Water Management Alliance

Annual Carbon Report

2024/2025 Financial Year Update

Published: January 2026

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1. Introduction

This report is an annual update to the Water Management Alliance's full carbon audit (initially published in February 2023) as it strives to reduce carbon emissions by 50% by 2030. This report now includes emissions data for the 2024/2025 financial year.

The carbon audit will allow the Water Management Alliance to calculate and benchmark its carbon emissions and enable the key sources of emissions to be identified. This report now sits alongside the Water Management Alliance's Carbon Management Plan which sets out short-, medium- and long-term actions to reduce carbon emissions.

2. Purpose

The Water Management Alliance would like to commit to the Government's ask of small businesses (SMEs) to commit to take climate action in three ways:

- 50% reduction in greenhouse gas emissions before 2030. (Scope 1 and Scope 2)
- Achieve net zero emissions by 2050. (across Scope 1, 2 and 3)
- Disclose progress on a yearly basis.

3. Methodology

3.1 The GHG Protocol

The GHG Protocol establishes comprehensive global standardised frameworks to account for and report on greenhouse gas emissions. This carbon audit has been produced in line with the principles of the Greenhouse Gas (GHG) Protocol and UK Government Department for Business, Energy and Industrial Strategy (BEIS) GHG reporting guidance.

The GHG emissions have been calculated by multiplying activity data by the relevant emissions factor:

Activity data x GHG emissions factor = GHG emissions

GHG emissions are expressed as carbon dioxide equivalents (CO2e), and include Carbon dioxide (CO2), Methane (CH4), Nitrous oxide (N2O), Sulphur hexafluoride (SF6), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs) and Nitrogen trifluoride (NF3).

NB: GHG emissions have been calculated and displayed in $kgCO_2e$, however, for readability, these figures have been converted into tCO_2e throughout the narrative.

3.2 Scope Definitions

The Green House Gas Protocol defines 3 types of emission categories referred to as Scopes. To help demonstrate – Figure 1 shows a Scope infographic. Figure 2 describes each activity the WMA has included within each Scope.

Scope 1 - Direct Emissions from activities under our control. Primarily relating to fossil fuel combustion

Scope 2 - Indirect Emissions from the electricity we purchase and use

Scope 3 - All other indirect emissions from activities, sources that we do not own or control

3.3 Organisational boundary

Calculating Scope 3 emissions can often be difficult given that the data required is mostly held by other organisations in the supply chain. For Scope 3 we have had to be clear which activities we are unable to report on

Included -

Fuel purchased by WMA for owned plant used for PSCA Work

Excluded -

Fuel purchased by contractors for their own vehicles and plant when undertaking IDB work.

Emissions from FCERM Capital projects where we use contractors.

Employee Commuting

For the excluded items we may look to develop a reporting process that would allow us to report these emissions in future annual audits. We will request contractors for any construction projects to inform us of their emission reporting capabilities and which GHG calculation and reporting standards they operate to.

3.4 Coverage

The Water Management Alliance is an umbrella organisation, offering back-office and technical services to a consortium of seven Internal Drainage Boards (IDBs). Each IDB managed by the WMA is an autonomous local, public body which has statutory duties to the environment as it undertakes its permissive powers.

The IDBs covered by the consortium include South Holland IDB, King's Lynn IDB, Norfolk Rivers IDB, Broads IDB, Waveney, Lower Yare & Lothingland IDB, East Suffolk WMB and Pevensey & Cuckmere WLMB. Data has been collected and summarised for each individual Board and collectively as the WMA.

3.5 Target

The IDBs of the WMA have a carbon net zero target date of 2050.

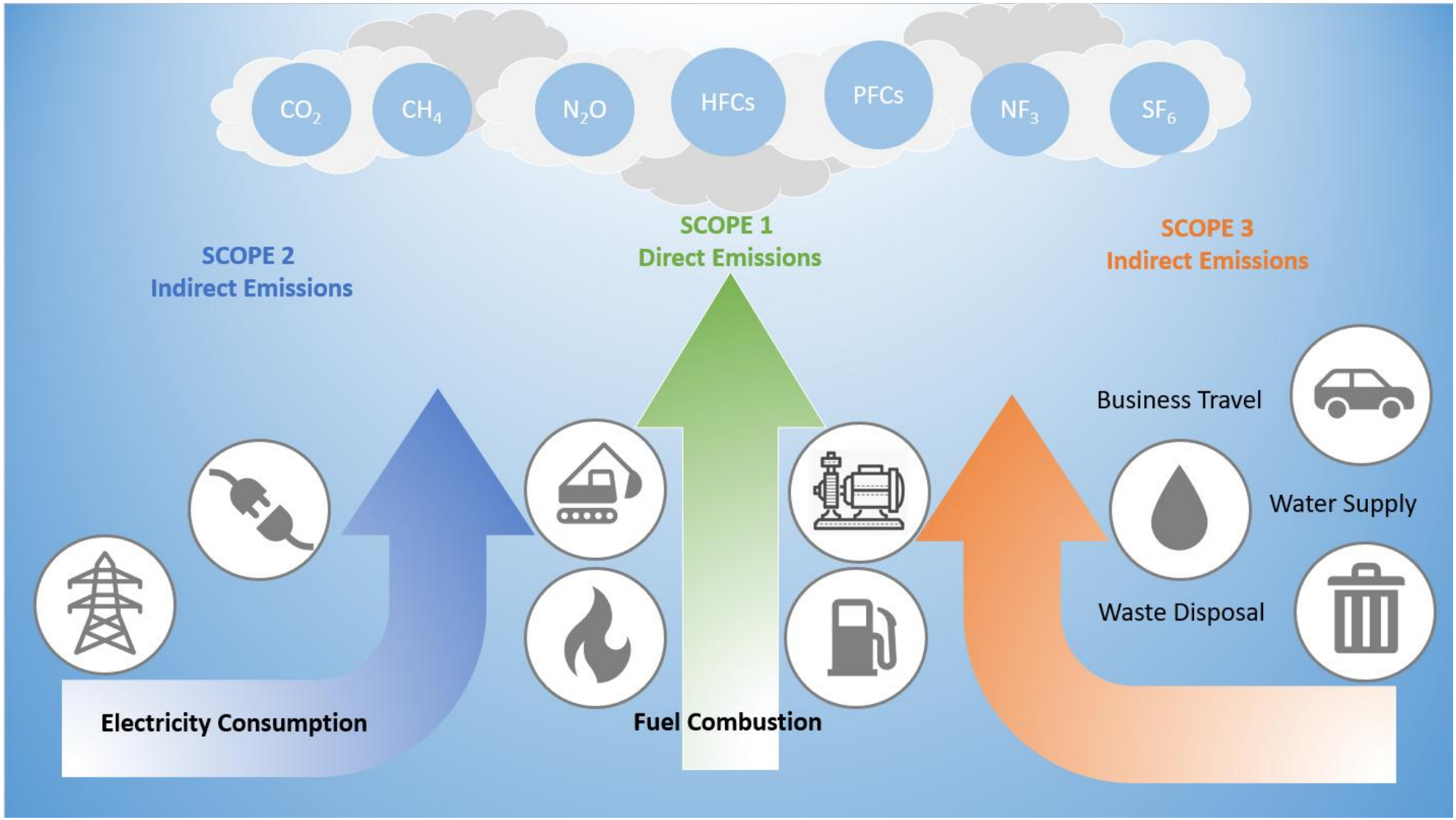


Figure 1: Scope infographic

Activity		Description	Data Source	Unit
Scope 1 - Direct Emissions – Fuel Consumption				
Fuel in Fleet Vehicles	White Diesel	operational vehicle Fleet & Plant	fuel invoices	Litres
	Petrol			
	Red Diesel			
	Bio Oil			
Offices	Fugitive Emissions	Air con fluoros	EOC Services	Kg
Pumping Station	Red Diesel Generators	Operating Pumping station back-up generators	fuel invoices	Litres
	Unleaded			
Scope 2 - Indirect Emissions – Electricity Consumption				
Electricity Emissions	Offices	Electricity purchased from the national grid to power the WMAs offices and Pumping Stations	utility bills	kWh
	Pumping Station			
Scope 3 - Other Indirect Emissions				
	Electricity Transmission & Distribution Losses	These are indirect emissions from the transmission and distribution of our purchased electricity. It is considered best practise to include these	utility bills	kWh
	Business travel inc Car, rail, and flights	Staff travel - in their own vehicles on business grounds, via train or plane	employee mileage claims / expenses	Miles / km
	Water Supply & Treatment	The supply of water to our buildings and sites. Treatment is the water we return to the system (90% return to sewer rate).	utility bills	m^3
	Waste & Recycling	Weight of Waste and recycling collected from our offices	Veolia Dashboard	Kg

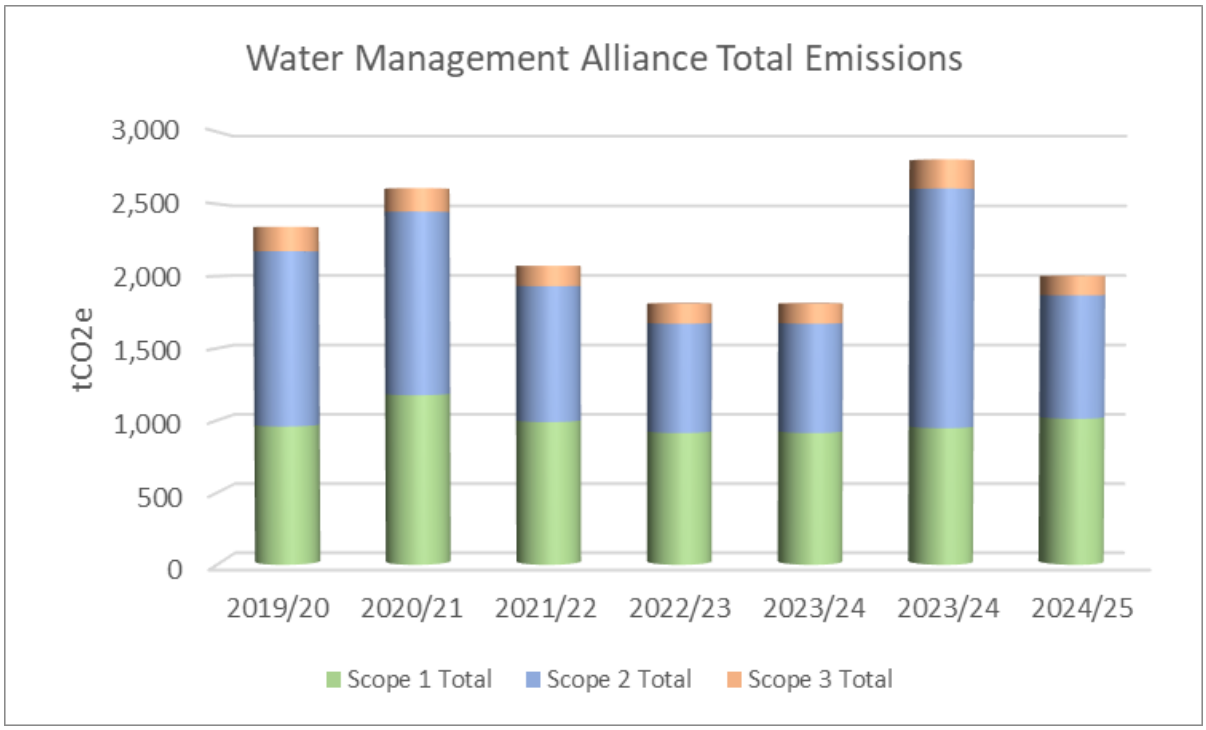
Figure 2: Description of each activity WMA included within each Scope

4. RESULTS

4.1 WMA Summary

The data shows that overall, Carbon Emissions in 2024/25 are 15% lower compared to our baseline year of 2019/20, a reduction of 340.1 tCO2e. The emissions are 29% lower compared to 2023/24, a reduction of 804.8 tCO2e.

All Board's emissions have decreased in 2024/25 compared against the previous year of 2023/24 – largely due to the very wet weather endured during the Winter of 2023/24 which increased the year's emissions significantly, followed by the subsequent drier Winter of 2024/25 – as described and evidenced in 4.3 below and Appendix 8. Overall emissions have also decreased when compared to the baseline year, due to the changes implemented by the WMA and member Boards to decrease emissions, also evidenced below.



Scope 1

- Overall Emissions 7% higher (an increase of 65.1 tCO2e) in 2024/25 than 2023/24, 6% higher (increase of 53.6 tCO2e) than 2019/20 baseline year.
- This is largely due to the expansion of the business, increased recharge work and the introduction of further fleet vehicles for new field operatives.
- The WMA aims to standardise the data to reflect individual carbon usage that takes the growth of the business into account.

Scope 2

- Overall Emissions 48% lower (a decrease of 802.6 tCO2e) in 2024/25 than 2023/24, 30% lower (a decrease of 358.5 tCO2e) than 2019/20 baseline year.
- This is largely due to Pumping Stations not being used as much this year compared to the previous year due to drier weather.

Scope 3

- Overall Emissions 33% lower (a decrease of 67.3 tCO2e) in 2024/25 than 2023/24, 21% lower (a decrease of 35.1 tCO2e) than 2019/20 baseline year.

4.2 Quality Control

The Finance team collating the data have applied data checks and consistency in producing data from the system. All outliers have been checked and explanations sought and documented from individual IDBs where large variations have occurred.

4.3 2024/25 Weather

The weather in East Anglia between April 2024 and March 2025 featured a strong contrast, with a wet and unsettled start followed by a drier and sunnier spring in 2025, which ultimately became the UK's warmest and sunniest spring on record. May 2024 was noted for being the warmest on record for the UK (since 1884), though April's wetness led to a cooler than average summer overall.

June by contrast to May, was cooler and drier than average overall, particularly in the first half of the month but a brief warm spell occurred between the 23rd and 26th of the month.

The summer of 2024 was the coolest since 2015 for the UK, with rainfall and sunshine generally around average. East Anglia was marginally sunnier than other regions. September saw mean temperatures in East Anglia around 0.5°C above average. However, the UK overall experienced above-average rainfall, with southern England recording significantly more than average. However, many parts of East Anglia missed much of this rainfall, with South Holland being impacted the most.

The winter of 2024 -25 found that temperatures were generally above the long-term average, though with potential for occasional stormy weather from the Atlantic. March 2025 was a record-breaker for East Anglia, experiencing its sunniest March on record (since 1910) and very dry conditions. It was also much warmer than the long-term average.

4.4 Data

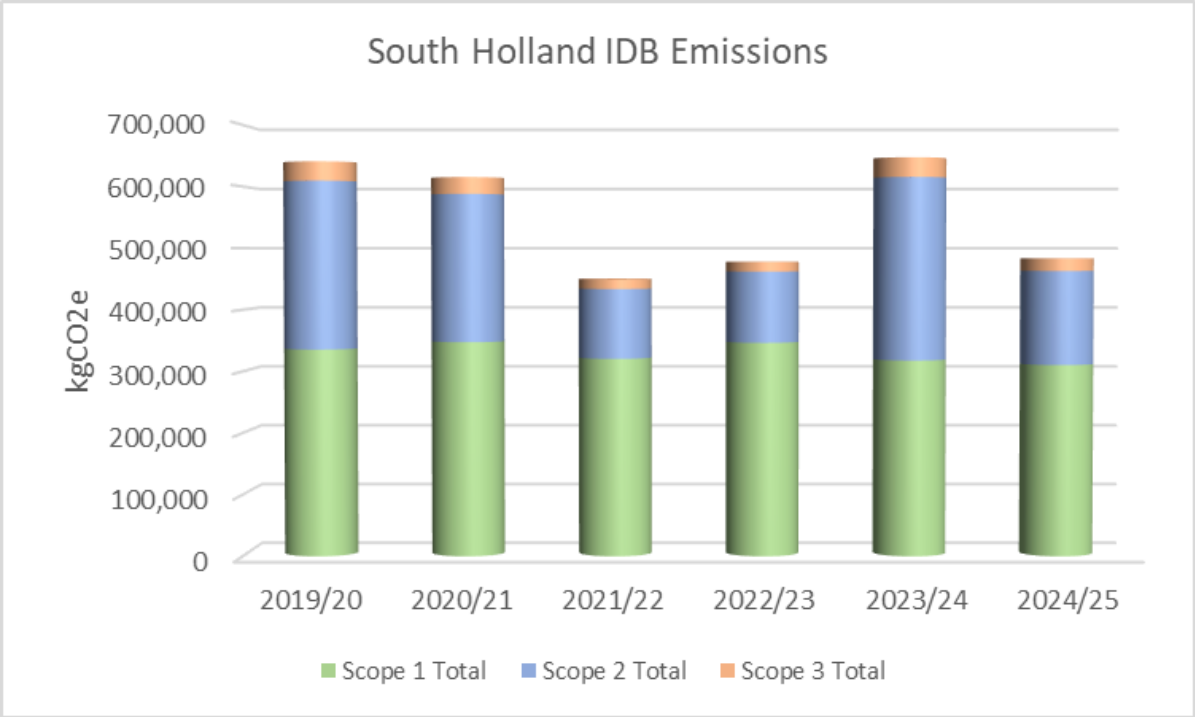
All the Boards are on 'Green Electricity Tariffs' but we have still recorded 100% of the electricity emissions as we currently do not believe the electricity provided from these tariffs is all from renewables. This is currently being investigated by our Utilities Broker and the CFO.

		WMA TOTAL kgCO2e Emissions					
Scope 1 - Direct Emissions		2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Fuel in Fleet Vehicles	White Diesel	151,605.7	150,615.0	150,444.7	149,113.5	150,151.1	164,182.1
	Unleaded	1,614.9	1,454.4	1,464.5	1,121.3	1,769.9	2,371.3
	Red Diesel	730,561.6	885,025.9	744,720.1	741,692.0	759,135.2	769,740.3
	Bio Oil	0.0	0.0	550.0	137.5	0.0	0.0
	Gas	16,831.9	19,520.3	18,308.6	2,583.2	0.0	0.0
Small Tools / Others	Unleaded	211.7	189.1	95.7	253.0	588.8	221.8
	White Diesel	0.0	0.0	0.0	0.0	696.3	99.0
	Red Diesel	0.0	0.0	0.0	0.0	184.9	316.7
Offices	Oil	0.0	0.0	0.0	0.0	0.0	0.0
	Air con flouros	13,303.5	0.0	75,153.1	12,804.9	0.0	76,848.3
Pumping Station	Red Diesel Pump Engines or Generators	46,282.8	120,042.5	617.9	7,231.2	36,236.0	0.0
	Unleaded	11.0	362.3	100.5	83.1	140.3	221.8
Scope 2 - Indirect Emissions							
Electricity Emissions	Offices	23,489.3	17,327.2	19,364.0	21,042.0	14,943.4	20,749.2
	Pumping Station	1,188,238.7	1,251,588.7	920,709.5	735,919.5	1,640,860.2	832,495.2
Scope 3 - Other Indirect Emissions							
Electricty T&D Losses	Electricty T&D Losses	102,712.9	109,192.1	84,251.9	69,245.3	143,343.0	75,413.5
Business Travel	Private Car Business travel	65,653.4	52,275.5	55,324.2	66,162.6	57,326.6	58,032.8
	Rail	120.3	27.8	117.9	91.6	78.6	142.9
	Flying	0.0	0.0	0.0	264.3	0.0	0.0
Water Supply / Treatment	Water Supply	365.9	349.6	58.0	90.0	76.6	68.2
	Water treatment	26.5	30.8	22.2	82.0	50.4	37.6
Waste / recycling	Waste	76.6	76.5	117.3	100.7	260.6	119.7
	Recycling	9.5	9.5	11.6	31.4	25.2	5.3
	TOTAL	**2,341,116.3**	**2,608,087.1**	**2,071,431.8**	**1,808,049.0**	**2,805,867.2**	**2,001,066.0**
Scope 1 Total		**960,423.1**	**1,177,209.4**	**991,455.2**	**915,019.7**	**948,902.5**	**1,014,001.5**
Scope 2 Total		**1,211,728.0**	**1,268,915.9**	**940,073.5**	**756,961.5**	**1,655,803.6**	**853,244.4**
Scope 3 Total		**168,965.1**	**161,961.8**	**139,903.1**	**136,067.8**	**201,161.0**	**133,820.0**
% Change from Baseline year 2019/20							**-15**
% Change from 2023/24							**-29**

APPENDIX 1: SOUTH HOLLAND IDB

1.1 Summary

The data shows that overall, Carbon Emissions in 2024/25 are 24% lower compared to our baseline year of 2019/20, a decrease of 156.7 tCO2e. The emissions are 25% lower than 2023/24, a decrease of 163.3 tCO2e.



1.2 Results

Scope 1

- Overall Emissions 2.3% lower (a reduction of 7.3 tCO2e) in 2024/25 than 2023/24, 7.5% lower (reduction of 25 tCO2e) than 2019/20 baseline year.

Scope 2

- Overall Emissions 49% lower (a reduction of 120.8 tCO2e) in 2024/25 than 2023/24, 44% lower (reduction of 144.6 tCO2e) than 2019/20 baseline year.

Scope 3

- Overall Emissions 36% lower (reduction of 16.0 tCO2e) in 2024/25 than 2023/24, 35% lower (reduction of 10.9 tCO2e) than 2019/20 baseline year.

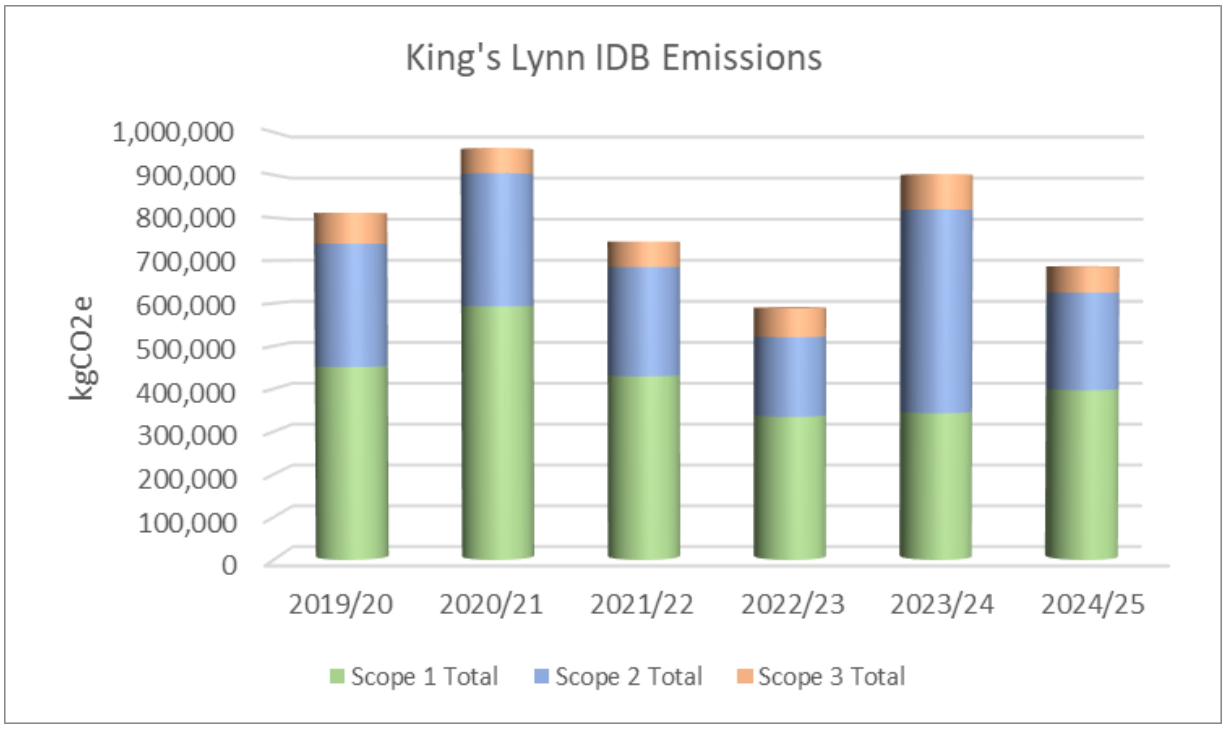
1.3 Data

		South Holland IDB kgCO2e Emissions					
Scope 1 - Direct Emissions		2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Fuel in Fleet Vehicles	White Diesel	37,719.4	35,165.4	28,498.6	39,639.0	34,153.6	24,889.2
	Unleaded	521.3	362.1	390.5	261.4	395.5	269.5
	Red Diesel	293,029.5	308,623.7	291,263.6	293,716.4	283,485.1	276,965.5
	Bio Oil	0.0	0.0	0.0	0.0	0.0	0.0
	Gas	0.0	0.0	0.0	0.0	0.0	0.0
Small Tools / Others	Unleaded						
	White Diesel						
	Red Diesel						
Offices	Oil	0.0	0.0	0.0	0.0	0.0	0.0
	Air con flouros	4,434.5	0.0	0.0	12,804.9	0.0	8,618.6
Pumping Station	Red Diesel Pump Engines or Generators	69.0	3,623.7	617.9	358.8	0.0	0.0
	Unleaded	0.0	0.0	0.0	0.0	0.0	0.0
Scope 2 - Indirect Emissions							
Electricity Emissions	Offices	3,571.7	3,607.1	3,525.3	2,909.3	3,213.1	2,851.0
	Pumping Station	269,673.5	236,270.6	109,585.1	112,449.2	293,814.8	149,573.0
Scope 3 - Other Indirect Emissions							
Electricty T&D Losses	Electricty T&D Losses	23,161.8	20,641.8	10,137.3	10,552.8	25,713.7	13,471.9
Business Travel	Private Car Business travel	7,833.9	6,395.6	5,654.1	4,950.6	5,652.2	6,651.7
	Rail	0.0	0.0	0.0	0.0	0.0	0.0
	Flying	0.0	0.0	0.0	0.0	0.0	0.0
Water Supply / Treatment	Water Supply	72.2	67.8	15.3	16.8	23.5	20.1
	Water treatment	0.0	0.0	0.0	0.0	0.0	0.0
Waste / recycling	Waste	72.6	72.5	106.5	82.6	245.2	114.0
	Recycling	0.0	0.0	0.0	0.0	6.8	0.0
	TOTAL	**640,159.4**	**614,830.1**	**449,794.3**	**477,741.9**	**646,703.5**	**483,424.4**
Scope 1 Total		**335,773.6**	**347,774.8**	**320,770.7**	**346,780.5**	**318,034.2**	**310,742.8**
Scope 2 Total		**273,245.2**	**239,877.7**	**113,110.5**	**115,358.5**	**297,027.8**	**152,424.0**
Scope 3 Total		**31,140.6**	**27,177.7**	**15,913.2**	**15,602.8**	**31,641.4**	**20,257.6**
% Change from Baseline year 2019/20							**-24**
% Change from 2023/24							**-25**

APPENDIX 2: KINGS LYNN IDB

1.1 Summary

The data shows that overall, Carbon Emissions in 2024/25 are 15% lower compared to our baseline year of 2019/20, a reduction of 125.1 tCO2e. The emissions are 24% lower compared to 2023/24, a reduction of 215 tCO2e.



1.2 Results

Scope 1

- Overall Emissions 16% higher (an increase of 53.6 tCO2e) in 2024/25 than 2023/24, 12% lower (reduction of 54.3 tCO2e) than 2019/20 baseline year.

Scope 2

- Overall Emissions 52% lower (a reduction of 247.6 tCO2e) in 2024/25 than 2023/24, 21% lower (a reduction of 59.6 tCO2e) than 2019/20 baseline year.

Scope 3

- Overall Emissions 26% lower (decrease of 21.1 tCO2e) in 2024/25 than 2023/24, 15% lower (a decrease of 11.1 tCO2e) than 2019/20 baseline year.

1.3 Data

		King's Lynn IDB kgCO2e Emissions					
Scope 1 - Direct Emissions		2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Fuel in Fleet Vehicles	White Diesel	30,152.8	28,556.1	27,229.1	24,647.1	26,889.0	27,636.2
	Unleaded	479.6	419.4	515.9	374.2	509.5	690.5
	Red Diesel	349,070.8	433,246.9	308,664.7	300,823.4	315,699.8	300,711.7
	Bio Oil	0.0	0.0	0.0	0.0	0.0	0.0
	Gas	16,831.9	19,506.6	18,294.9	2,560.0	0.0	0.0
Small Tools / Others	Unleaded	0.0	0.0	0.0	0.0	0.0	
	White Diesel	0.0	0.0	0.0	0.0	0.0	
	Red Diesel	0.0	0.0	0.0	0.0	0.0	
Offices	Oil	0.0	0.0	0.0	0.0	0.0	
	Air con flouros	8,869.0	0.0	75,153.1	0.0	0.0	68,229.7
Pumping Station	Red Diesel Pump Engines or Generators	46,213.8	111,774.8	0.0	6,872.4	538.2	0.0
	Unleaded	0.0	0.0	0.0	0.0	0.0	0.0
Scope 2 - Indirect Emissions							
Electricity Emissions	Offices	14,919.2	7,810.7	9,938.8	14,191.4	7,992.4	10,098.1
	Pumping Station	272,442.9	301,665.8	244,896.0	171,665.4	467,324.4	217,645.8
Scope 3 - Other Indirect Emissions							
Electricty T&D Losses	Electricty T&D Losses	24,358.4	26,630.9	22,839.0	17,001.8	41,148.2	20,129.0
Business Travel	Private Car Business travel	47,541.2	31,923.8	36,600.8	49,677.0	40,988.2	40,884.5
	Rail	120.3	27.8	117.9	91.6	78.6	142.9
	Flying	0.0	0.0	0.0	264.3	0.0	0.0
Water Supply / Treatment	Water Supply	293.7	281.8	42.7	73.2	53.1	48.2
	Water treatment	26.5	30.8	22.2	82.0	50.4	37.6
Waste / recycling	Waste	4.0	4.0	10.8	18.2	15.5	5.7
	Recycling	9.5	9.5	11.6	31.4	18.4	5.3
	TOTAL	**811,333.4**	**961,888.8**	**744,337.3**	**588,373.2**	**901,305.6**	**686,265.1**
Scope 1 Total		**451,617.8**	**593,503.7**	**429,857.6**	**335,277.1**	**343,636.5**	**397,268.1**
Scope 2 Total		**287,362.0**	**309,476.5**	**254,834.8**	**185,856.7**	**475,316.8**	**227,743.8**
Scope 3 Total		**72,353.5**	**58,908.6**	**59,644.9**	**67,239.4**	**82,352.4**	**61,253.2**
% Change from Baseline year 2019/20							**-15**
% Change from 2023/24							**-24**

1.4 Solar Panels

Pierpoint House commissioned solar panels in November 2022. During 2024-25, around 70.5% (37.04 MW) of our electricity consumption came directly from solar power. This avoided using 12.8tCO2e emissions, compared with using electricity directly from the Grid. We have installed 60 kWh batteries to increase our storage and therefore the amount we can consume, before it is fed into the grid.

The solar panels also fed a total of 24.6MW of excess solar electricity into the grid over the year. There is a large demand for electricity during the winter months, particularly around January, which is likely to be a result of the increased heating requirements of the office.

Whilst theoretically Pierpoint House should be entirely self-sufficient in electricity, due to the capacity of the batteries and the British weather, at times the office consumes energy from the grid in greater or lesser quantities. Grid usage is offset during sunnier periods with a greater supply of solar energy being fed back to the grid. The months of April, June, July, August 2024 and March 2025 were the key months for electricity production by the solar panels, as would be expected during the sunnier, warmer months.

1.5 Solar Panel vs. Grid Consumption

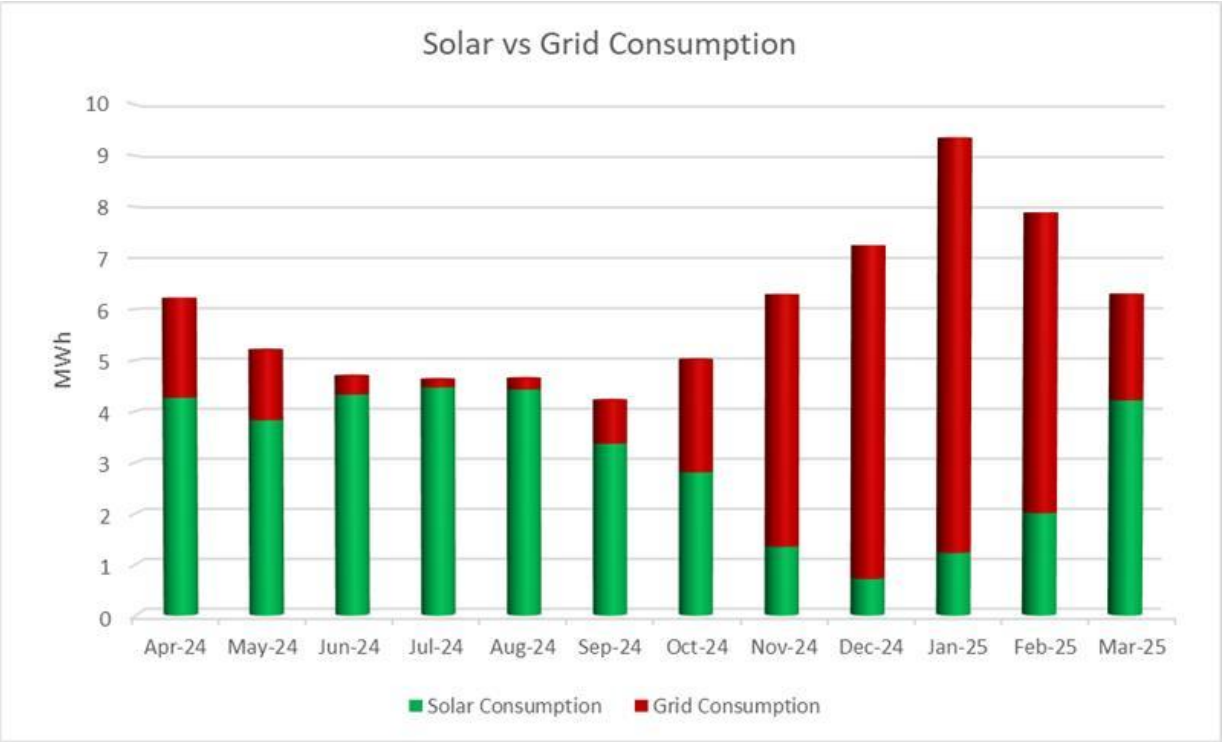


Figure A1: The above graph examines the average monthly electricity consumption of Pierpoint House. A larger proportion of solar electricity is produced in the summer months; however, the Grid is always used throughout the year. Grid energy is consumed more often in the winter months when solar energy production is less readily available.

1.6 Total Solar Electricity Production: Pierpoint House

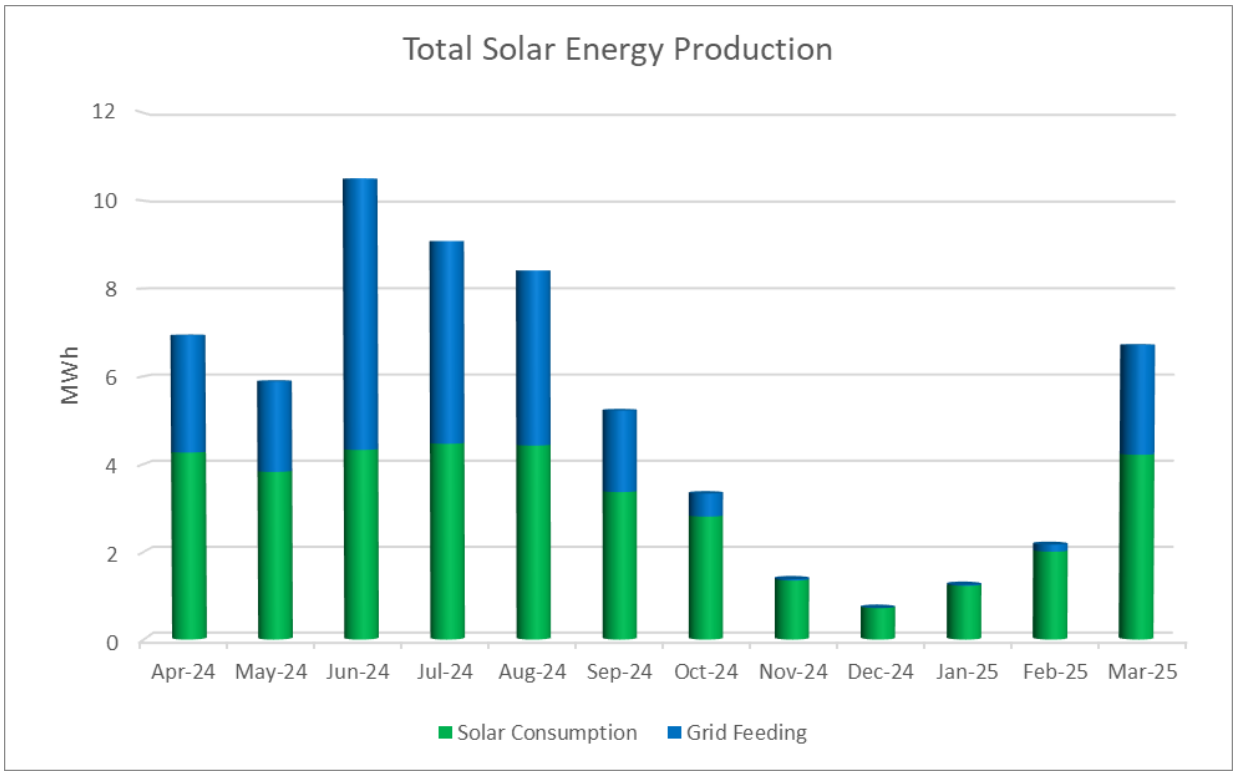
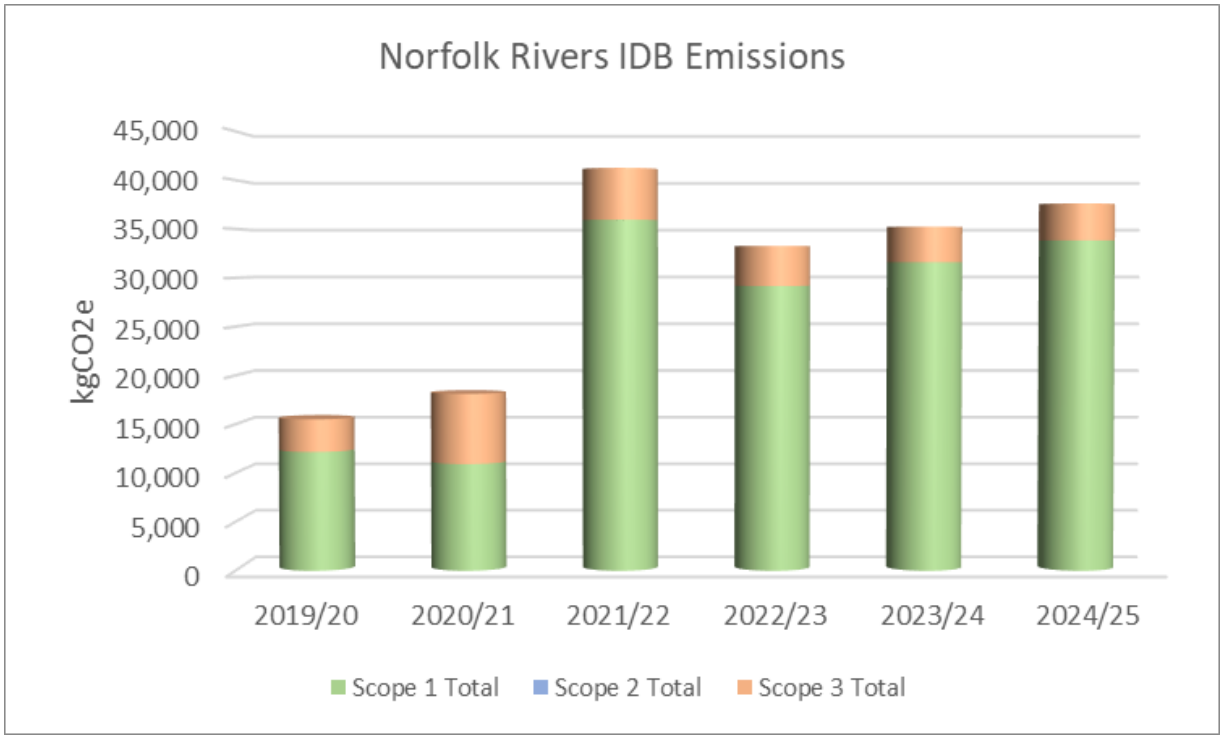


Figure A2: The graph shows the total electricity produced by the solar panels at Pierpoint House. The green bands illustrate the average monthly quantities of solar electricity used by the office. The blue bands indicate the quantity of electricity fed back into the grid.

APPENDIX 3: NORFOLK RIVERS IDB

1.1 Summary

The data shows that overall, Carbon Emissions in 2024/25 are 142% higher compared to our baseline year of 2019/20, an increase of 22.1 tCO2e. The emissions are 7% higher compared to 2023/24, an increase of 2.4 tCO2e.



1.2 Results

Scope 1

- Overall Emissions 7% higher (increase 2.2 of tCO2e) in 2024/25 than 2023/24, 177% higher (increase of 21.6 tCO2e) than 2019/20 baseline year.
- This is largely due to diesel use in fleet vehicles as the company's workforce expands.

Scope 2

- No Emissions as there are no Pumping Stations or offices

Scope 3

- Overall Emissions 3% higher (increase of 0.1 tCO2e) in 2024/25 than 2023/24, 13% higher (increase of 0.4 tCO2e) than 2019/20 baseline year.

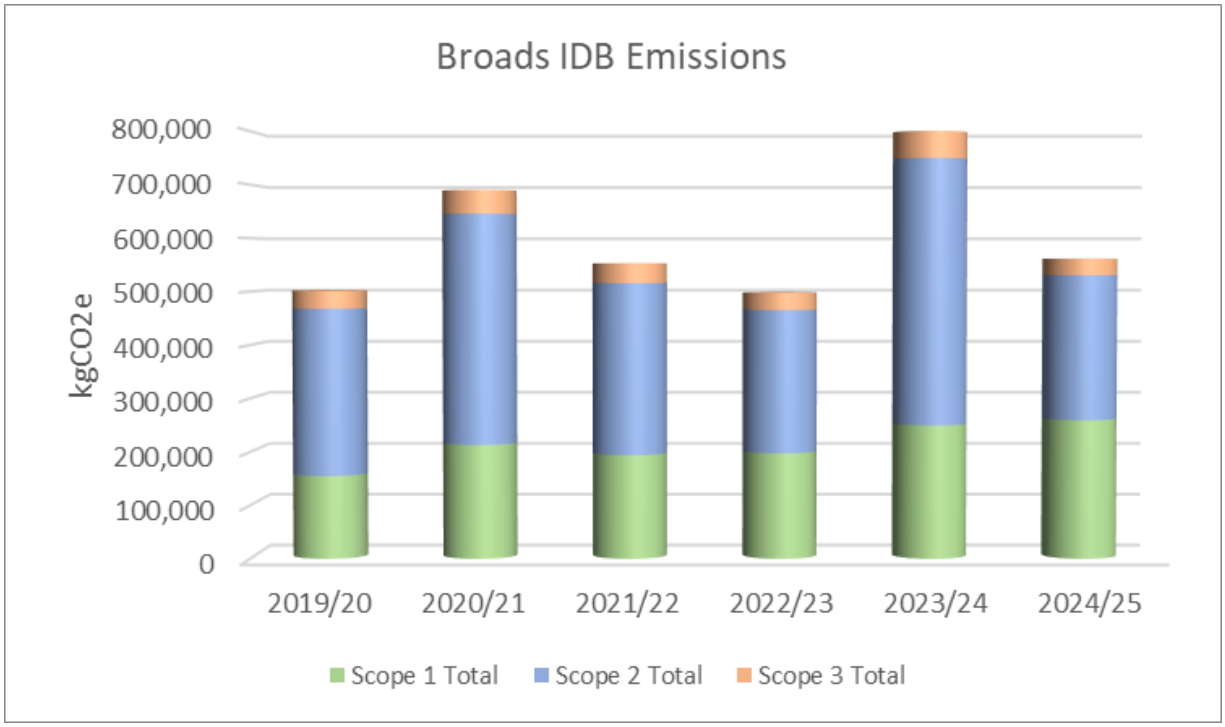
1.3 Data

		Norfolk Rivers IDB kgCO2e Emissions					
Scope 1 - Direct Emissions		2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Fuel in Fleet Vehicles	White Diesel	0.0	0.0	0.0	0.0	7,914.0	13,567.7
	Unleaded	0.0	0.0	108.8	99.4	0.0	109.5
	Red Diesel	12,194.0	10,959.3	35,273.8	29,068.3	23,633.9	20,150.3
	Bio Oil	0.0	0.0	550.0	0.0	0.0	0.0
	Gas	0.0	0.0	0.0	0.0	0.0	0.0
Small Tools / Others	Unleaded						
	White Diesel						
	Red Diesel						
Offices	Oil	0.0	0.0	0.0	0.0	0.0	0.0
	Air con flouros	0.0	0.0	0.0	0.0	0.0	0.0
Pumping Station	Red Diesel Pump Engines or Generators	0.0	0.0	0.0	0.0	0.0	0.0
	Unleaded	0.0	0.0	0.0	0.0	39.8	
Scope 2 - Indirect Emissions							
Electricity Emissions	Offices	0.0	0.0	0.0	0.0	0.0	0.0
	Pumping Station	0.0	0.0	0.0	0.0	0.0	0.0
Scope 3 - Other Indirect Emissions							
Electricty T&D Losses	Electricty T&D Losses	0.0	0.0	0.0	0.0	0.0	0.0
Business Travel	Private Car Business travel	3,345.4	7,195.3	5,280.1	4,092.9	3,641.3	3,766.9
	Rail	0.0	0.0	0.0	0.0	0.0	0.0
	Flying	0.0	0.0	0.0	0.0	0.0	0.0
Water Supply / Treatment	Water Supply	0.0	0.0	0.0	0.0	0.0	0.0
	Water treatment	0.0	0.0	0.0	0.0	0.0	0.0
Waste / recycling	Waste	0.0	0.0	0.0	0.0	0.0	0.0
	Recycling	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	**15,539.4**	**18,154.7**	**41,212.8**	**33,260.6**	**35,229.0**	**37,594.4**
Scope 1 Total		**12,194.0**	**10,959.3**	**35,932.7**	**29,167.7**	**31,587.7**	**33,827.5**
Scope 2 Total		**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Scope 3 Total		**3,345.4**	**7,195.3**	**5,280.1**	**4,092.9**	**3,641.3**	**3,766.9**
% Change from Baseline year 2019/20							**142**
% Change from 2023/24							**7**

APPENDIX 4: BROADS IDB

1.1 Summary

The data shows that overall, Carbon Emissions in 2024/25 are 12% higher compared to our baseline year of 2019/20, an increase of 59.7 tCO2e. The emissions are 30% lower compared to 2023/24, a decrease of 238.1 tCO2e.



1.2 Results

Scope 1

- Overall Emissions 4% higher (an increase of 9.7 tCO2e) in 2024/25 than 2023/24, 67% higher (increase of 104.5 tCO2e) than 2019/20 baseline year.
- Increased white and red diesel use due to rechargeable works for EA and CPE, this is increasing Scope 1 emissions from the baseline year and is likely to continue to do so as workload increases.

Scope 2

- Overall Emissions 46% lower (a decrease of 228.2 tCO2e) in 2024/25 than 2023/24, 13% lower (decrease of 42 tCO2e) than 2019/20 baseline year.

Scope 3

- Overall Emissions 39% lower (a decrease of 19.6 tCO2e) in 2024/25 than 2023/24, 8% lower (decrease of 2.8 tCO2e) than 2019/20 baseline year.

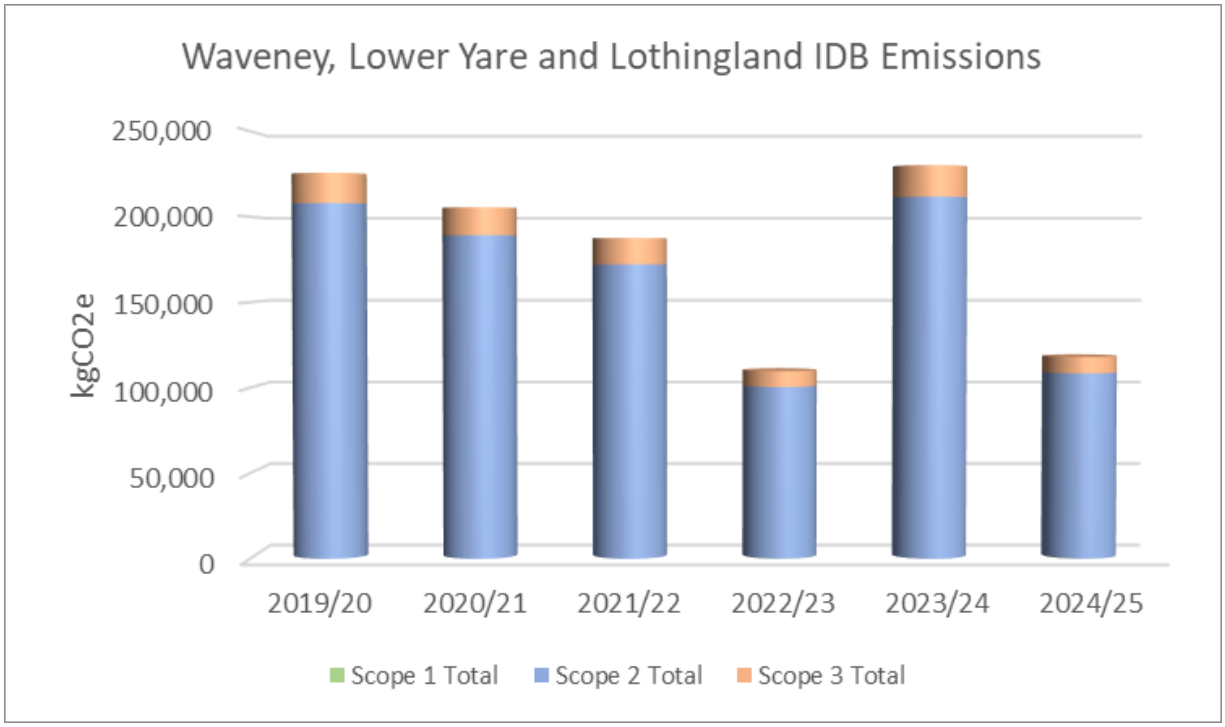
1.3 Data

		Broads IDB kgCO2e Emissions					
Scope 1 - Direct Emissions		2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Fuel in Fleet Vehicles	White Diesel	78,842.3	78,093.9	86,688.6	79,281.6	76,594.4	86,874.9
	Unleaded	110.4	324.2	0.0	0.0	69.0	261.3
	Red Diesel	76,134.9	129,937.4	107,308.4	118,083.8	136,214.3	171,810.8
	Bio Oil	0.0	0.0	0.0	137.5	0.0	0.0
	Gas	0.0	13.7	13.7	12.2	0.0	0.0
Small Tools / Others	Unleaded	211.7	189.1	95.7	253.0	588.8	221.8
	White Diesel	0.0	0.0	0.0	0.0	696.3	99.0
	Red Diesel	0.0	0.0	0.0	0.0	184.9	316.7
Offices	Oil	0.0	0.0	0.0	0.0	0.0	0.0
	Air con flouros	0.0	0.0	0.0	0.0	0.0	0.0
Pumping Station	Red Diesel Pump Engines or Generators	0.0	4,644.1	0.0	0.0	35,697.8	
	Unleaded	11.0	351.4	100.5	83.1	100.5	221.8
Scope 2 - Indirect Emissions							
Electricity Emissions	Offices	4,998.4	5,909.3	5,899.8	3,941.3	3,737.9	7,800.2
	Pumping Station	307,936.8	426,210.1	315,918.2	263,949.0	495,439.7	263,168.0
Scope 3 - Other Indirect Emissions							
Electricty T&D Losses	Electricty T&D Losses	26,526.1	37,184.5	28,842.2	24,506.0	43,213.8	23,949.4
Business Travel	Private Car Business travel	6,932.9	6,760.8	7,789.2	7,442.0	7,044.9	6,729.7
	Rail	0.0	0.0	0.0	0.0	0.0	0.0
	Flying	0.0	0.0	0.0	0.0	0.0	0.0
Water Supply / Treatment	Water Supply	0.0	0.0	0.0	0.0	0.0	0.0
	Water treatment	0.0	0.0	0.0	0.0	0.0	0.0
Waste / recycling	Waste	0.0	0.0	0.0	0.0	0.0	0.0
	Recycling	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	**501,704.6**	**689,618.6**	**552,656.2**	**497,689.5**	**799,582.5**	**561,453.8**
Scope 1 Total		**155,310.4**	**213,553.8**	**194,206.9**	**197,851.2**	**250,146.1**	**259,806.5**
Scope 2 Total		**312,935.2**	**432,119.5**	**321,818.0**	**267,890.3**	**499,177.7**	**270,968.2**
Scope 3 Total		**33,459.1**	**43,945.3**	**36,631.4**	**31,948.1**	**50,258.7**	**30,679.1**
% Change from Baseline year 2019/20							**12**
% Change from 2023/24							**-30**

APPENDIX 5: WAVENEY, LOWER YARE & LOTHINGLAND IDB

1.1 Summary

The data shows that overall, Carbon Emissions in 2024/25 are 48% lower compared to our baseline year of 2019/20, a reduction of 107.3 tCO2e. The emissions are 49% lower compared to 2023/24, a reduction of 111.8 tCO2e.



1.2 Results

Scope 1

- This is the third year there have been Scope 1 Emissions. These Emissions are 371% higher (increase of 0.1 tCO2e) in 2024/25 than 2023/24.
- This reflects the use of petrol used in hand tools. The values are so low, they are not visible on the above graph, however the extreme percentage increase reflects only 71 litres of unleaded petrol in total, equivalent to approximately 0.15tCO2e.

Scope 2

- Overall Emissions 49% lower (a decrease of 103.2 tCO2e) in 2024/25 than 2023/24, 48% lower (a decrease of 99.4 tCO2e) than 2019/20 baseline year.
- Electricity lower in 2024/25 due to drier conditions than that in the previous year and a substantial decrease from the baseline, likely due to more efficient use of Pumping Stations.

Scope 3

- Overall Emissions 48% lower (a decrease of 8.7 tCO2e) in 2024/25 than 2023/24, 46% lower (a decrease of 8 tCO2e) than 2019/20 baseline year.

The Scope 3 reduction is base solely on electricity transmission and distribution losses.

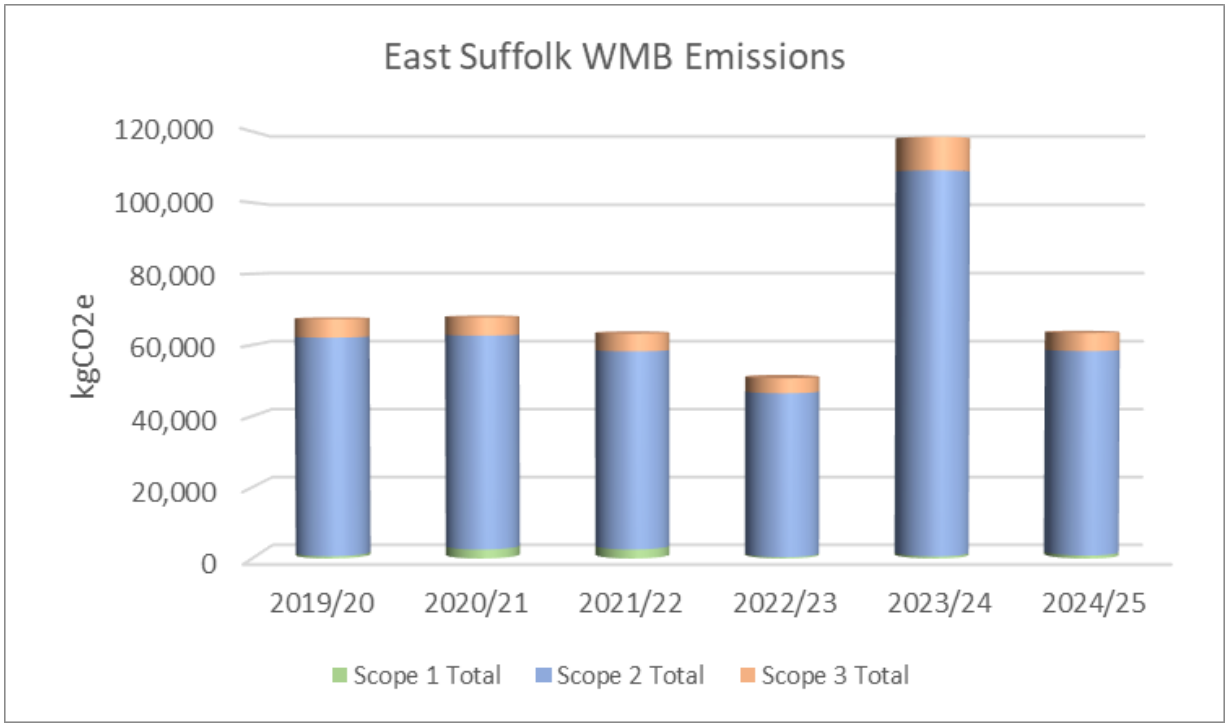
1.3 Data

		Waveney, Lower Yare & Lothingland IDB kgCO2e Emissions					
Scope 1 - Direct Emissions		2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Fuel in Fleet Vehicles	White Diesel	0.0	0.0	0.0	187.8	0.0	0.0
	Unleaded	0.0	0.0	0.0	0.0	39.8	187.4
	Red Diesel	0.0	0.0	0.0	0.0	0.0	0.0
	Bio Oil	0.0	0.0	0.0	0.0	0.0	0.0
	Gas	0.0	0.0	0.0	0.0	0.0	0.0
Small Tools / Others	Unleaded						
	White Diesel						
	Red Diesel						
Offices	Oil	0.0	0.0	0.0	0.0	0.0	0.0
	Air con flouros	0.0	0.0	0.0	0.0	0.0	0.0
Pumping Station	Red Diesel Pump Engines or Generators	0.0	0.0	0.0	0.0	0.0	0.0
	Unleaded	0.0	0.0	0.0	0.0	0.0	0.0
Scope 2 - Indirect Emissions							
Electricity Emissions	Offices	0.0	0.0	0.0	0.0	0.0	0.0
	Pumping Station	207,825.7	189,153.8	172,105.6	100,458.0	211,574.3	108,380.1
Scope 3 - Other Indirect Emissions							
Electricty T&D Losses	Electricty T&D Losses	17,616.5	16,277.0	15,424.6	9,189.7	18,316.0	9,579.1
Business Travel	Private Car Business travel	0.0	0.0	0.0	0.0	0.0	0.0
	Rail	0.0	0.0	0.0	0.0	0.0	0.0
	Flying	0.0	0.0	0.0	0.0	0.0	0.0
Water Supply / Treatment	Water Supply	0.0	0.0	0.0	0.0	0.0	0.0
	Water treatment	0.0	0.0	0.0	0.0	0.0	0.0
Waste / recycling	Waste	0.0	0.0	0.0	0.0	0.0	0.0
	Recycling	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	**225,442.1**	**205,430.8**	**187,530.2**	**109,835.5**	**229,930.1**	**118,146.6**
Scope 1 Total		**0.0**	**0.0**	**0.0**	**187.8**	**39.8**	**187.4**
Scope 2 Total		**207,825.7**	**189,153.8**	**172,105.6**	**100,458.0**	**211,574.3**	**108,380.1**
Scope 3 Total		**17,616.5**	**16,277.0**	**15,424.6**	**9,189.7**	**18,316.0**	**9,579.1**
% Change from Baseline year 2019/20							**-48**
% Change from 2023/24							**-49**

APPENDIX 6: EAST SUFFOLK WMB

1.1 Summary

The data shows that overall, Carbon Emissions in 2024/25 are 6% lower compared to our baseline year of 2019/20, a decrease of 3.9 tCO2e. The emissions are 46% lower compared to 2023/24, a reduction of 54.8 tCO2e.



1.2 Results

Scope 1

- Overall Emissions 41% higher (an increase of 0.3 tCO2e) in 2024/25 than 2023/24, 41% higher (an increase of 0.2 tCO2e) than 2019/20 baseline year.
- The values are so low, it is not visible on the above graph.

Scope 2

- Overall Emissions 47% lower (a decrease of 50.8 tCO2e) in 2024/25 than 2023/24, 6% lower (a decrease of 4 tCO2e) than 2019/20 baseline year.

Scope 3

- Overall Emissions 46% lower (a decrease of 4.3 tCO2e) in 2024/25 than 2023/24, 3% lower (a decrease of 0.1 tCO2e) than 2019/20 baseline year.

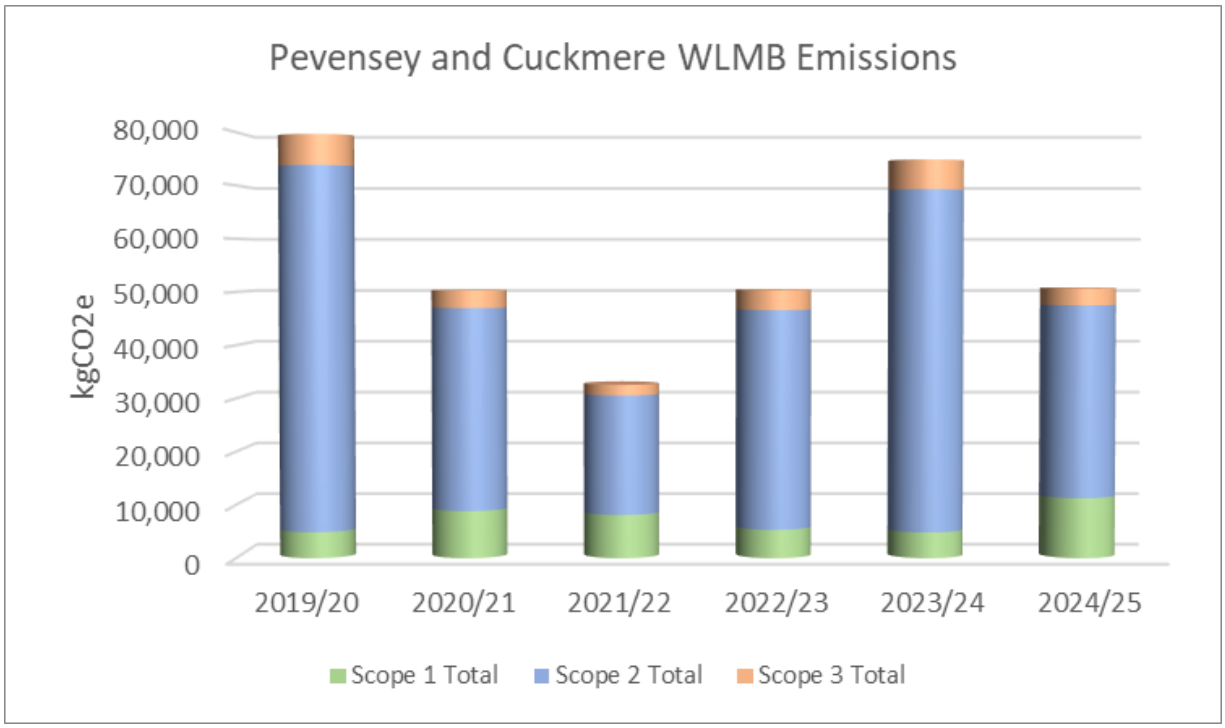
1.3 Data

		East Suffolk WMB kgCO2e Emissions					
Scope 1 - Direct Emissions		2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Fuel in Fleet Vehicles	White Diesel	0.0	0.0	0.0	0.0	0.0	0.0
	Unleaded	503.6	270.2	342.9	386.4	507.2	759.8
	Red Diesel	132.4	2,258.6	2,209.6	0.0	102.1	102.0
	Bio Oil	0.0	0.0	0.0	0.0	0.0	0.0
	Gas	0.0	0.0	0.0	11.0	0.0	0.0
Small Tools / Others	Unleaded						
	White Diesel						
	Red Diesel						
Offices	Oil	0.0	0.0	0.0	0.0	0.0	0.0
	Air con flouros	0.0	0.0	0.0	0.0	0.0	0.0
Pumping Station	Red Diesel Pump Engines or Generators	0.0	0.0	0.0	0.0	0.0	0.0
	Unleaded	0.0	10.8	0.0	0.0	0.0	0.0
Scope 2 - Indirect Emissions							
Electricity Emissions	Offices	0.0	0.0	0.0	0.0	0.0	0.0
	Pumping Station	61,511.9	60,152.7	55,745.2	46,128.7	108,323.6	57,517.8
Scope 3 - Other Indirect Emissions							
Electricty T&D Losses	Electricty T&D Losses	5,214.1	5,176.2	4,996.0	4,219.8	9,377.6	5,083.7
Business Travel	Private Car Business travel	0.0	0.0	0.0	0.0	0.0	0.0
	Rail	0.0	0.0	0.0	0.0	0.0	0.0
	Flying	0.0	0.0	0.0	0.0	0.0	0.0
Water Supply / Treatment	Water Supply	0.0	0.0	0.0	0.0	0.0	0.0
	Water treatment	0.0	0.0	0.0	0.0	0.0	0.0
Waste / recycling	Waste	0.0	0.0	0.0	0.0	0.0	0.0
	Recycling	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	**67,362.0**	**67,868.5**	**63,293.8**	**50,745.8**	**118,310.5**	**63,463.3**
Scope 1 Total		**636.0**	**2,539.6**	**2,552.5**	**397.4**	**609.3**	**861.8**
Scope 2 Total		**61,511.9**	**60,152.7**	**55,745.2**	**46,128.7**	**108,323.6**	**57,517.8**
Scope 3 Total		**5,214.1**	**5,176.2**	**4,996.0**	**4,219.8**	**9,377.6**	**5,083.7**
% Change from Baseline year 2019/20							**-6**
% Change from 2023/24							**-46**

APPENDIX 7: PEVENSEY & CUCKMERE WLMB

1.1 Summary

The data shows that overall, Carbon Emissions in 2024/25 are 36% lower compared to our baseline year of 2019/20, a reduction of 28.9 tCO2e. The emissions are 32% lower compared to 2023/24, a decrease of 24.1 tCO2e.



1.2 Results

Scope 1

- Overall Emissions 133% higher (an increase of 6.5 tCO2e) in 2024/25 than 2023/24, 133% higher (an increase of 6.4 tCO2e) than 2019/20 baseline year.
- Scope 1 emissions have increased over all years due to the fuel required for plant hire usage for works undertaken on the River Cuckmere in 2024.

Scope 2

- Overall Emissions 44% lower (a decrease of 28.2 tCO2e) in 2024/25 than 2023/24, 47% lower (a reduction of 32.6 tCO2e) than 2019/20 baseline year.

Scope 3

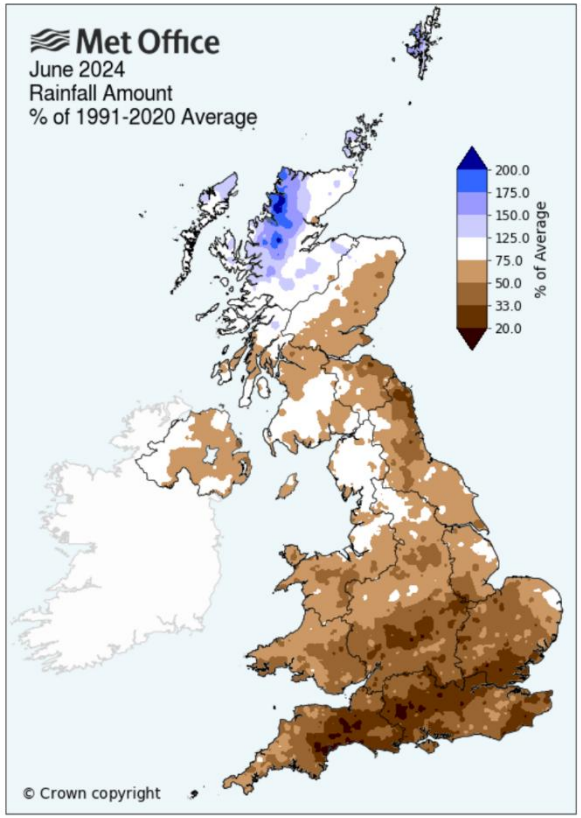
- Overall Emissions 43% lower (a decrease of 2.4 tCO2e) in 2024/25 than 2023/24, 45% lower (a reduction of 2.6 tCO2e) than 2019/20 baseline year.

1.3 Data

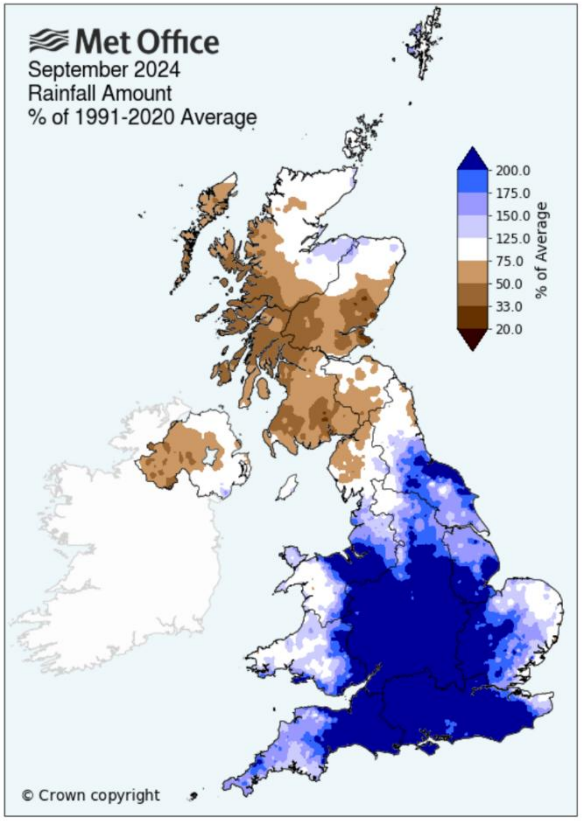
		Pevensey WLMB kgCO2e Emissions					
Scope 1 - Direct Emissions		2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Fuel in Fleet Vehicles	White Diesel	4,891.3	8,799.7	8,028.5	5,358.1	4,600.1	11,214.2
	Unleaded	0.0	78.6	106.4	0.0	248.9	93.3
	Red Diesel	0.0	0.0	0.0	0.0	0.0	0.0
	Bio Oil	0	0.0	0.0	0.0	0.0	0.0
	Gas	0.0	0.0	0.0	0.0	0.0	0.0
Small Tools / Others	Unleaded						
	White Diesel						
	Red Diesel						
Offices	Oil	0.0	0.0	0.0	0.0	0.0	0.0
	Air con flouros	0.0	0.0	0.0	0.0	0.0	0.0
Pumping Station	Red Diesel Pump Engines or Generators	0.0	0.0	0.0	0.0	0.0	0.0
	Unleaded	0.0	0.0	0.0	0.0	0.0	0.0
Scope 2 - Indirect Emissions							
Electricity Emissions	Offices	0.0	0.0	0.0	0.0	0.0	0.0
	Pumping Station	68,848.0	38,135.7	22,459.4	41,269.3	64,383.4	36,210.5
Scope 3 - Other Indirect Emissions							
Electricty T&D Losses	Electricty T&D Losses	5,835.9	3,281.6	2,012.9	3,775.2	5,573.7	3,200.4
Business Travel	Private Car Business travel	0.0	0.0	0.0	0.0	0.0	0.0
	Rail	0.0	0.0	0.0	0.0	0.0	0.0
	Flying	0.0	0.0	0.0	0.0	0.0	0.0
Water Supply / Treatment	Water Supply	0.0	0.0	0.0	0.0	0.0	0.0
	Water treatment	0.0	0.0	0.0	0.0	0.0	0.0
Waste / recycling	Waste	0.0	0.0	0.0	0.0	0.0	0.0
	Recycling	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	**79,575.3**	**50,295.6**	**32,607.1**	**50,402.6**	**74,806.0**	**50,718.4**
Scope 1 Total		**4,891.3**	**8,878.3**	**8,134.8**	**5,358.1**	**4,849.0**	**11,307.5**
Scope 2 Total		**68,848.0**	**38,135.7**	**22,459.4**	**41,269.3**	**64,383.4**	**36,210.5**
Scope 3 Total		**5,835.9**	**3,281.6**	**2,012.9**	**3,775.2**	**5,573.7**	**3,200.4**
% Change from Baseline year 2019/20							**-36**
% Change from 2023/24							**-32**

APPENDIX 8: Maps showing anomalies relative to a 1991-2020 reference period for precipitation (%) The darker shading indicates the greater departure from average. Credit: Met Office, Exeter, UK.

Rainfall 1991 - 2020 anomaly
June 2024



Rainfall 1991 - 2020 anomaly
September 2024



Rainfall 1991 - 2020 anomaly
March 2025