backed tariff.

Royal Victoria Place electricity is purchased through Total Energies renewable power tariff. This is a REGO backed tariff, whereby excess REGOs are purchased to essentially 'offset' the 47% of their energy that comes from coal and gas. These REGOs aren't reflected in our emissions reporting as there is limited, concrete evidence that the purchase of REGOs results in direct emissions reductions or increases in UK renewable generation.

For the above reasons TWBC uses the location-based approach to report on emissions associated with electricity consumption. This approach uses the UK average electricity factor to determine TWBC emissions from electricity consumption. We will continue to review this approach on an annual basis and will conduct recalculations where appropriate.

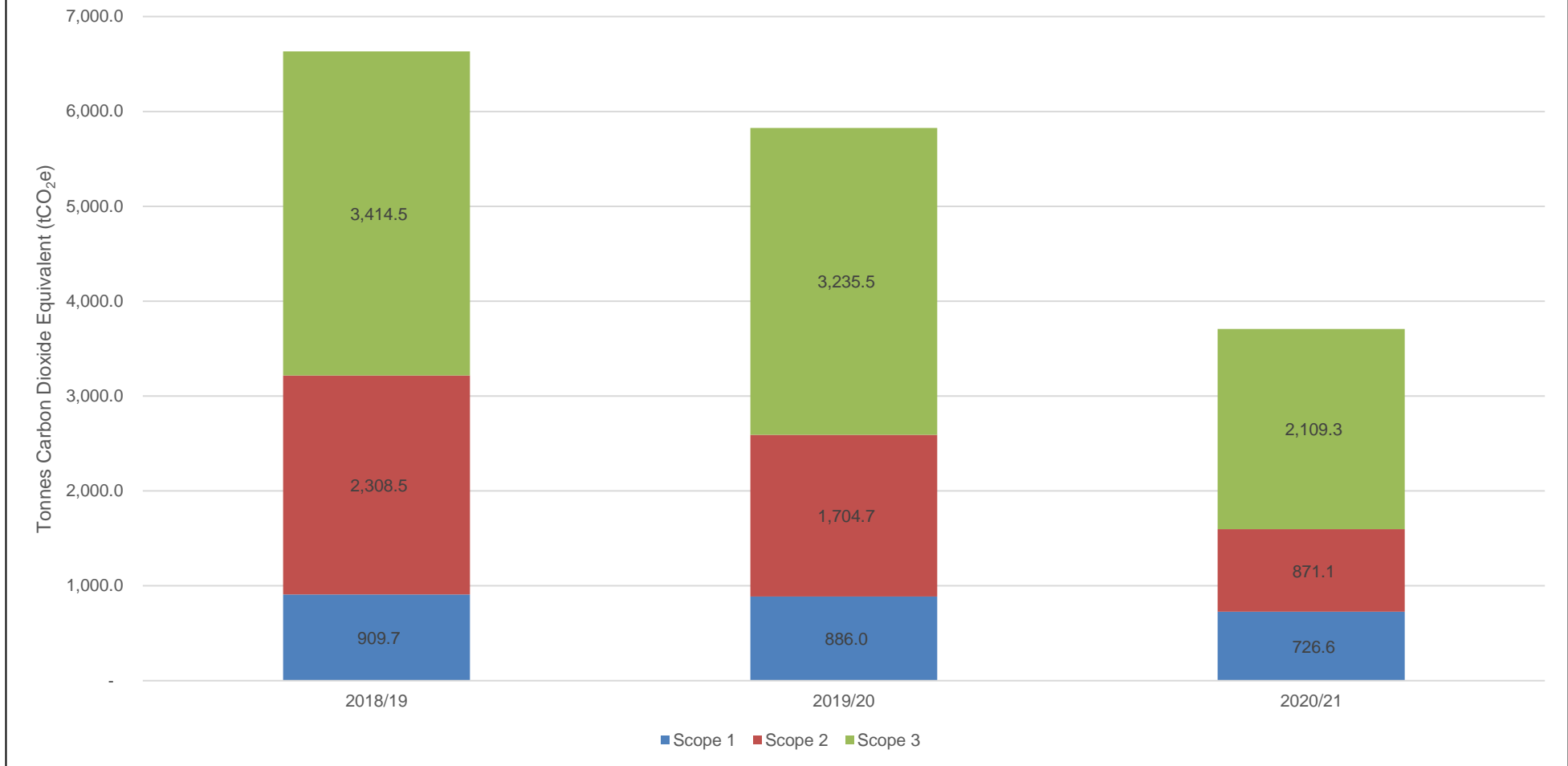
## 19. Background documents

- [Greenhouse Gas Protocol: Corporate Accounting and Reporting Standard](#)
- [UK Government: Greenhouse Gas Reporting Conversion Factors 2020](#)

## 20. Annex 1: Emissions trend from base year

Figure 4 on page 14 provides an overview of how Tunbridge Wells Borough Council emissions have changed since the 2018/19 base year.

Figure 4: TWBC Emissions Trend 2018/19 - 2020/21



## 21. Annex 2: Version control

<b>Document Name</b>	Emissions Report: 2020/2021
<b>Responsible Officer</b>	Henry Saunders, Sustainability Manager

<b>Version Number</b>	<b>Reason for Review</b>	<b>Author(s)</b>	<b>Date</b>
1.0	First Version.	H. Saunders, Sustainability Manager.	25.07.2024
2.0	Recalculation.	H. Saunders, Sustainability Manager. J. Berry. Graduate Climate Change Officer.	25.11.2024