West Suffolk Council

West Suffolk Council Environmental Statement 2021-2022

Action on Climate Change
West Suffolk Council

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1. Introduction

This report is a summary of the environmental impact from the activities West Suffolk Council (WSC) undertook to manage and reduce its carbon emissions during the year ending 31 March 2022.

After the declaration of an Environment and Biodiversity Emergency in West Suffolk in September 2019, West Suffolk Council launched an Environment and Climate Change task force to evaluate current progress and develop new avenues to help reduce greenhouse gas emissions in line with current aspirations. The task force's recommendations were confirmed by Cabinet and West Suffolk Council agreed a net zero emissions by 2030 target with carbon budgeting periods agreed to measure performance towards this target – see Table 1. The Environmental Management Group has taken the outcomes of the task force and developed an action plan to achieve them. The Environmental Management Group has cross council membership with progress also included in the annual report.

Table 1 shows the carbon budget periods set out in West Suffolk Council's Environment and Climate Emergency Declaration and measured in tonnes Carbon Dioxide equivalent (tCO_2e).

Budget period	Period	Annual emissions at the end of period	Emissions budget for the period
First	April 2020 to March 2023	4,675 tCO_2e per year	18,700 tCO_2e
Second	April 2023 to March 2026	2,484 tCO_2e per year	8,292 tCO_2e
Third	April 2026 to March 2030	840 tCO_2e per year	2,520 tCO_2e
Fourth	2030-31	Net zero emissions	

This statement focuses on the council's own emissions. There is also a significant amount of work which contributes to improving the environment across the district which is not covered in this statement. This work is carried out both by the council directly and in conjunction with partners. More information can be found on the council's webpage Protecting our environment.

Impact of COVID-19

Due to the exceptional nature of the impacts from COVID-19, we have compared emissions resulting from council activity in the past year to 2019-20 to give a clear impression of progress made towards meeting our net zero aspiration. While there has been an increase in emissions compared to 2020-21 the council is making good progress in reducing emissions. New working practices such as agile working and reduced staff travel have seen emissions from such areas remain low and the council aims to retain the environmental benefits of this way of working. Wider benefits also include improved wellbeing from agile working and reduced costs for energy and fuel, a matter if increasing importance. Finally, whilst reduced staff travel clearly benefits the environment, we recognise some emissions are displaced from council buildings to staff homes.

Overview of environmental performance during 2021-22

41%

Reduction in total emissions compared to 2010 baseline

Down 15% compared to 2019-20

138%

Increase in renewable energy generated compared to 2012

Up 41% compared to 2019-20

13%

Reduction in total owned vehicle emissions compared to 2010-11 baseline

Down by 9% compared to 2019-20

43%

Reduction in total water consumption compared to baseline

35% Reduction compared to 2019-20

67

Electric vehicles can be charged at the same time using public chargers installed by West Suffolk Council

Energy delivered to drivers powered 353,170miles

82%

Recycling rate, up 51% compared to 2019-20

Total West Suffolk House waste down 58% compared to 2012 baseline and down 56% compared to 2019-20

560

Hedge plants and 318 trees planted during 2021-22

6

Green Flag status parks held during 2021-22

68%

Less business travel compared to 2010 baseline

Business travel down 51% compared to 2019-20

Greenhouse gas emissions arising from West Suffolk Council activities

Target: Reduce greenhouse gas emissions from West Suffolk Council (WSC) activity to net zero by 2030. Measured in tonnes Carbon Dioxide equivalent (tCO_2e).

West Suffolk Council and Abbeycroft Leisure	
Baseline emissions 2010	8,215 tCO_2e
Annual emissions in 2021-22	4,859 tCO_2e

Carbon Dioxide equivalent (CO_2e) is a unit of measurement used to indicate the global warming potential of a greenhouse gas, expressed in terms of the global warming potential of one unit of Carbon Dioxide. It is used to evaluate the releasing (or avoiding releasing) of different greenhouse gases against a common basis.

We include emissions that arise from buildings and transportation. This includes the leisure centres operated by Abbeycroft Leisure (ACL) and other operational buildings such as the Apex; it also includes buildings that we purchase energy for but excludes buildings that we own and are leased to local businesses who pay their own energy bills. The figures do not include the staff commuting journeys to our sites.

Despite an increase in emissions compared to 2020-21 where exceptional circumstances arising from the COVID-19 pandemic resulted in building closures and travel restrictions, the combined emissions from WSC and ACL activity has continued to decrease overall. When compared to 2019-20, emissions decreased by 15 per cent – see Figure 1 below. Of this total, there has been a 10 per cent decrease in emissions from council activity and a 22 per cent decrease in emissions from Abbeycroft Leisure compared to 2019-20 – see Figure 2 on the next page. Finally, Figure 3 shows a breakdown of total emissions by source.

Figure 1 – Combined greenhouse gas emissions by year

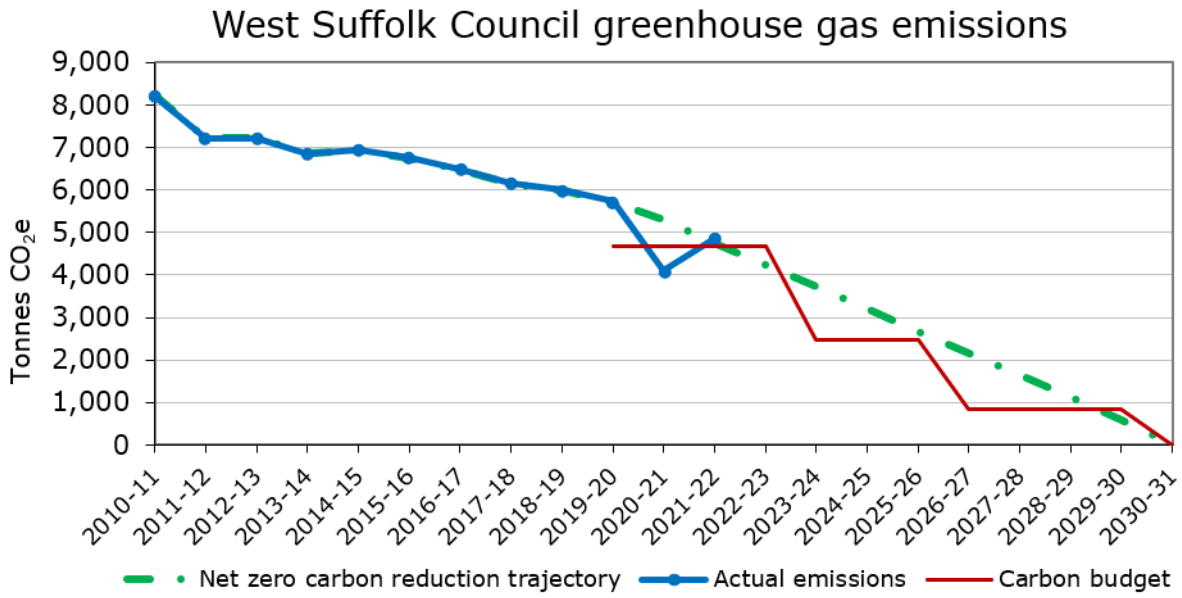


Figure 2 – Greenhouse gas emissions by organisation over time

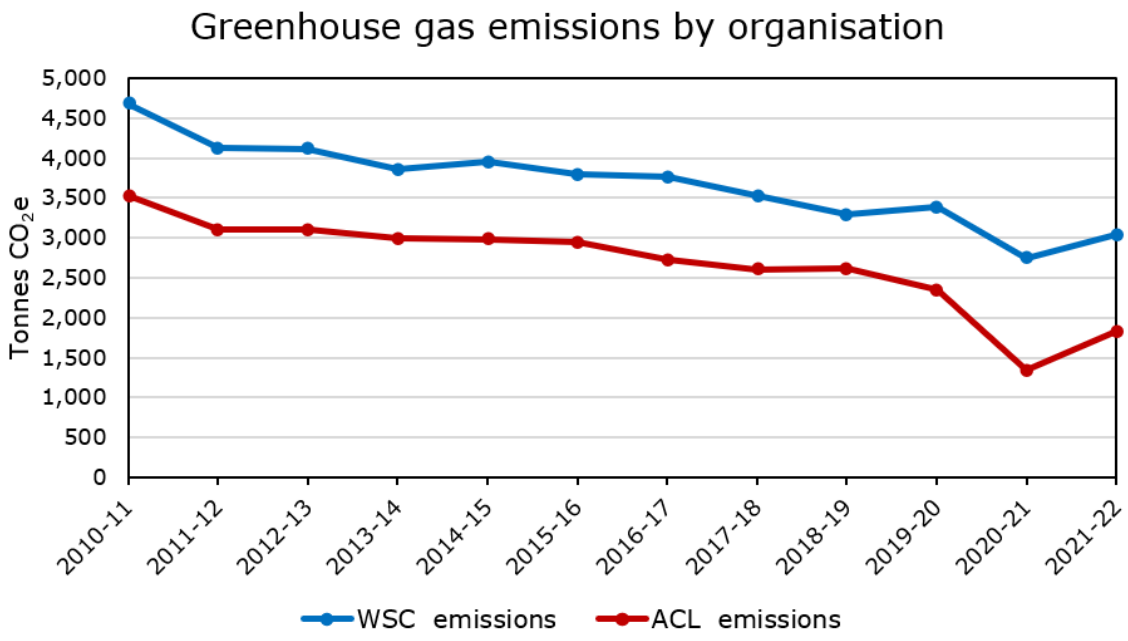
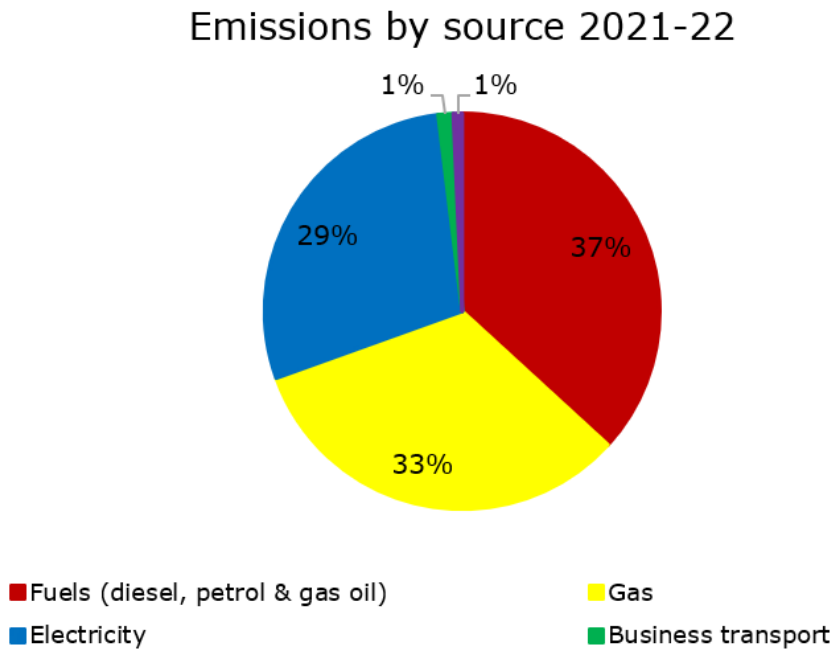


Figure 3 – Total greenhouse gas emissions by source



Notes

The gradual 'decarbonisation' of grid electricity is a key component of the UK emissions reduction targets. Emissions arising from grid supplied electricity dropped by 9 per cent in 2021 compared to 2020 data. Appendix 1 contains information on emission reporting scopes.

2. Building energy use

Target: Meet the net zero emissions target we need to reduce energy consumption from buildings operated in 2019-20 by 50 per cent by 2025.

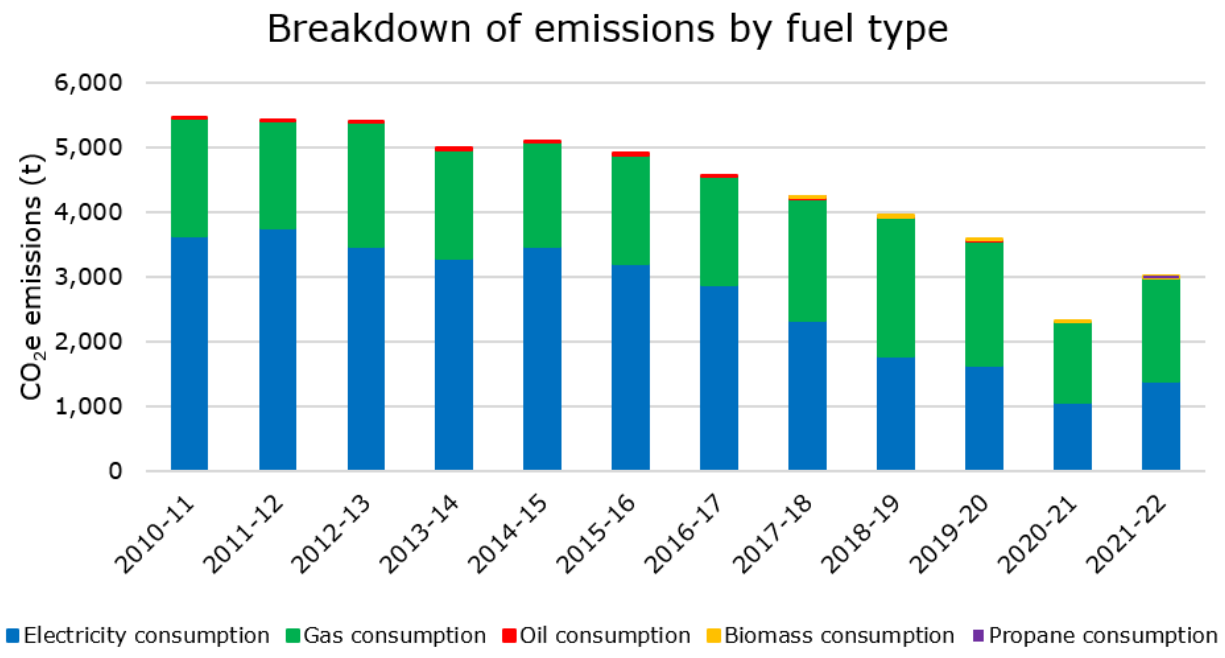
West Suffolk Council and Abbeycroft Leisure	
Emissions 2010	5,436 tCO_2e
Emissions in 2021-22	2,994 tCO_2e

Emissions arising from all gas, electricity and biomass consumption are included in this section. Biomass is a fuel stock comprised of wood chips. Combined emissions from WSC and ACL buildings have continued to decrease following previous years when excluding 2020-21 due to building closures. In comparison to 2019-20, total emissions from buildings are down by 16 per cent and down by 45 per cent compared to 2010. Figure 4 shows the overall decrease in emissions over time.

The decrease in emissions compared to 2019-20 is comprised of a decrease in emissions from both gas and electricity by 17 per cent and 15 per cent respectively. This year, emissions from propane consumption at West Suffolk Operational Hub (WSOH) have been included – use of propane resulted in 9.8 tCO_2e in 2021-22.

Since October 2020, the council has purchased 100 per cent renewable energy generated from solar, wind and hydro sources. More information on the fuel mix can be found at Ecotricity – Our fuel mix. Under dual emissions reporting, the council's switch to purchasing renewable energy saved 789 tCO_2e. However, we report emissions from electricity consumption using location-based grid average emission factors as per Streamlined Energy and Carbon Reporting (SECR) legislation.

Figure 4 – Emissions from building utility consumption over time



3. Renewable energy

Target: Increase the amount of renewable energy generated each year.

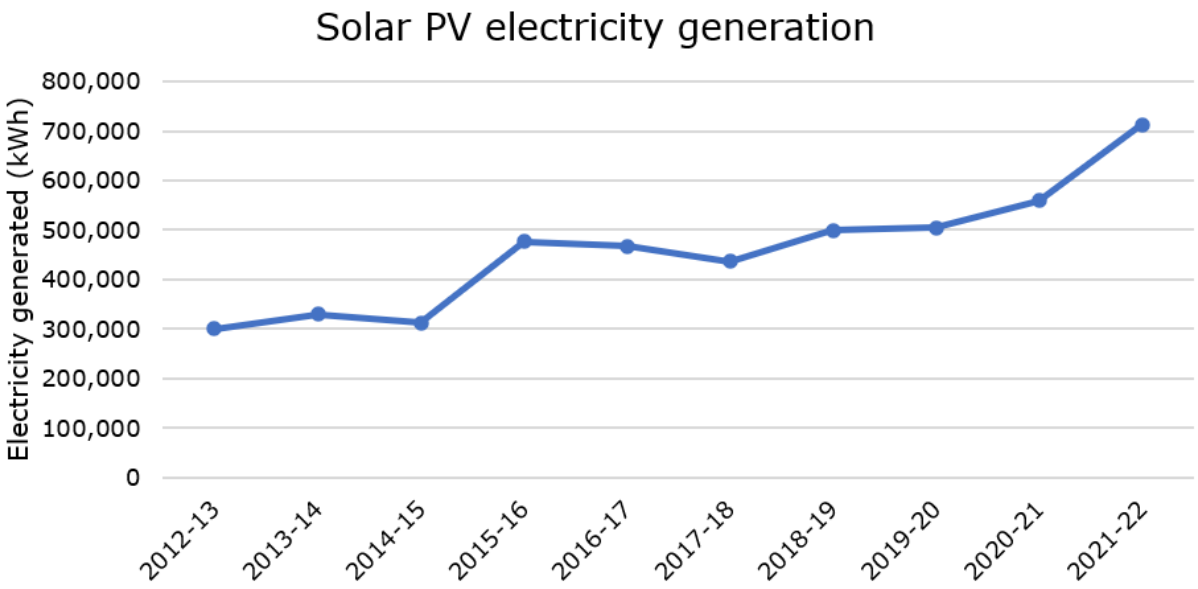
Renewable energy generated in kilowatt hours (kWh)	
Baseline generation in 2012-13	300,220 kWh
Generation in 2021-22	413,064 kWh

The council has installed solar PV systems to reduce its electricity costs and carbon emissions. The energy generated by all systems installed on council offices, depots and leisure centres is totalled in this section.

The total capacity of the PV systems installed on West Suffolk Council property and leisure centres stands at 1,088 kilowatt peak (kWp) and they generated 713,064 kilowatt hours (kWh) of electricity during 2021-22, which is enough to power 201 average sized homes for the year – more than previous years.

Figure 5 below shows the amount of electricity generated per year which is generally increasing over time.

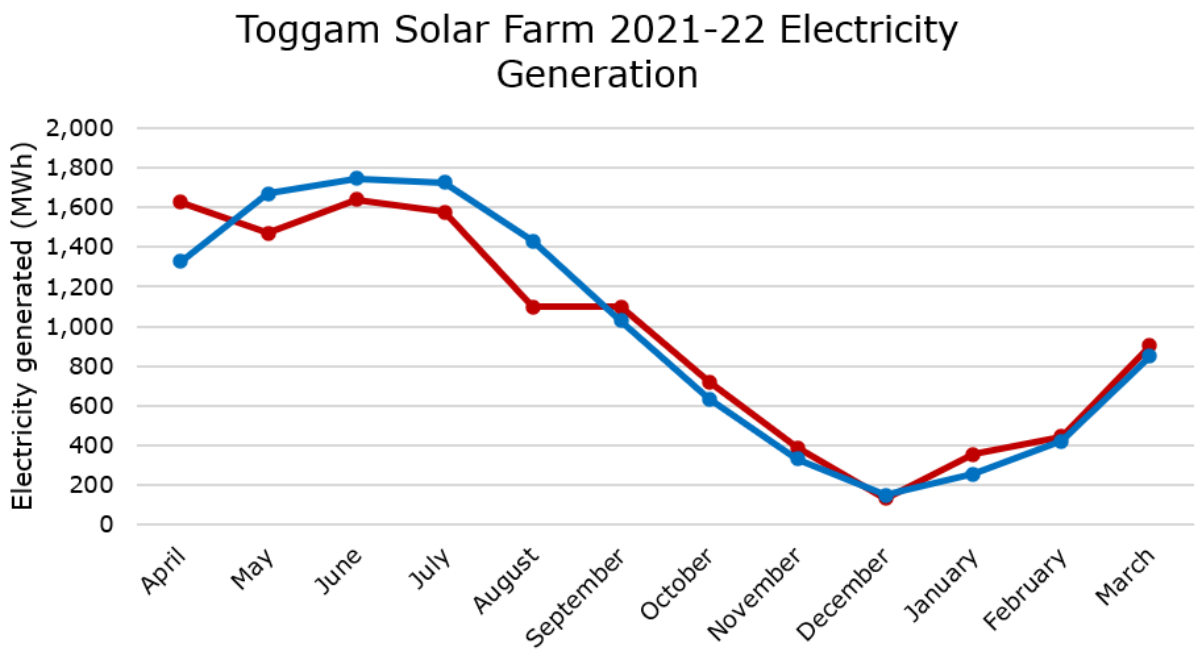
Figure 5 – Annual renewable electricity generation on council properties



Toggam solar farm

2021-22 was another good year for electricity generation at the solar farm. Toggam Solar Farm generated 11,441 megawatt an hour (MWh) of electricity compared to a target of 11,564 MWh. This was marginally lower than the previous year due to lower output during the summer months. The electricity that is sold into the National Grid is enough to power around 3,205 homes and offset the carbon dioxide emissions from 1,457 cars. The value of the electricity generated from the site was worth £1.29 million for the year. Figure 6 shows the target electricity generation along with actual generation for Toggam Solar Farm in 2021-22.

Figure 6 – Chart showing electricity generation during 2021-22



Public Sector Decarbonisation Scheme

During 2021, WSC secured funding from the Public Sector Decarbonisation Scheme (PSDS) to install energy efficiency measures within its buildings. A total of £1.43 million was awarded from central Government, supported by £370,000 from WSC to pay for the installation of additional solar photovoltaic (PV) panels at Vicon House, Provincial House and Mildenhall Hub, thermally efficient glazing at Provincial House, air source heat pumps at Bury St Edmunds Bus Station and Nowton Park Visitor Centre and a battery energy storage system at West Suffolk House. Further details can be found in the press release West Suffolk Council – Works begin across West Suffolk to cut carbon emissions.

4. Fuel use

Target: Reduce the emissions from total fuel consumption from the baseline year in 2010.

Fuel use	
Consumption in 2019-20	773,431 litres
Consumption in 2021-22	719,495 litres

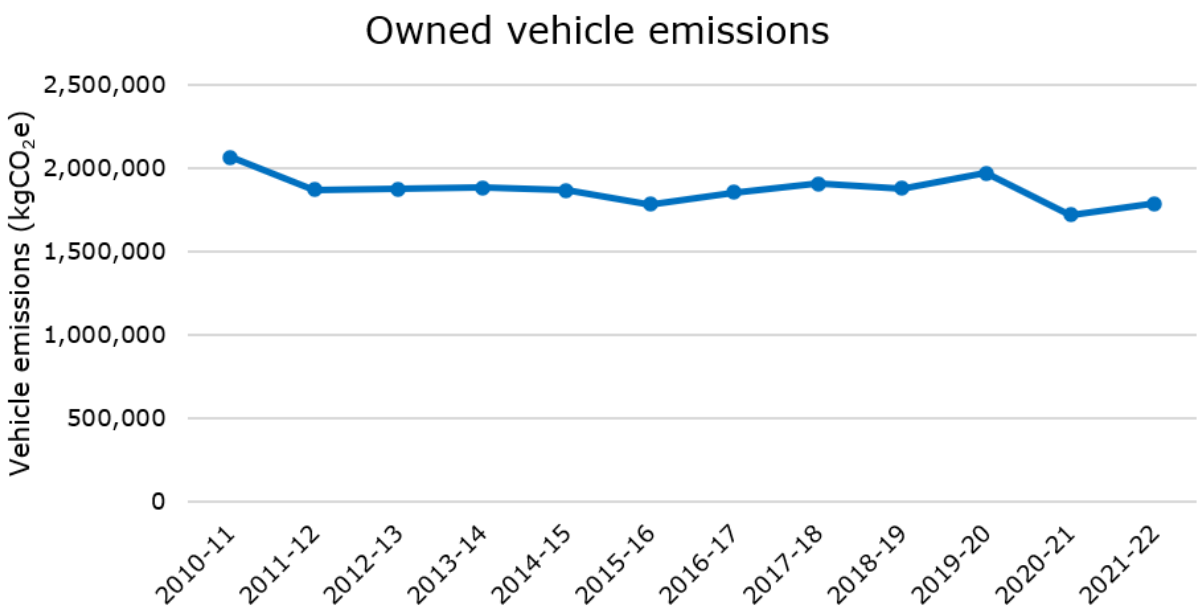
This section includes the total litres of fuel used in, but not limited to, refuse collection vehicles, road sweepers, grounds maintenance vehicles, petrol or diesel bought using fuel cards, and industrial mobile machinery.

Total emissions from fuel use have decreased by 9 per cent compared to 2019-20 and fuel use has decreased by 7 per cent over the same period. There were 99 tCO_2e of out-of-scope emissions from fuel use in 2021-22. See Appendix 1 for more details on out-of-scope reporting.

The council's electric van has travelled 4,782 miles during 2021-22, producing zero point of use emissions. Driving the electric van has saved 528 $kgCO_2e$ compared to driving the same distance using a similarly sized diesel equivalent.

Towards the end of 2021-22, a dedicated decarbonisation fund was approved, part of which will be used to purchase electric fleet vehicles and charging infrastructure. Starting with supervisors' vans, electric equivalents will be purchased when these vehicles are due for replacement. A press release containing further details can be found at West Suffolk Council – A budget to help West Suffolk be greener, healthier, and more prosperous is approved.

Figure 7 – Chart showing owned vehicle emissions by year



5. Business travel

Target: Reduce the amount of grey fleet miles from the baseline year in 2010.

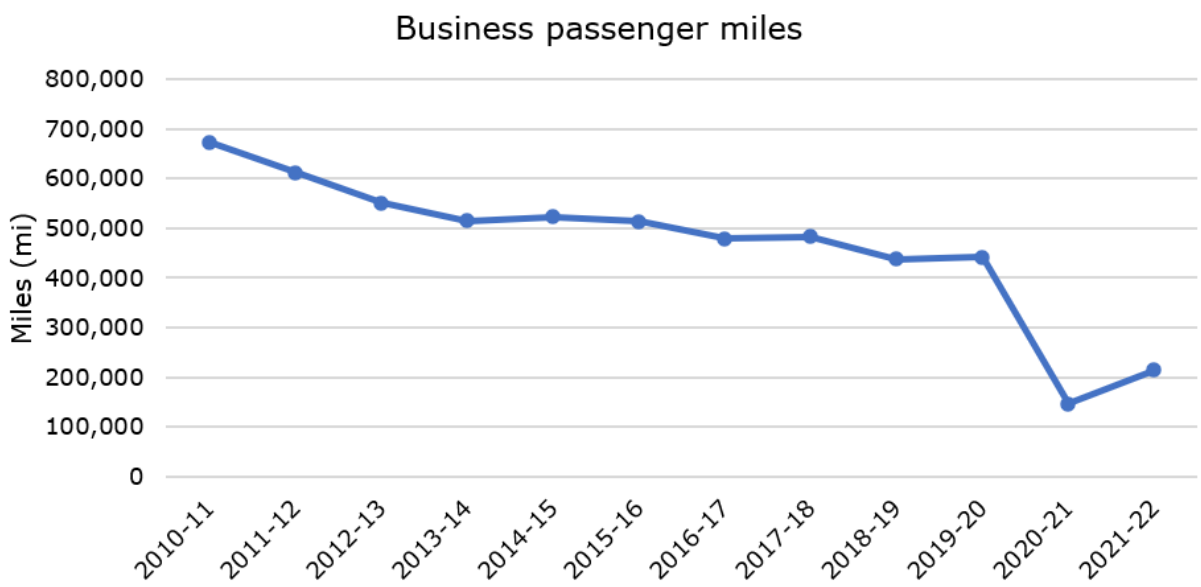
Grey fleet includes vehicles that are owned and used by council employees.

Distance travelled	
Baseline 2010	673,285 miles
Distance travelled in 2021-22	214,849 miles

Business travel includes staff and councillor journeys, pool car use and other owned or leased vehicles. Business travel has decreased by 51 per cent compared to 2019-20, as shown in Figure 8 below, and the total miles travelled remains 68 per cent lower than the 2010 baseline. Business travel contributed 59 tCO_2e to the council's total emissions. Of the total distance travelled, private car use (grey fleet) decreased by 48 per cent and pool car use decreased by 91 per cent compared to 2019-20. During 2021-22, 2.4 per cent of total staff milage claims were for journeys taken in an electric vehicle and the council aims to increase this percentage over time.

Although the council doesn't own the vehicles used for business mileage, it is responsible for the emissions created from business activity. These emissions are reported in scope three. Appendix 1 contains more details on emissions scopes. The continued use of agile working and technology such as Microsoft Teams has helped to keep staff mileage lower than previous years, excluding 2020-21. The council will continue to use these arrangements, helping to minimise emissions from business travel.

Figure 8 – Chart showing business passenger miles travelled



Public transport

Staff used public transport to cover 3,879 miles during 2021-22 which was 98 per cent greater than last year. Use of public transport produced 229 $kgCO_2e$ during 2021-22.

6. Water consumption

Target: Reduce the amount of water used in council activities from the baseline year in 2010.

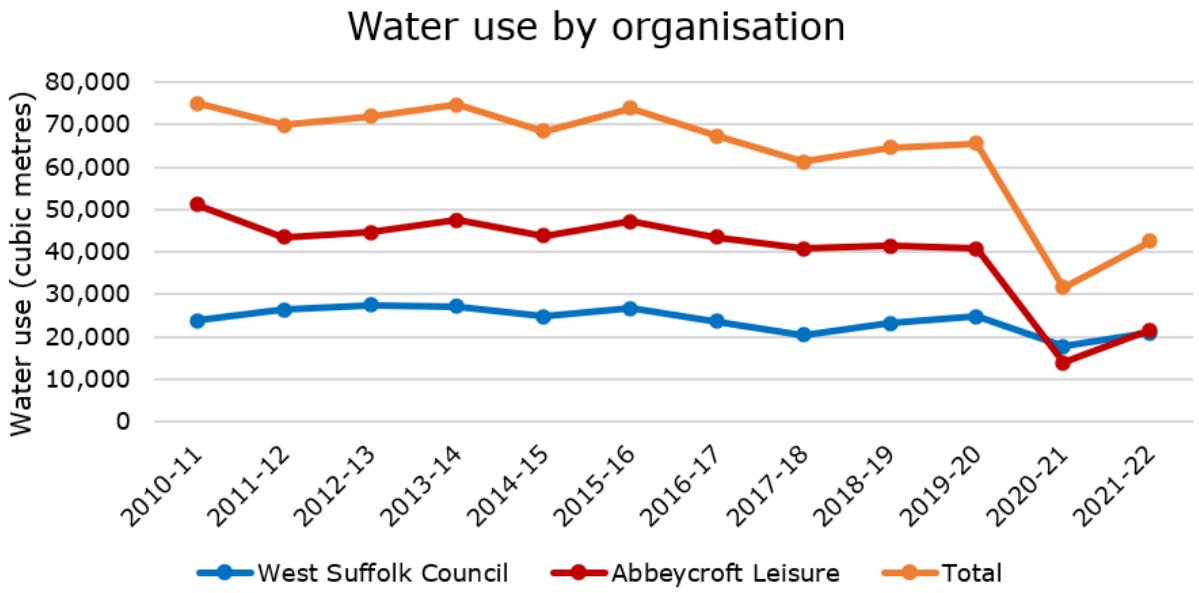
Water consumption (m3)	
West Suffolk Council baseline consumption in 2010	23,827
West Suffolk Council consumption in 2021-22	20,899
Abbeycroft Leisure baseline consumption in 2010	51,076
Abbeycroft Leisure consumption in 2021-22	21,574
Total baseline consumption in 2010	74,903
Total consumption in 2021-22	**42,473**

This section includes the total of water consumption from all WSC owned and operated properties, as well as those run by ACL. Total water consumption contributed 18 tCO_2e during 2021-22.

Total water consumption has decreased by 43 per cent compared to the 2010 baseline and consumption has decreased by 35 per cent compared to 2019-20. COVID-19 has had a significant impact on water consumption due to building closures particularly at leisure centres.

This is comprised of a decrease in water consumption by both WSC and ACL by 16 per cent and 47 per cent respectively. Figure 9 shows the change in total water consumption over time and by organisation. During 2022-23, we plan to review water consumption at publicly accessible sites such as toilets and seek to install water saving fittings.

Figure 9 – Chart showing total water consumption by year



7. Office waste

Target: To increase the office waste recycling rate and decrease the total waste arising from council operations from the baseline year 2018.

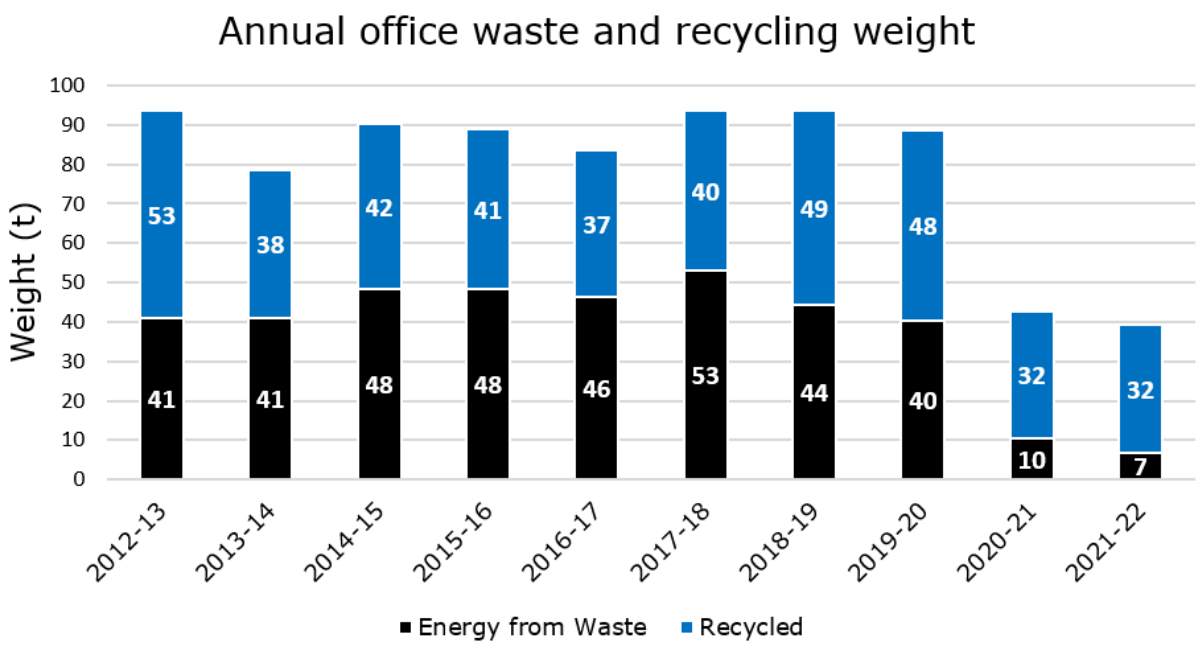
Waste arisings	Tonnes (t) or percentage
Baseline 2018	93.53 t
Waste arisings in 2021-22	39.18 t
Recycling rate 2021-22	82.34 per cent

During 2021-22, the total amount of waste generated was 39.18 tonnes. Of this, residual waste accounted for 6.92 tonnes and recycling was 32.26 tonnes.

The proportion of waste that is recycled has increased for the fourth consecutive year to 82.34 per cent. This represents an increase in the recycling rate of 9 per cent compared to 2019-20.

Figure 10 shows the proportion of waste recycled compared to that sent to the Energy from Waste (EfW) centre each year. EfW aims to move waste up the waste hierarchy, unlocking useful electricity from waste which would otherwise have gone to landfill. More information on the Suffolk EfW facility can be found at Suffolk EfW.

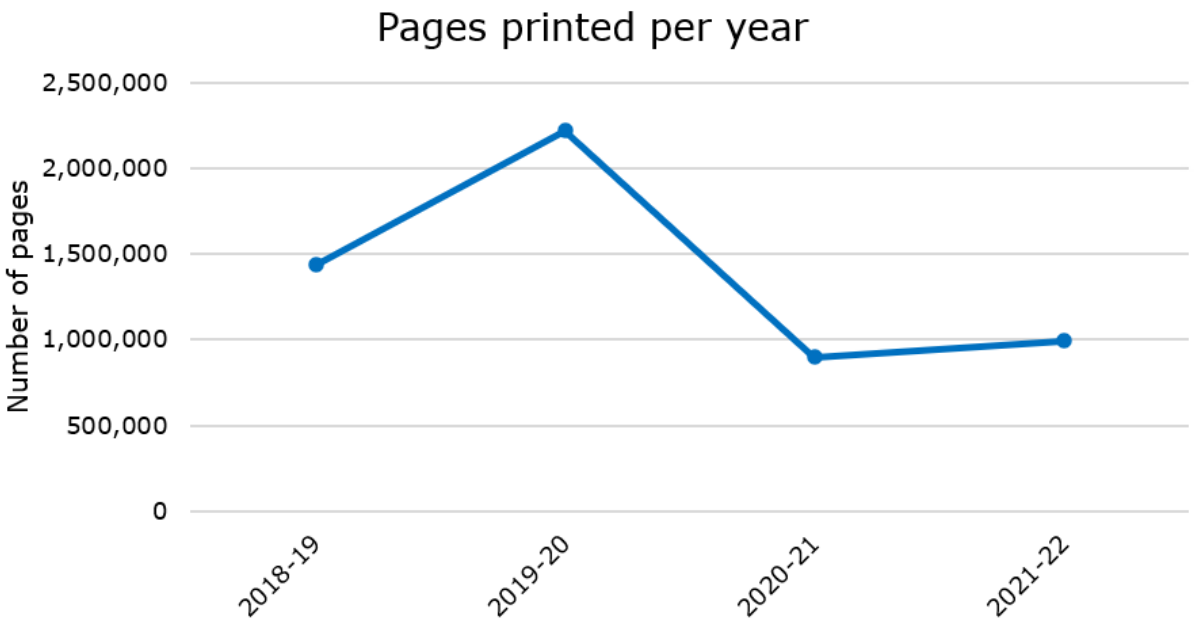
Figure 10 – Chart showing annual office waste and recycling weights



Office printing

In 2021-22, 995,197 pages were printed. This is an 11 per cent increase from 2020-21, but it is still 55 per cent lower than 2019-20.

Figure 11 – Chart showing number of pages printed per year



Emissions from printing stands at 2.94tCO_2e in 2021-22.

Carbon calculations have been made using the assumption that all pages are printed on A4 with 30 per cent of printing being single-sided and 70 per cent being double-sided. This figure excludes paper use in sizes other than A4 and use of envelopes and notebooks due to long term data availability.

8. Biodiversity and parks

Target: Maintain or increase the number of green flag accredited sites compared to the baseline year 2016.

Green flag status

The following sites successfully retained Green Flag accreditation during 2021-22:

- Abbey Gardens, Bury St Edmunds
- Nowton Park, Bury St Edmunds
- East Town Park, Haverhill
- Aspal Close, Mildenhall
- Brandon Country Park, Brandon
- West Stow Country Park, West Stow

More information on Green Flag Awards can be found at Green Flag Award.

Ongoing biodiversity and natural environment programmes

Reduction of fossil fuel usage in green spaces

As part of the machinery and equipment replacement programme, the Green Space and Heritage Team has trialled the use of electric ride-on lawnmowers. An Ariens zero turn electric ride on lawn mower (Figure 12) was purchased to be used in the Abbey Gardens.

Wildflower labyrinth in Abbey Gardens

The wildflower labyrinth (Figure 13) which was planted as part of the Abbey 1000 celebrations came into full flower during the summer of 2021. The labyrinth contains a mix of perennial herbaceous plants including Black Eyed Susan, Sea Holly, Yarrow and Yellow Oxeye Daisy – see the images below.

Figure 12 – Electric ride on mower at Abbey Gardens

Figure 13 – Wildflower labyrinth at Abbey Gardens

Tree planting for the Queen's Green Canopy initiative in honour of the Platinum Jubilee

During the winter of 2021, 50 standard trees were planted at George Lambton Playing Fields (Figure 14) plus Haverhill Tree Wardens Group and our rangers planted 10 Oak trees next to the skate park on Howe Road. More information can be found at West Suffolk Council – Tree-mendous effort to celebrate Queen's Jubilee in West Suffolk.

Brandon Country Park

The ranger team and volunteers at Brandon Country Park have been undertaking work to enhance biodiversity within the park. This work has included clearing reeds from the lake, restoring the water tank in the walled garden to provide a habitat for amphibians and other pond life (Figure 15), carrying out bat surveys and putting up bird boxes.

Figure 14 – New trees at George Lambton Playing Fields

Figure 15 – Restored amphibian habitat at Brandon Country Park

Improvement work to the Yellow Brick Road Linear Park

A community project involving the Jockey Club, Newmarket Town Council and West Suffolk Council to improve the Yellow Brick Road in Newmarket cleared the water course known as the number 1 drain. The project also involved local volunteers who carried out litter picks and bulb planting. See before and after photos below.

The Yellow Brick Road is an important wildlife corridor and accessible green route linking Newmarket town centre in the south to the northern residential extremities of the town. Approximately 1.7 miles in length, the park links a number of important green spaces including the Emerald Orchard to the north, wet woodlands, balancing ponds and a formal recreation ground at the George Lambton Playing Fields.

Figure 16 – Before improvements

Figure 17 – After improvements

9. Environmental compliance

Target: No incidents leading to formal action being taken by regulatory bodies.

Target date: Ongoing

The council currently maintains environmental permits for two operational sites located in Bury St Edmunds and Haverhill, which are used to support the strategic management of West Suffolk's municipal waste. There have been no compliance issues, breaches of the permit conditions or action taken by a regulatory body.

As we move forward, we are working with strategic partners to maintain compliance while ensuring that waste collected is managed in a safe, efficient and effective way.

Appendix 1

Emissions scopes

Figure 18 shows the total greenhouse gas emissions by reporting scope. The greatest proportion of emissions originates from Scope 1, referred to as direct emissions; this includes emissions from the consumption of gas and owned transport. Table 2 details where each source of emissions sits within the reporting framework.

Figure 18 – Total emissions by reporting scope

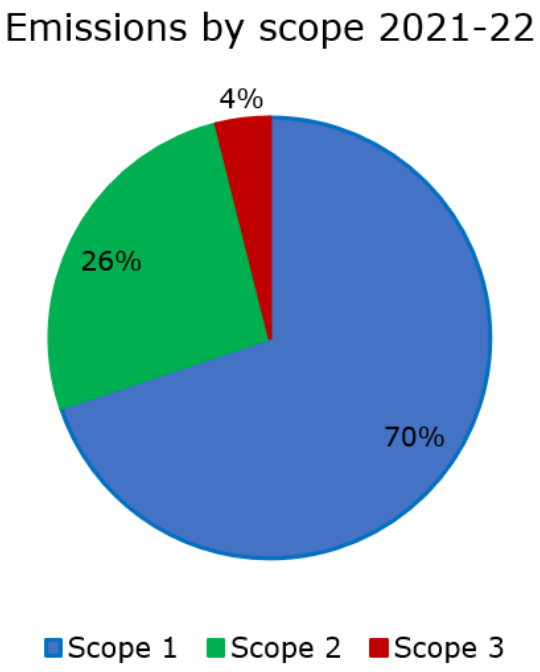


Table 2 - Sources of emissions by scope

Emissions scopes	Activity	Emissions
Scope 1 – direct emissions Emissions from the activities of an organisation or under its control.	• WSC gas consumption • WSC owned transport • WSC biomass • WSC propane • ACL gas consumption • ACL biomass	3,395 tCO_2e
Scope 2 – indirect emissions Emissions from electricity or other energy purchased and used by the organisation. These emissions are created during the production of the energy by another before they are used by the organisation.	• WSC purchased electricity • ACL purchased electricity	1,274 tCO_2e
Scope 3 – all other indirect emissions All other indirect emissions from activities of the organisation, occurring from sources that it does not own or control. The council currently only reports key Scope 3 emissions sources.	• WSC purchased electricity transmission and distribution • ACL purchased electricity transmision and distribution • WSC public transport • WSC water consumption and treatment • ACL water consumption and treatment • WSC pool cars • WSC staff and councillor mileage in personal vehicles	190 tCO_2e
Total emissions		**4,859 tCO_2e**
Emmisions per resident Resident population: 177,302 Data source: Suffolk Observatory		27.41 $KgCO_2e$ per resident
Out of scope Direct carbon dioxide impact of burning biomass and biofuels where the Scope 1 impact of these fuels has been determined to be net zero – since the fuel source itself absorbs an equivalent amount of CO_2e during the growth phase as the amount of CO_2e released through combustion.	• WSC fuel consumption with average biofuel blend • WSC biomass use • ACL biomass use	259 tCO_2e

Notes

- Electricity transmission and distribution emissions moved to Scope 3 following SECR guidelines.
- Out of scope emissions figure included for first time for fuels with biogenic component following SECR guidelines.
- Emissions from WSC propane use included for first time for reporting completeness.
- Emissions per resident added for first time to account for changes in population which impacts activities such as fuel use though waste collections as per SECR guidelines.
- Calculations include estimated figures for Mildenhall Hub.
- Calculations include estimated figure for WSC biomass use.
- Calculations include estimated figures for ACL utilities use at Skyliner leisure centre.
- The council is working to secure accurate data where omitted and the environmental statement will be updated once data becomes available.

West Suffolk Council