



Greenhouse Gas Emissions Reports

2023/24 Corporate Emissions
2022 Boroughwide Emissions





Carbon Footprint

You cannot reduce what you don't measure

Measures the main Kyoto Protocol GHGs' (such as carbon dioxide, methane, nitrous oxides and various fluorocarbons)

Generally reported in tonnes of carbon dioxide equivalent, where equivalence means having the same global warming effects as carbon dioxide over a 100-year period.

Emissions are broken down into scopes;

Scope 1 are direct emissions, such as mains gas, fleet vehicles and refrigerant gases.

Scope 2 are indirect emissions from purchased electricity

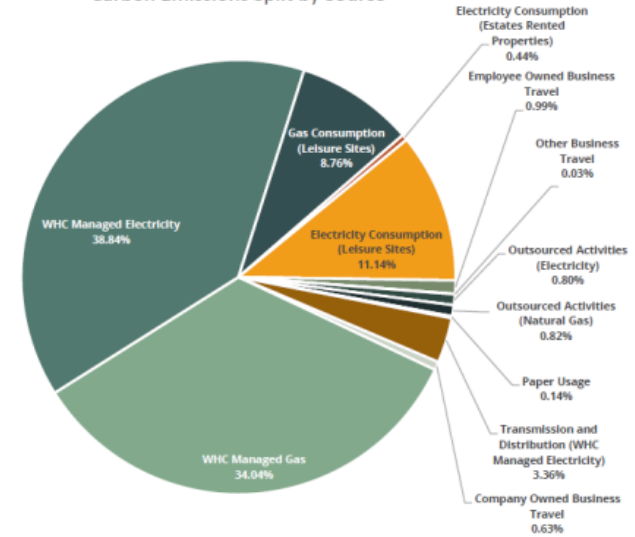
Scope 3 are all other indirect emissions, and can include T&D losses, business travel, home working, water, staff commuting, and emissions associated with the supply chain



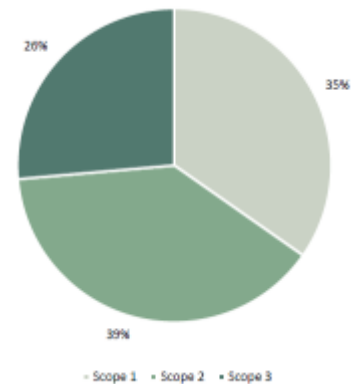
Corporate Emissions 23/24

Scope	Emissions Source	Sum of tCO ₂ e	Percentage of total emissions
Scope 1	Company Owned Business Travel	13.33	0.6%
Scope 1	WHC Managed Gas	723.55	34.0%
Scope 2	WHC Managed Electricity	825.61	38.8%
Scope 3	Electricity Consumption (Estates Rented Properties)	9.28	8.8%
Scope 3	Electricity Consumption (Leisure Sites)	236.91	0.4%
Scope 3	Gas Consumption (Leisure Sites)	186.30	11.1%
Scope 3	Employee Owned Business Travel	21.12	1.0%
Scope 3	Other Business Travel	0.67	0.0%
Scope 3	Outsourced Activities (Electricity)	17.00	0.8%
Scope 3	Outsourced Activities (Natural Gas)	17.50	0.8%
Scope 3	Paper Usage	3.02	0.1%
Scope 3	Transmission and Distribution (WHC Managed Electricity)	71.42	3.4%
Total Carbon Emissions (tCO₂e)		2,126	

Carbon Emissions Split by Source

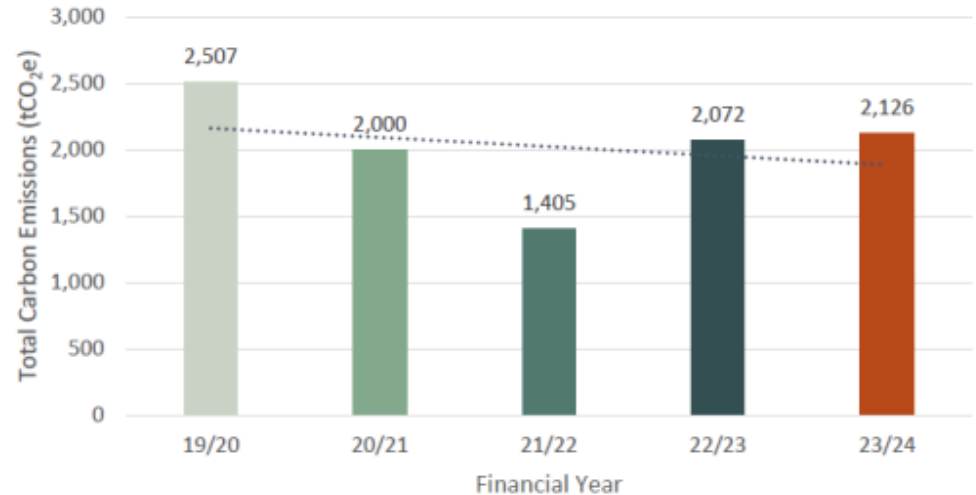


Overall Summary Covering 01/04/2023 – 31/03/2024				
	Total kWh	Total kgCO ₂ e	Total tCO ₂ e	Percentage
Scope 1	4,008,727	736.876	737	35%
Scope 2	3,985,275	825,610	826	39%
Scope 3	2,473,438	563,217	563	26%
Total	10,467,439	2,125,703	2,126	100%



Year on Year change

	19/20	20/21	21/22	22/23	23/24
Total Emissions (tCO₂e)	2,507	2,000	1,405	2,072	2,126
Emissions per Household (tCO ₂ e/house)	0.0578	0.0461	0.0304	0.0450	0.0443
Emissions per Turnover (tCO ₂ e/£m)	17.9	14.3	10.2	13.6	16.3
Emissions per FTE (tCO ₂ e/ FTE)	-	-	4.04	5.84	5.81

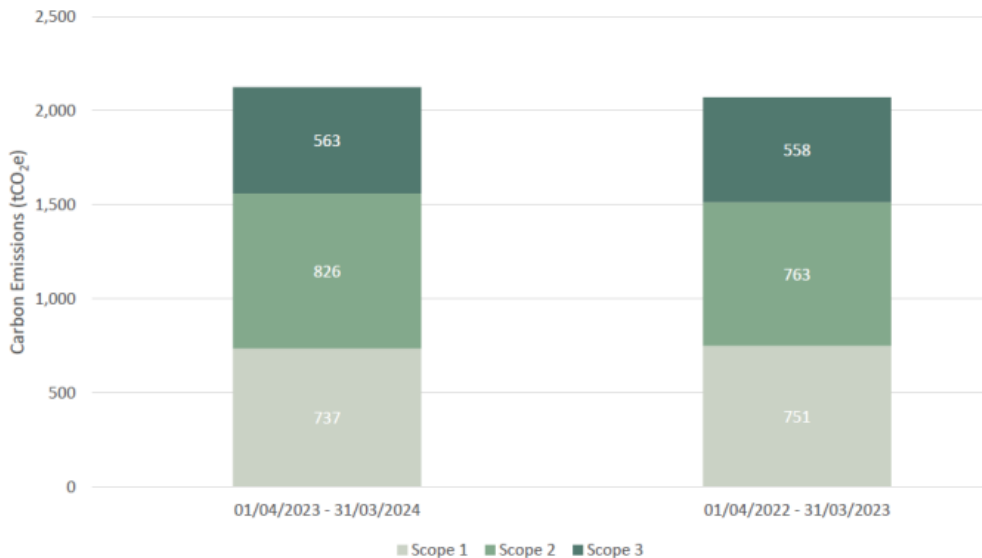


Total emissions **increased** by 2.6% since last reporting period of 2022/23

Total emissions **decreased** by 15% since the baseline year of 2019/20



Analysis



Scope 1 decreased primarily due to reduced gas usage across the portfolio, improved efficiency and optimisation of the BMS in Campus East and Campus West.

Scope 2 increased due to higher electricity usage across portfolio. Anomalies of high usage in specific buildings have been identified and rectified. Additionally, the conversion factor increased slightly this year.

Scope 3 has slightly increased due to increased gas consumption in some leisure facilities however it should be noted that was an error with the heat pump in the Hatfield swim center, which has now been rectified. Furthermore, electricity use at many leisure sites decreased.

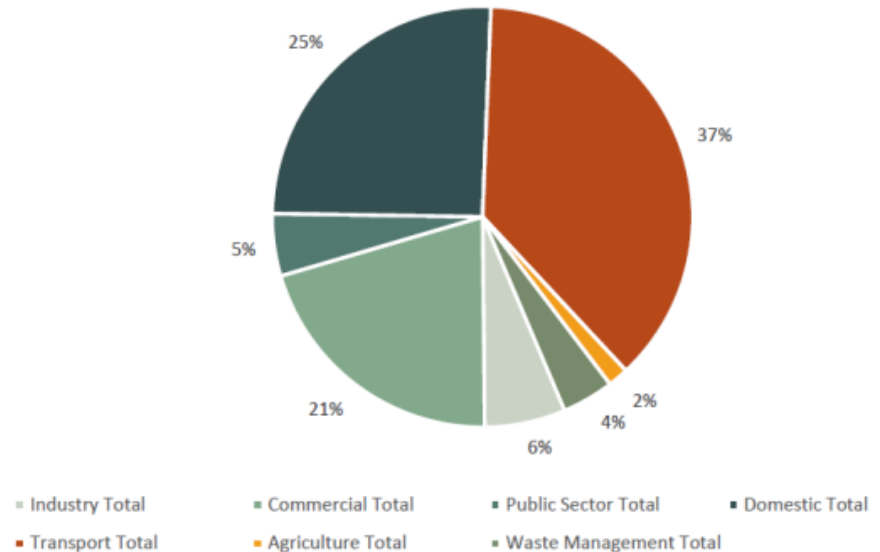
Also, additions to the portfolio such as the opening of the Oak Hill Lawn Cemetery and Crematorium have caused an overall increase in energy usage



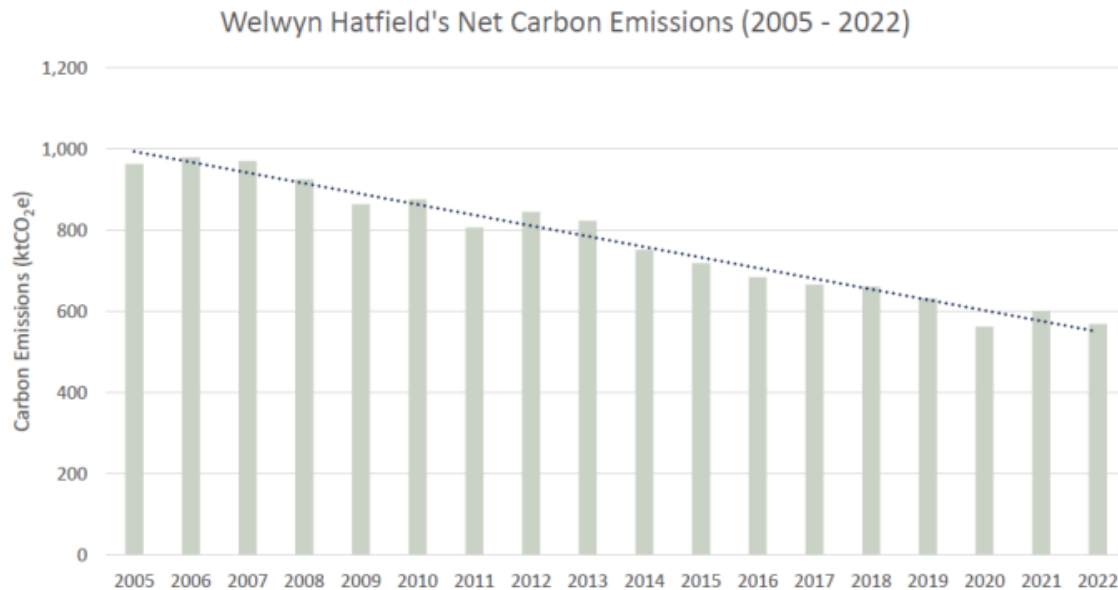
Borough Emissions 2022

2022		
Sector	ktCo2e	%
Industry Total	36.2	6.4
Commercial Total	120.0	21.1
Public Sector Total	27.9	4.9
Domestic Total	147.8	26.0
Transport Total	217.8	38.2
Agriculture	9.2	1.6
Waste management Total	23.1	4.1
LULUCF Net Emissions	-12.6	-2.2
Total Emissions	569.48	100.0

Welwyn Hatfield's CO₂e Emissions Excluding LULUCF (2022)



Year on Year change

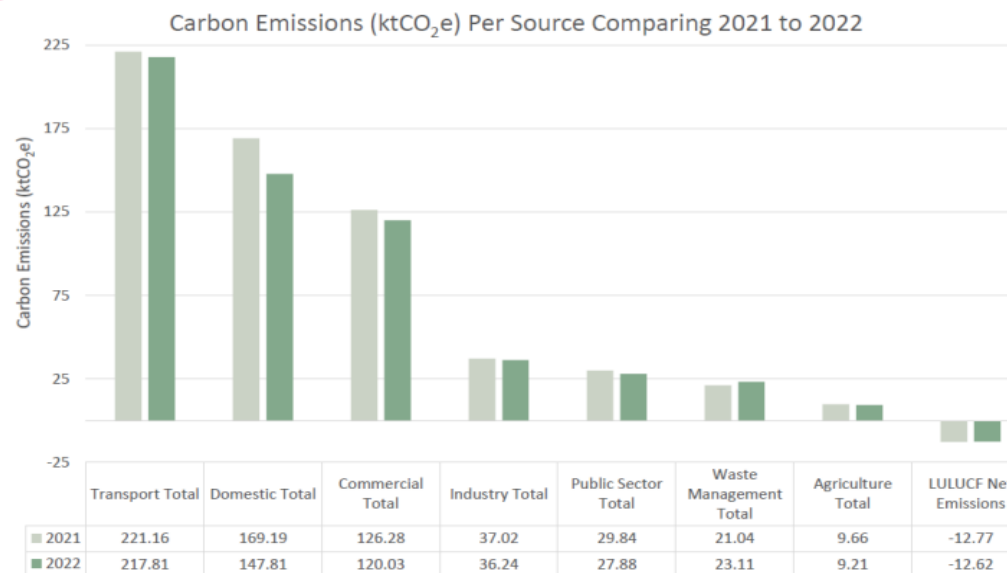


Total emissions **decreased** by 5% since last reporting period of 2021

Total emissions **decreased** by 41% since the baseline year of 2005



Analysis



DESNZ change methodology each year, however they do factor in these changes for previous years, to maintain a consistent year on year comparison.

There has been a reduction in every emission source compared to last reporting period apart from waste management, where there was a 10% increase

