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Sustainability West Midlands

Sustainability West Midlands

Environmental Impact Report

April 2023 – March 2025

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Sustainability West Midlands

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Project Manager: Louis March-Smith

Report Author: Jack Bradbury, Louis March-Smith

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About Sustainability West Midlands

SWM was established in 2002 as an independent, not-for-profit company with the mission of making the West Midlands more sustainable, fairer and greener for everyone.

Our vision is that the West Midlands is leading in contributing to the national target of net zero greenhouse gas emissions by 2050 whilst addressing health inequality and driving inclusive growth. We monitor the [West Midlands Sustainability 2030 Roadmap](#) which acts as a framework that all organisations based or operating in the region can use to help them make changes to their activities in the knowledge that they will contribute to wider regional ambition.

SWM supports our [members](#) and other local stakeholders in the public, private and third sectors to implement these changes by enabling them to demonstrate innovation and leadership and provide opportunities to collaborate and celebrate success.

www.sustainabilitywestmidlands.org.uk

Registered company No.04390508

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1. Introduction

This Environmental Impact Report aims to measure and present data regarding the carbon footprint of Sustainability West Midlands (SWM) in the financial years 2023-24 and 2024-25, with reference to data from previous years. Only the carbon footprint of SWM is examined in this report, with business travel and office emissions being the key considerations. The carbon footprint of the website is also something that SWM intends to reduce; this report outlines ways in which this can be achieved, while reflecting on previous recommendations given to reduce our overall carbon footprint and assessing whether these have been effectively implemented. A lack of available data on certain environmental impacts such as water use and waste mean these issues have not been included. Due to the shared nature of SWM's office space (see section 3. Methodology), taking measurements regarding these topics is extremely difficult, and the small size of the team at SWM means that the data would not show a significant environmental impact from water use and waste.

Whilst SWM is not legally required to produce an Environmental Impact Report, we have chosen to do so to demonstrate leadership and set an example of best practice. Measuring or estimating our emission streams gives us a greater understanding of our environmental impact and allows us to make informed decisions on how to reduce this. For some emission streams, despite the methodology requiring some estimation, this offers a practical starting point and gives us a baseline for future monitoring. We hope that this report can act as a useful template and source of inspiration for other small and medium-sized organisations considering similar assessments.

2. Executive summary

- **Overall emissions fell** from 1,056.81 kgCO₂e in 2023/24 to 973.01 kgCO₂e in 2024/25, a decrease of 7.92% between the two financial years.
- **Business travel accounts for the greatest source of CO₂ emissions**, at 73% of total emissions across the two years.
- Office administration and website emissions make up the remainder of SWM emissions, at 12% and 14% respectively.
- Office administration emissions are significantly lower than previous reports due to a change in methodology and should not be compared. **Only devices used by SWM in the office are analysed** in this report.
- **Emissions from the website relatively are high**, predominantly due to high carbon production from visits to the homepage. This is an issue already being addressed as a result of analysis for this report, and future data on website emissions are expected to be much lower than in this report.
- 2024/25 saw a **33.91% reduction in distance travelled by cars** than the previous year, with a heavier reliance on trains for longer journeys, as well as a noticeable increase in distance travelled by cycling. This contributed to **a decrease in total business travel emissions** despite a 32.56% increase in the overall distance travelled.
- Excluding 2020/21 in which travel was uniquely impacted by the COVID-19 pandemic, **2024/25 is the first year in which business travel emissions dropped**, highlighting the positive efforts by SWM to increase the use of more sustainable travel methods.
- Many previous recommendations have been implemented to help reduce emissions, mainly from travel. Recommendations for the future include a repeated emphasis on reducing car mileage, a potential shift of vehicle type, as well as improvements to methodologies that can increase the accuracy of data presented in future reports.

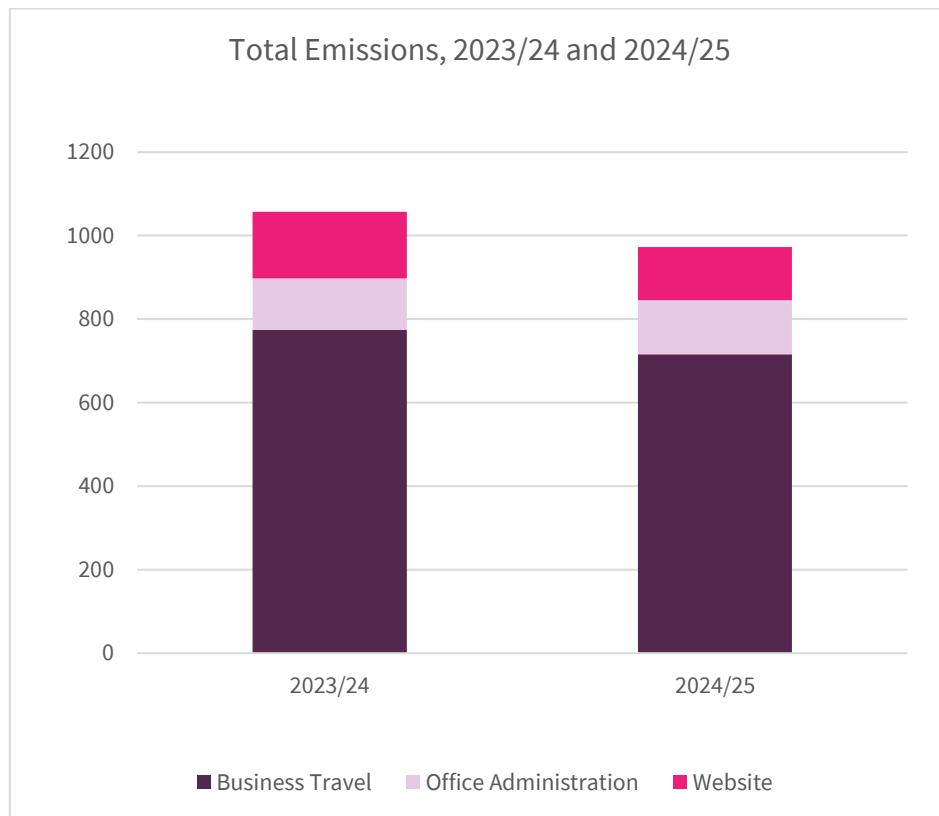


Figure 1. Total emissions produced by SWM for 2023/24 and 2024/25.

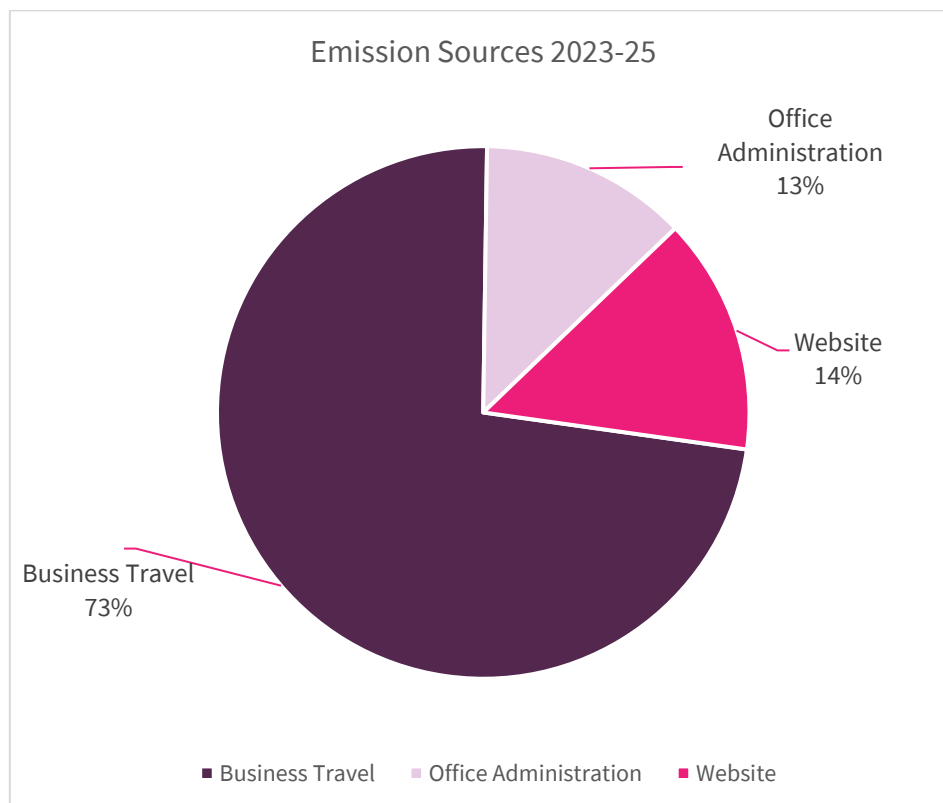


Figure 2. Breakdown of total emissions produced by SWM in 2023/24 and 2024/25.

3. Methodology

Business travel emissions were measured using staff expenses claim forms for each month of the year. Within these forms, staff members note the date of any business travel completed (not including commuting to the office), the mode of transport used, estimated mileage and the cost of the journey. The Department for Energy Security and Net Zero (DESNZ) and Department for Environment, Food and Rural Affairs (DEFRA) have published conversion factors that can be used to calculate estimated carbon emissions from distance travelled and mode of transport. Staff journeys can therefore be categorised by mode of travel, then by using the distance travelled in combination with DESNZ's and DEFRA's conversion factors, greenhouse gas (GHG) emissions per journey (kgCO₂e) can be measured and compared. Emissions from commuting to the office are not included.

Office administration emissions are difficult to measure as reliably as business travel emissions, largely due to the shared nature of the building in which SWM's office is situated. In previous reports, there has been available data on total emissions of this space, however there is no longer access to these figures. For this reason, measuring certain emitting factors is not possible; lighting and heating are communal resources that cannot be attributed to SWM's use due to a lack of access to data on the total emissions of the building and the activity of individual companies within. Therefore, a methodology was used to calculate emissions from an individual level within staff members of SWM, focusing on emissions from devices such as laptops and monitors. A survey was sent out to staff members regarding their device usage in the office space, as well as the use of other technology in the building such as printers. Totalling up emissions (using conversion factors provided by DESNZ and DEFRA) from all devices gave an estimate of total emissions, while any absent staff member responses were accounted for by creating an average emissions per person from the available responses and multiplying this number by the number of missing responses. However, the survey does not consider absences due to illness, the addition of short-term volunteers and staff, and any other temporary changes to the office. This method also assumes the responses to the survey are true over the entire period examined in this report, which is unlikely to be accurate and shows that this methodology has weaknesses. Data for printing was provided through a spreadsheet showing the number of sheets printed each month, split into categories of coloured, black or white, that could then be used to estimate electricity usage and emissions across the examined time period. Section 9. 'STEAMhouse' discusses the credentials and activities of the building in which SWM's office is situated.

Website emissions were measured through the use of <https://www.websitecarbon.com/> where emissions (grams of CO₂ produced per visit) of each page found on SWM's website can be measured individually. Reports on visitors to the website each month provided data for total views to the homepage and the three other most visited web pages. Due to the abundance of subpages on the website, a randomly selected sample of subpages was taken and averaged to estimate emissions for the rest of the website, labelled 'other pages' in Tables 5 and 6. For months without available data on website visitors, a figure for average sessions and average pages per session across the reported months were multiplied together, then by the number of missing months to form an estimate.

4. Scope of this Report

The [Companies Act 2006](#) (Strategic Report and Directors' Reports) Regulations 2013 requires quoted companies to report on their GHG emissions. Small or medium-sized enterprises (SMEs) such as SWM are not legally required to report their emissions, but it is considered good practice to monitor and assess them. The regulations distinguish between three 'scopes' of emissions:

- **Scope 1: (Direct Emissions).** Emissions from activities owned or controlled by your organisation that release emissions into the atmosphere. This includes emissions from combustion from owned or controlled boilers, furnaces or vehicles. It is mandatory that they are reported for quoted companies.
- **Scope 2: (Energy Indirect).** Emissions released into the atmosphere associated with your consumption of purchased electricity, heat, steam or cooling. These are indirect emissions that are consequences of your organisation's activities but are from sources you do not own or control. They are also subject to mandatory reporting for quoted companies.
- **Scope 3: (Other Indirect).** Emissions that are consequences of your organisation's activities but are from sources you do not own or control and do not fall under scope 2. For example, business travel, waste disposal and purchased materials. Scope 3 emissions are usually reported by businesses on a voluntary basis.

Although this is a voluntary report, it will follow the scopes outlined in the regulations above. The reporting included in this report can be split into these three scopes as follows:

- **Scope 1:** This report has been unable to calculate or estimate any scope 1 emissions for SWM.
- **Scope 2:** Emissions related to generating electricity for SWM's office space. This report will include emissions produced by devices in the office, including printing.
- **Scope 3:** Emissions related to business travel for employees and emissions produced by the website. This does not include emissions as a result of regular day to day commuting or emissions arising from third parties travelling to meetings.

5. Results: Business travel emissions

- **Business travel accounts for the largest proportion of emissions for SWM** over both financial years 2023/24 and 2024/25.
- Emissions generally correlate with distance travelled, with an overall trend of increasing distance travelled and emissions since 2011. A key factor in this increase is likely the increase in staff numbers, particularly since 2022, reflected in a 164.42% increase from 2022/23 to 2023/24, and a further 32.57% increase from 2023/24 to 2024/25. The increase in emissions and distance travelled is less significant when looking at values per staff member rather than the company as a whole.
- Due to the notably high carbon footprint of cars compared to trains, particularly for long journeys, many years have seen a lower distance travelled by cars and taxis than trains but higher emissions from this mode of transport. In 2023/24, 78% of business travel emissions were from cars and taxis despite around 1,000 more kilometres being travelled by train.
- In the past two years (2023/24 to 2024/25), there has been a noticeable shift to less emitting travel options, with a 33.91% decrease in distance travelled by cars and taxis, and a 76.53% increase in distance travelled by train. This means that, even with 2,694.13 more kilometres travelled in 2024/25 than 2023/24, emissions from business travel have dropped by 7.54%.
- A 78.71% increase in distance travelled by cycling between 2023/24 and 2024/25 highlights the improvement in use of active travel, particularly when completing short journeys.
- Bus travel only accounted for 1.1% (90.93km) of distance and 1.27% of emissions in 2023/24, and although an increase of bus travel occurred in 2024/25 to 2.79% (306.42km) of distance travelled and 4.64% of travel emissions, environmental impact from SWM bus travel remains minor. Uses of bus are refined to short journeys, predominantly under 5km, so greater issues related to business travel emissions are around long journeys that require trains or cars.
- Flights are inevitably the most influential in terms of travel distance and consequent emissions, as clearly seen in Figures 5, 6 and 7. However, due to flights being a rare occurrence for SWM, distance and emissions from cars and trains are the key focus in these longer-term trends.
- Excluding the reduction in emissions across all business travel due to travel restrictions during the COVID-19 pandemic, 2024/25 is the first year since 2019/20 where car travel was reduced. Train travel continues to increase since 2020/21.

Table 1. Travel breakdown for 2023/24 by distance, emissions, cost, and emissions/£

Transport Mode	Estimated Distance (km)	CO ₂ Emissions (KgCO ₂ e)	Total Cost (£)	KgCO ₂ e/£
Bus	90.93	9.86	34.00	0.29
Car & Taxi	3,431.28	603.71	1,181.96	0.51
Cycle	223.70	0.0	27.48	0.0
Train	4,528.97	160.60	648.98	0.25
TOTAL	8,274.87	774.17	1,892.42	N/A

Table 2. Travel breakdown for 2024/25 by distance, emissions, cost and emissions/£

Type of Journey	Estimated Distance (Km)	CO ₂ Emissions (KgCO ₂ e)	Total Cost (£)	KgCO ₂ e/£
Bus	306.42	9.86	96.53	0.34
Car & Taxi	2,267.70	399.10	790.92	0.50
Cycle	399.76	0.0	49.68	0.0
Train	7,995.12	283.51	1,073.11	0.26
TOTAL	10,969.00	715.82	2,010.24	N/A

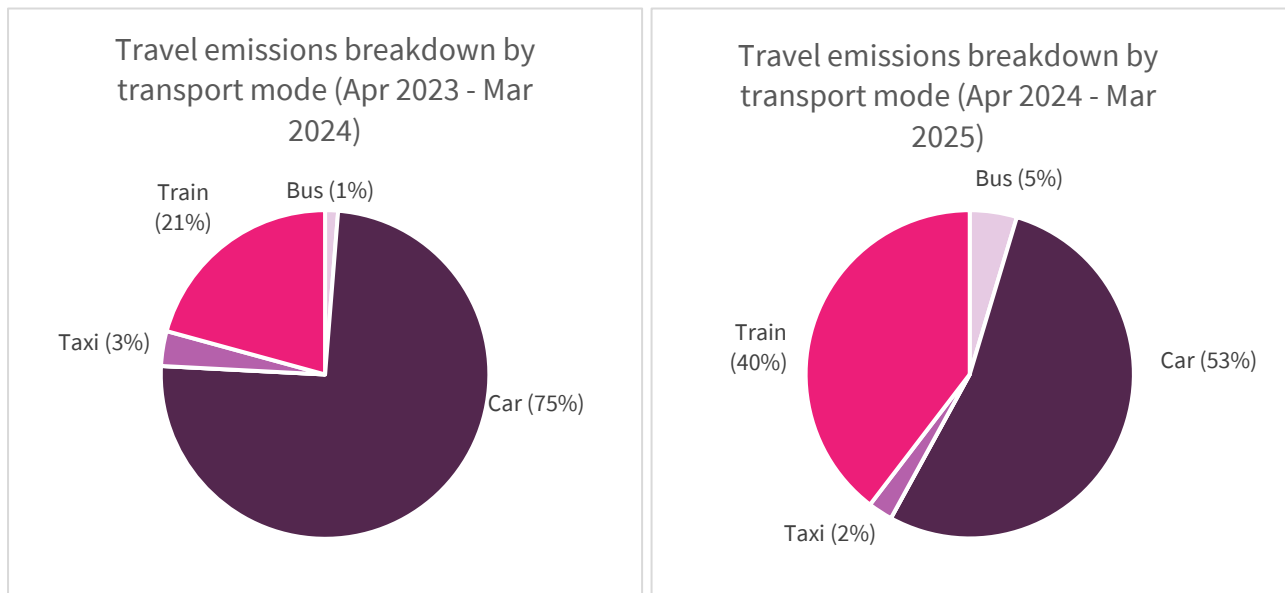


Figure 3. Breakdown of emissions by mode of travel for 2023/24 (left) and 2024/25 (right).

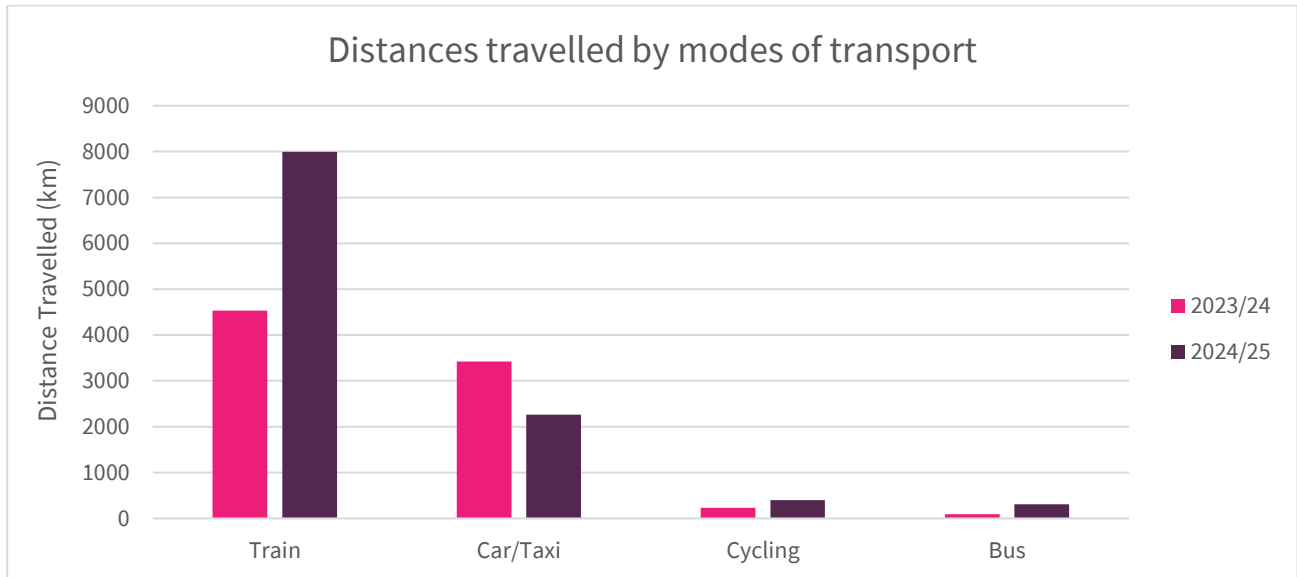


Figure 4. Business travel distance by mode of transport for 2023/24 and 2024/25

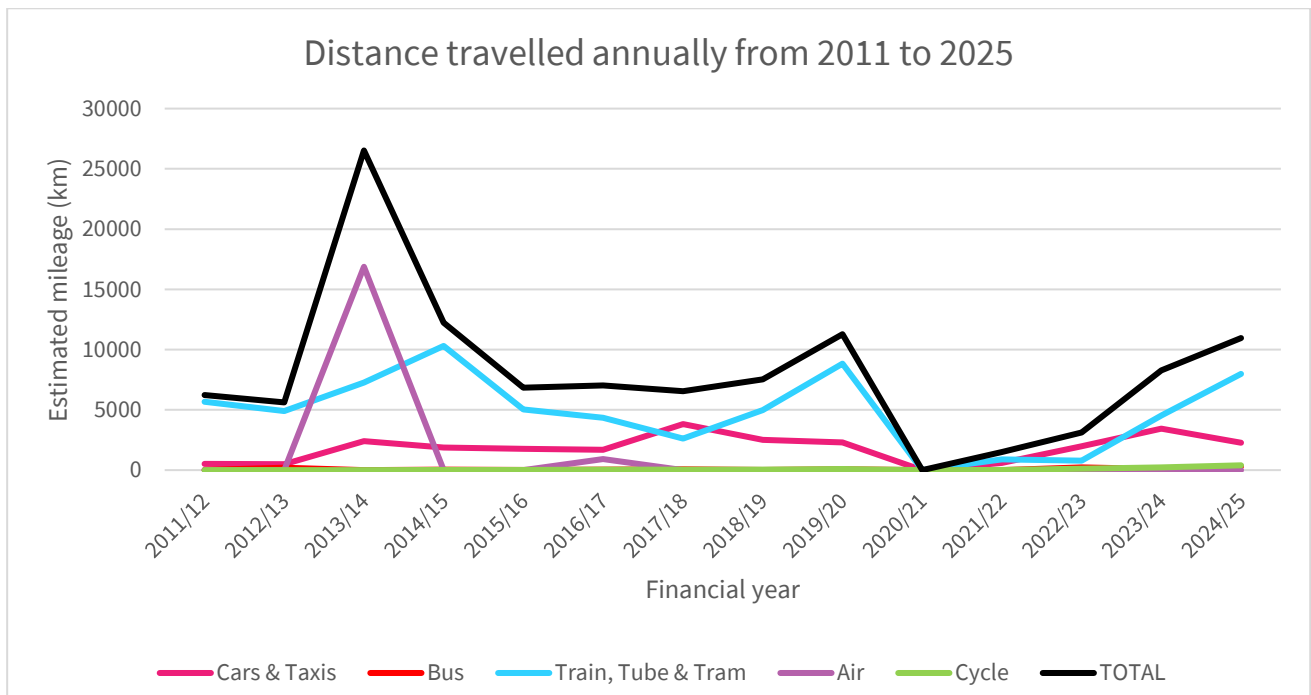


Figure 5. Business travel distance by year and mode of transport since 2011/12

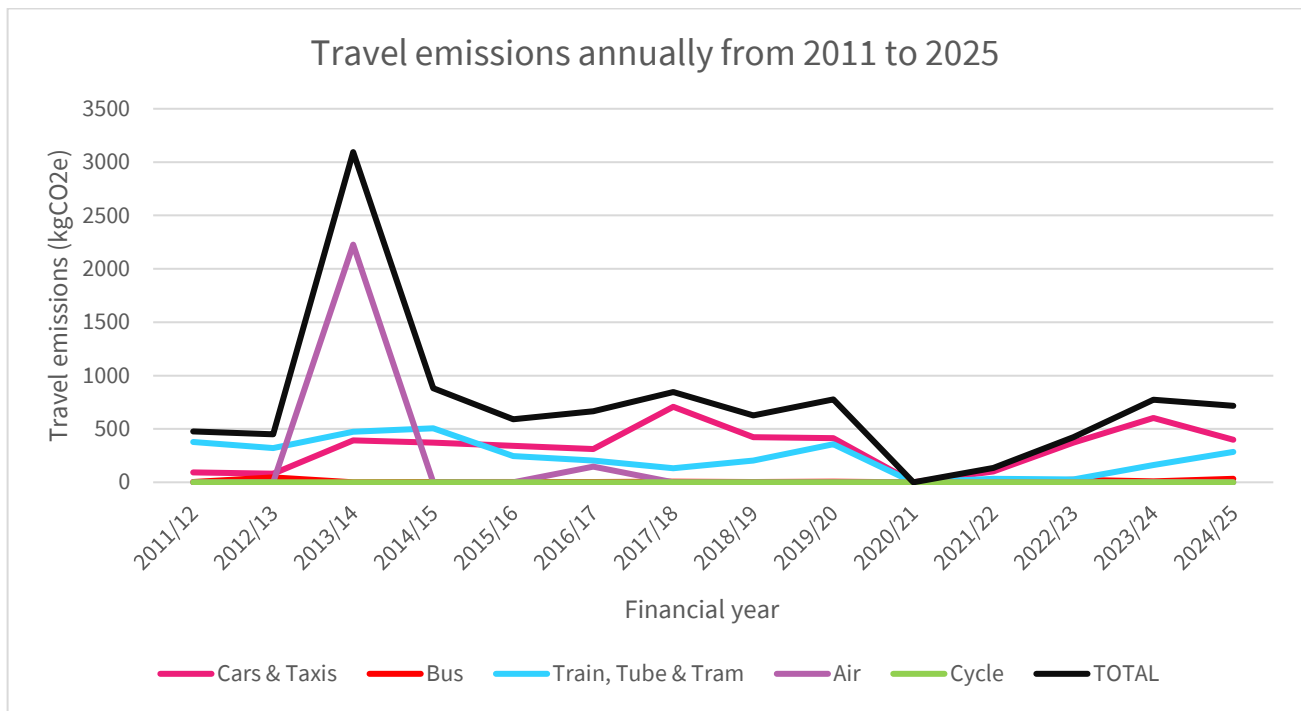


Figure 6. Business travel emissions by year and mode of transport since 2011/12

6. Results: Office administration emissions

- The most important thing to consider regarding office emissions is the change of methodology from the 2019/20 report, resulting in a significantly lower figure for carbon emissions. **Only devices used in the office were measured** in this report, in contrast to past reports in which data on greater emitters of carbon were available, including lighting and heating.
- Therefore, **the data and methodology for office emissions used in this report should be used as a baseline for future reports, and emissions data from the past two years should not be compared directly against past data.** The remaining points in this section summarise results from the past two financial years and compare these to each other.
- **Desktops had the lowest annual use**, accounting for only 25.87% of total hours of device use in the office, **but make up a significant 43.51% of emissions.**
- Meanwhile, laptops account for 40% of total hours of device use in the office but make up a lower 37.33% of emissions.
- Monitors account for 34.17% of total hours of device use in the office but make up a minimal 19.15% of emissions. However, a large proportion of the 21.61 kgCO₂e produced by monitors can be associated with desktops, further proving that **desktops are the greatest carbon producers of electronic devices** used in the SWM office.
- Printing is another source of carbon production by SWM; however, the usage and emissions are relatively low, at an average of 13.25kgCO₂e per year, compared to other devices such as laptops.
- **Most of the increased printing from 2023/24 to 2024/25 was in black and white**, with minimal change in coloured printing, which emits more per sheet hence the discrepancy between the 84.11% growth in total sheets printed and 62.54% increase emissions.

Table 3. Annual electricity usage and emissions from devices used in the office.

Type of Device	Estimated hours of use	Estimated electricity use (kWh)	CO2 emissions (kgCO2e)
Laptop	4,068.40	203.42	42.12
Desktop	2,634.10	237.07	49.09
Monitor	3,478.60	104.36	21.61
TOTAL	10181.10	544.85	112.82

Table 4. Electricity usage and emissions from printer use.

Financial year	Total sheets printed	Black and white sheets printed	Colored sheets printed	Electricity used (kWh)	CO2 emissions (kgCO2e)
2023/24	950	592	358	48.74	10.09
2024/25	1749	1441	308	79.20	16.40
TOTAL	2699	2033	666	127.94	26.49

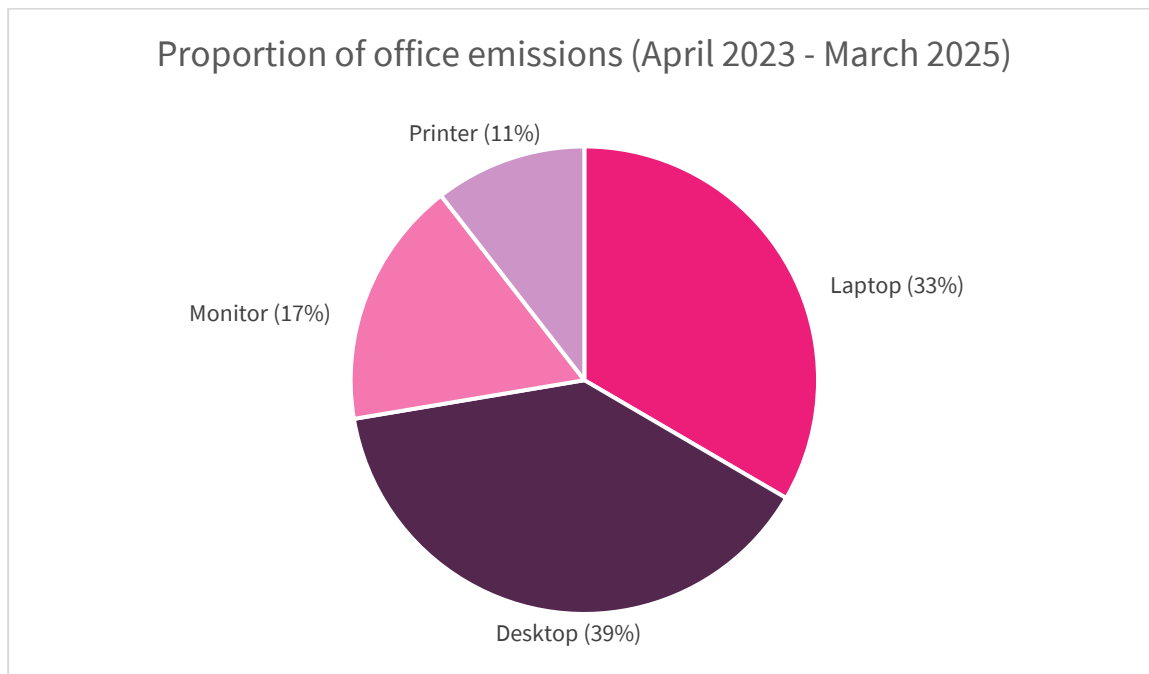


Figure 7. Proportion of office emissions from April 2023 – March 2025

7. Results: Website emissions

- The most noticeable relation between number of visits and emissions from the SWM website is the **significant emissions from the home page**. 4.02gCO₂ were produced on this page per visit, compared to the average across other pages on the website of 0.29gCO₂ produced per visit, **making the home page 1,386.21% worse than the average URL on the site in terms of emissions**.
- As the most visited page in both 2023/24 and 2024/25, combined with the high gCO₂ produced per visit, the home page makes up a large proportion of emissions in both years.
- In 2024/25 there were reduced visits to the home page and increased visits to various other pages on the site with an average of 2.36 pages per session being visited in 2023/24, compared to 2.91 pages per session in 2024/25, helping to reduce emissions by **24.82%**.
- Whilst website visits make up a small proportion of total emissions, simple changes can result in significant reductions, including reducing images and interactive menus. Work has already commenced to mitigate emissions from the website, particularly on the home page. If emissions from the home page were reduced to the average gCO₂ produced by all pages on the site, total emissions for 2023/24 would stand at 23.32 kgCO₂e, 584.95% lower than the current figure.
- It is also important to note that the website is a core part of business for SWM, so although emissions per visit can be reduced, it is intended that visits to SWM's website further our ability to support partners to reduce their own emissions in ways that would greatly outweigh the small emissions from the website.

Table 5. Emissions from website visits in 2023/24

Website page	gCO ₂ per visit	Estimated number of visits	CO ₂ emissions (kgCO ₂ e)
Home	4.02	36,572	147.02
Members Directory	0.24	16,789	4.03
Events	0.2	9,734	1.95
Other pages	0.29	23,215	6.73
TOTAL	N/A	86,310	159.73

Table 6. Emissions from website visits in 2024/25

Website page	gCO ₂ per visit	Estimated number of visits	CO ₂ emissions (kgCO ₂ e)
Home	4.02	28,463	114.42
Members Directory	0.24	11,072	2.66
Events	0.2	18,538	3.71
Other pages	0.29	24,754	7.18
TOTAL	N/A	82,827	127.97

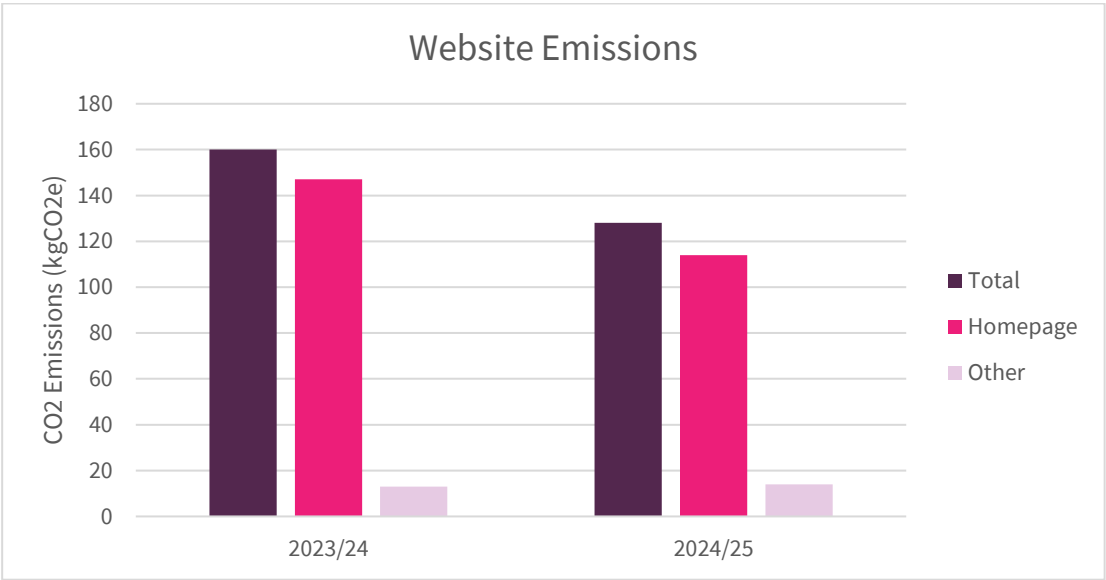


Figure 8. Website emissions April 2023 – March 2025

8. Recommendations

Progress against previous recommendations

Table 7. Progress against previous recommendations.

Previous recommendations	Progress
Ensure car and taxi travel is only ever used as a genuine last resort, with a target to reduce car travel in actual terms and as a proportion of overall business travel.	As shown in Figure 5, distance travelled by car steadily increased from 2020/21 to 2023/24. This runs against this recommendation in terms of mileage; however, it is important to consider the growing number of staff that suggests car travel distance per staff member has not increased at the same rate as pure distance travelled in this period. However, a fall in car travel distance in 24/25 is positive and shows how this recommendation has recently been implemented effectively, leading to a reduction in emissions that correlates with a greater reliance on train travel, as well as cycling for short trips. Overall, this recommendation remains crucial to overall emissions of SWM.
Use videoconferencing where practical and possible to reduce travel emissions.	During the lockdown as a result of the COVID-19 pandemic, there was a greater reliance on videoconferencing than in previous years. This has been carried over in the following years since the pandemic, and across 2023/24 and 2024/25, nearly all meetings were held online through apps such as Microsoft Teams. Inevitably, some meetings must be in person, but this is minimised, suggesting that this recommendation has been followed effectively and has helped to mitigate emissions from business travel when possible.
Implementing incentives/dis-incentives for green/non-green travel respectively may be an effective way of encouraging all staff, when they do have to travel, to do so as sustainably as possible.	SWM offers a Cycle-to-Work salary sacrifice scheme which helps staff who want to purchase a bicycle (to commute to work). This scheme has been taken up by three staff members in recent years and, whilst not included in business travel reporting, commuting to work by bicycle has increased. There has been a 78.71% increase in cycling distance for business travel between 2023/24 and 2024/25. However, cycling still makes up a relatively small percentage of total business travel each year, and future implementation of disincentives, particularly car travel, could be effective at reducing overall travel emissions.

Recommendations for the future

Table 8. Recommendations for reducing emissions and for reporting methodology in the future.

Emissions source	Recommendations
Business Travel	When car use is necessary, using vehicles with lower CO ₂ emissions would be helpful to reduce emissions from travel. Diesel and petrol vehicles produce significantly more CO ₂ than hybrid or electric vehicles (ULEV), however only a small proportion of car travel distance is completed by ULEVs. A shift away from petrol and diesel vehicles would be ideal, however the financial and other challenges of implementing these changes are acknowledged. A reduction in mileage using cars as a whole, as previously discussed, is a more realistic and viable change that can heavily influence SWM emissions.
Office Administration	One weakness of the methodology used to provide data on office emissions is that it assumed the responses to the survey were true for the entire two-year period of 2023-2025. It is highly probable that these responses would vary slightly from year to year, meaning a survey should be carried out at least once a year to account for these changes. Furthermore, this would give an opportunity to present more specific emissions for individual years, rather than finding an average annual emission as can be found in Table 3 of this report. The survey used in the methodology for office administration emissions could be extended to the use of devices when working from home. Due to the hybrid nature of working at SWM, it may be useful to include emissions from devices here as well as when in the office. This would be relatively simple to do, due to using the same conversion factors and calculations as when determining emissions from the office, by adding a new section to the device use survey sent to staff.
Website	Another assumption used in this report is in relation to the gCO₂ produced by each URL on the SWM website. One measurement was taken at the time of writing the report, and this figure was used across the entire examined timespan. During this period, there were certainly changes to the website that would make these figures inaccurate and alter the final data on emissions from the website each year. It was not considered valuable to measure the emissions of each webpage across the site, however it would be beneficial to complete these measurements on the most visited pages (home, members directory and events) on a more regular basis such as once every three months, or after each update to the website. This would improve the accuracy of data regarding website emissions and eradicate many of the assumptions made in this report Reducing emissions from the website, especially the home page, would make a significant difference to overall emissions. The activity of completing this report instigated work to improve the carbon footprint from this source, and minor fixes such as removing the scrolling images on the home page would greatly reduce carbon production.
Other	The calculations made in Section 6 to estimate the office emissions offer an initial indication of some of the emissions produced by SWM's office activity, although are likely far outweighed by our contribution to the overall building emissions. SWM should consider how to record emissions from other uses of the office building for a more accurate picture of emissions, however measures to reduce energy usage in the building can be promoted regardless, such as minimising and sorting waste and mindful use of facilities such as meeting rooms.

9. STEAMhouse

As mentioned in section 3. Methodology, the nature of SWM's office space makes calculating building emissions difficult. The building in which SWM's office are located, [STEAMhouse](#), is a multi-purpose working space used by businesses, students, communities and others. This makes data covering the electricity, heating and waste produced by the building difficult to obtain, and scaling this down to estimate SWM's contribution would be even more challenging. The calculations made in Section 6 to estimate the office emissions offer an initial indication of some of the emissions produced by SWM's office activity, although are likely far outweighed by our contribution to the overall building emissions. In order to provide some insight into our environmental impact through our office space, below is a summary of STEAMhouse's sustainability credentials and activities.

- The building is certified [BREEAM Excellent](#), reflecting high sustainability performance across its design, construction and operation, placing it in the top 10% of new UK non-domestic buildings. This example of best practice gives the building an Energy Performance Certificate (EPC) rating B, higher than the average for similar buildings.
- STEAMhouse is covered by the [BCU Environmental Policy](#), which states a commitment to reduce carbon emissions and develop an approach to achieve net zero.
- Their Environmental Policy also pledges to minimise waste production, reusing and recycling where waste prevention cannot be avoided. STEAMhouse produced 7921kg of waste between 01 August 2023 – 31 July 2024, of which 57% was recycled.
- STEAMhouse also falls under the scope of Birmingham City University's (BCU) Environmental Management System, which is accredited to ISO 14001:2015, ensuring continuous improvements in environmental performance.
- The building switched to a 100% [REGO](#) backed renewable electricity provider, [Bryt Energy](#), in April 2024. There is, however, no on-site renewable energy generation, and non-renewable gas is used to heat the building, accounting for the majority of energy consumption.