

Tackling climate change



Foreword

Climate change is one of the biggest challenges we face in our county. With record high temperatures, intense rainfall and flooding, we are seeing the real impacts the changing climate is having on our everyday lives, so there has never been a more crucial time to act.

We have pledged to tackle climate change and protect the environment through our Climate Change Strategy and Our Council Plan priorities all have an underlying commitment to climate action. Our ambitious target is to be a carbon neutral and climate resilient organisation by 2030. This report shows the progress we have made to honour these commitments and work towards achieving our target during the two financial years from April 2021 to March 2023.

Our work has sought to reduce the carbon emissions generated by our operations, and begin adapting our services so we can become resilient to the changing climate. This work is challenging but essential and is becoming ever more important as climate change increasingly affects our lives, our local environment and ultimately our planet.

Against the backdrop of the global pandemic, war in Ukraine, and the increasing cost of living pressures – including soaring energy prices – our progress demonstrates our continued commitment to tackling climate change, and our desire to help West Sussex residents, communities and businesses join us on this critically important journey.

During the two year period covered in this report we reduced our operational carbon emissions by a further 10% (compared to 2020/2021) and have taken meaningful steps towards delivering significant carbon reductions within our corporate buildings.

We have expanded our renewable energy schemes, rolled out new cycling infrastructure, begun developing a network of electric vehicle chargepoints, and helped local businesses prepare for the future through the Let's Go! Net Zero campaign.

Our Solar Together Scheme, that supports residents to install solar panels and battery storage, has never been so popular with the latest round seeing over 10,000 customer registrations. Through our Community Food Hubs, we have prevented nearly 8 tonnes of food being wasted. And working in partnership with local communities and others we have continued to support local nature recovery and find ways to boost and protect biodiversity.

There is much work to be done but this progress report highlights the appetite and commitment we have to deliver on our promises.

Deborah Urquhart

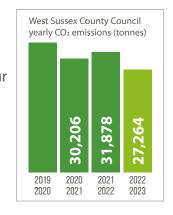
Cabinet Member for Environment and Climate Change

We will mitigate the effects of climate change by reducing carbon emissions

Our carbon emissions have continued to follow a general downward trend over the period.

We will be a carbon neutral organisation by 2030

Covid restrictions during 2021 led to a drop in our carbon emissions in comparison to the previous year. As Covid restrictions eased between 2021 and 2022 our carbon emissions rose slightly to 31,878 tonnes, before reducing significantly between 2022 and 2023 to 27,264 tonnes which was 19% lower than in 2019 to 2020.



This downward trend is largely attributed to a reduction in the amount of gas and electricity used in our buildings due to employees working from home, as well as a continued decarbonisation of the UK electricity grid.

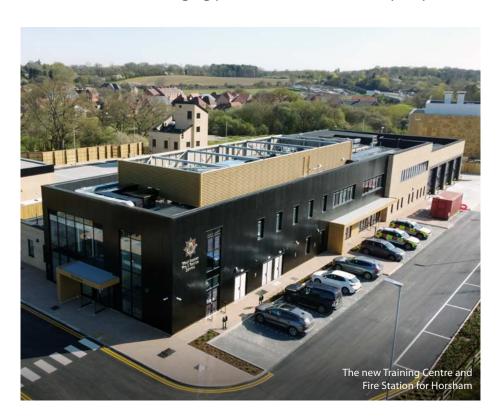
We produced heat decarbonisation plans for the 50 highest carbon emitting buildings in our corporate estate and for 64 of our schools. This has identified where we can install measures to reduce carbon emissions, such as low carbon heating systems to replace those currently running on fossil fuels.

In 2022, we successfully bid for funding from the Department for Energy Security and Net Zero's Public Sector Decarbonisation Scheme, delivered by Salix Finance which is available to public authorities to reduce emissions from their buildings. This funding along with £6.5m of new capital funding from the county council will support the first phase of building decarbonisation work in 14 of our buildings, including libraries, fire stations and a day centre, during the 2023/24 financial year. The work will deliver a full retrofit, removing almost all dependence upon gas by replacing boilers over 10 years old with air-source heat pumps, improving insulation and the efficiency of heating systems, and installing solar panels.

We have continued our work to improve energy efficiency in schools by delivering low energy lighting upgrades through the government's Salix Finance. Six schools were fitted with new LED lighting which, in total, produced an annual saving of 31 tonnes of carbon dioxide (CO₂). The work was carried out at no up-front cost to the schools because the capital cost is paid back by the energy cost savings.

Plans are in place to build a **new environmentally-friendly 900 pupil secondary school** in Burgess Hill. It is designed to enable the school to generate its own renewable energy on site and provide excellent educational facilities to local children.

We have designed and developed a new Training Centre and Fire Station for Horsham. A strong emphasis has been placed on the use of the latest technology and renewable energy sources to minimise the site's environmental footprint. The site features solar panels and electric vehicle charging points and air source heat pumps.



Decarbonising our highways operations and transport

All new traffic signals are now being installed with LED bulbs, reducing energy consumption, maintenance costs, and increasing the lifespan of these assets. We're also in the process of replacing all remaining traffic signals halogen bulbs to LED in a three-year programme of works. It is estimated that, once completed, this programme will save approximately 50 tonnes of CO₂ annually.

Since securing £2.35 million from the Department for Transport's **Active Travel Fund** we have installed 21 cycling infrastructure schemes, totalling 21.7km, and 36km of footpaths, providing more connected routes for residents and enabling them to safely switch from car travel to active travel options.

In addition, 13,694 children completed <u>Bikeability</u> training, giving them practical skills and understanding to cycle confidently and safely.

In Burgess Hill, we worked with Mid Sussex District Council to build more than 14km of new and improved pedestrian and cycle infrastructure within the town to provide safe, direct, and attractive walking and cycling routes and public spaces, as well as reduce the impact of planned growth within the town.

In 2022, with £274,906 government funding, we partnered with Living Streets on three initiatives to encourage more people to choose active travel for work and school journeys. This funding also supported a communications campaign and the design of Local Cycling and Walking Infrastructure Plan schemes.



Working in partnership with all seven district and borough councils and the Electric Vehicle (EV) charging infrastructure specialist Connected Kerb, we installed 150 Electric Vehicle (EV) chargepoints as part of the growing West Sussex **Chargepoint**Network, which plans for thousands of chargepoints across the county. Our Electric Vehicle Strategy will make EV charging more accessible and affordable for both residents and visitors.

Our <u>Bus Service Improvement Plan</u>, which is supported by £17.4m of government funding, sets out how we aim to sustain and improve local bus and community transport services in the years ahead.

The #WestSussBus website was launched and became a discussion forum between the county council, bus companies and users. Since its launch in April 2022, the website has had over 17,000 page visits and over 4,000 contributions including survey responses,

ideas and comments. The #WestSussBus eNewsletter has more than 4,000 subscribers.

In April 2022, we adopted the West Sussex Transport Plan (for years 2022–2036) which sets out our vision for the transport network, including a commitment to set a carbon reduction target.

Decarbonising our travel operations

Our transport use is made up of the following three categories:

- Corporate and fire fleet travel using county council owned vehicles (for example, pool cars)
- Grey work-related travel in vehicles owned by staff
- **Business travel** non-car mileage (for example, train travel).

Between 2019/20 and 2022/23 our reported total transport mileage for work purposes increased by 29%, largely due to improved emissions data tracking of our corporate and fire fleet and business travel rather than an actual mileage increase.

Our grey mileage, for which data tracking has been consistently robust, increased by 43% in 2022/23 compared to 2020/21, reflecting a return to necessary travel following the lifting of Covid-19 restrictions. However, grey mileage in 2022/23 decreased by 38% compared to the pre-Covid period in 2019/20, indicating that significant transport efficiencies have been made during the recovery period, through the increase in staff working remotely.

Our Catering Services team has removed hundreds of thousands of miles of lorry traffic from our roads as well as reducing on-site school traffic by arranging for canteen waste and recycling to be collected at the same time as other school waste. The project has removed 25,000 school waste collection journeys each year, offered schools greater value for money, and reduced the number of bins on site.

We worked in partnership with our catering partner Chartwells to enable schools to switch from daily 'delivered in hot' school lunches, to meals cooked on site in kitchen pods. The project has reduced food miles by 120,000 miles per school year. It has also provided an additional 1,900 hours of work per school year for local people, who live close enough to walk to work.

We have included the additive AdBlue® to the diesel vehicles in the fire and council fleet to reduce the harmful nitrogen oxide emissions released during the diesel combustion process by up to 90%.

Increasing the amount of renewable energy used and generated in West Sussex

We have a long-standing programme to increase the amount of zero carbon electricity we generate. Over the past decade, we have built solar farms on county council-owned land at Tangmere (5MW) and Westhampnett (7.4MW) and installed roof-mounted solar photo-voltaic systems on county council buildings and more than 70 schools. Compared to electricity from the grid, generating electricity in this way has prevented 7,293 tonnes of CO₂ from being released into the atmosphere during this reporting period. A major programme to install further systems in schools is underway.

Since we commissioned our battery installation at Westhampnett Solar Farm in 2018, it has provided a vital service to the grid and helped to maintain the frequency and voltage necessary for effective energy supply. In addition, we have also made significant progress





in developing a new, 24MW battery system on a former waste site in Sompting, which is scheduled to begin operation in 2024.

Working on behalf of local authorities across Sussex, we co-ordinated two successful rounds of the Solar Together Sussex scheme. The scheme helped residents to install high quality solar panels, battery systems and electric vehicle chargers to reduce their energy costs and carbon emissions. We launched our second round in 2021with over 7,000 new registrations and a further round in spring 2023, which attracted a record 10,600 new customer registrations.

The Manor Royal Local Energy Community (LEC) launched in March 2023. The project supported businesses on one of the South East's largest business districts to invest together in generating and sharing clean energy and heat and move towards net zero operation. We played a leading role in creating the LEC, working with the Manor Royal Business Improvement District and Crawley Borough Council, for which we received national recognition, coming first in the 'Enabler' category at the 2023 Association of Decentralised Energy Awards.

Energy saving in the workplace

We have purchased laptops with lower operational power consumption and benefitted from the carbon emissions reductions from our suppliers' manufacturing, packaging and shipping processes.

We also replaced ageing power supply units with smaller, significantly higher efficiency units, reducing our energy use. These new UPS units also generate less heat, reducing the demand for cooling and contributing to further energy savings.

Dozens of ageing Windows servers have been updated to not only improve their functionality but also to reduce the amount of energy needed to power the equipment and prevent it from overheating. Tackling climate change | April 2021 to March 2023 progress report

10%

reduction in carbon from previous period

36km ##

of new footpaths and 22km of new cycle paths



electric vehicle chargepoints installed



18,000

Solar Together Sussex registrations

We will adapt and become resilient to a changing climate

Adapting to climate change means taking action to prepare for and adjust to both the current effects of climate change and the predicted impacts in the future, from more frequent extreme weather events like heatwaves, droughts or floods, to coastal erosion from rising sea levels.

Our focus on biodiversity

We have continued supporting the Sussex Local Nature Partnership in their work to provide a strategic understanding of the wider Sussex natural environment. Work includes mapping of woodland opportunities, nature recovery and local biodiversity, and guidance on Biodiversity Net Gain to contribute to nature's recovery. We were also a founding partner of the Sussex Biodiversity Record Centre.

We progressed two projects to investigate how our highway assets can be used to catalyse environmental action: Community Road Verges and Pollinator Highways. Both projects are community-led, encouraging local wilding projects. There were 20 Community Road Verge projects across the county run by groups of residents and other organisations.



We designated a new nature-friendly Notable Road Verge beside the A280 near Worthing, creating a mini nature reserve and vital 'green corridor'. This site joined 84 others in West Sussex which together cover an area the size of 293 football pitches. In our role as a statutory planning consultee, we continued to ensure that major new developments in West Sussex aligned with the updated **National Planning Policy Guidance**, meaning they are designed to better adapt to a changing climate, reducing flood risk on site and elsewhere.

Water management

In early 2020, we secured funding from the <u>Southern Regional</u> <u>Flood and Coastal Committee</u> to investigate the potential benefits of directing rooftop drainage for waterfront developments over the sea wall rather than to traditional underground gravity drainage networks. Using Shoreham Harbour as a case study, the 'Over the Wall' project examined how we can adapt new developments to the impacts of climate change such as sea level rise and heavier rainfall events which can overwhelm traditional drainage networks.

We are developing three projects to reduce surface water flood risk that take account of potential climate change impacts, in Parklands (west Chichester), Hassocks, and Angmering. These projects consider how the use of Sustainable Drainage Systems and Natural Flood Management could improve climate change resilience in West Sussex.

In 2021, Natural England raised a concern that water abstraction in the Sussex North Water Supply Zone (covering all of Horsham, Chichester, Arun and Mid Sussex districts, and parts of Crawley) was damaging protected habitats in and around the Arun Valley.

We began working with partner authorities, to meet the demand for 'water neutrality' in new developments across the north of the county. Achieving water neutrality requires developers in water stressed areas to demonstrate that their developments either lower water use in that area or ensure that it remains the same. Planning applications can be refused if they are not water neutral.

To make sure we are prepared for the increased frequency and intensity of rainfall we have significantly increased our spending on clearing highway gullies to mitigate the risk of flooding.



We have also cleared ditches and reminded residents of their responsibilities. Most highway drainage systems drain through private watercourses, including ditches, streams, rifes and rivers and where they reach capacity, they are liable to flood. We therefore continued to work with residents to help them understand and fulfil their responsibilities for managing these areas and what they need to do in response to our changing climate.

We worked with our drainage contractor, Drainline, to install a rainwater harvester at the highways depot near Burgess Hill, which is used to fill gully emptying machines, saving over 240,000 litres of mains-supplied fresh water.

Operation Watershed

Operation Watershed enables West Sussex communities to respond to local flooding issues. The programme awarded £465,609 across 17 projects in the reporting period, including surface water storage ponds, riparian ditch network improvements, addressing localised highways drainage issues and improving resilience to protect homes and businesses.

Examples include:

- Slindon Parish Council received funding for improvement works on a pond to encourage nature and increasing temporary storage capacity during heavy rain as part of the drainage network in the village.
- In one area of Crawley, highway flooding was impacting pedestrians, motorists and businesses. In response, Tinsley Lane Residents Association was helped with funding for local highway

- drainage improvements, along with a wider neighbourhood improvement scheme delivered through the local business park.
- In Southbourne, following flooding to Parham Place properties, the parish council was supported to work with a local farmer and a new ditch was installed in an adjacent field to carry water away.

Rising temperatures

Due to increasing summer temperatures, we need to help road surfaces withstand extreme heat. Areas of our highway network affected by extreme heat were being treated with granite dust. This dust makes the soft bitumen more stable and helps keep roads from melting excessively. It prevents excess 'bleeding' on the road surface, helping the bitumen remain intact.

Our West Sussex Fire and Rescue Service (WSFRS) responded to an increasing number of climate-related events, such as wildfires and floods, with a 60% increase in outdoor fires and a 20% increase in rescues from water and flooding.

These increases resulted in multiple incidents being reported requiring WSFRS to simultaneously deploy large numbers of fire engines and other specialist vehicles while maintaining sufficient fire cover for the rest of the county.

To deal with these evolving risks, WSFRS is developing enhanced procedures to enable the service to respond more flexibly during periods of high demand. WSFRS is also reviewing its specialist capabilities, which deal with wildfire and flooding incidents, so it is prepared to respond in the future as the impacts of climate change continue to evolve.



We will source and use resources sustainably

Since January 2023, we have reviewed the potential carbon emissions of upcoming procurements to ensure that climate change impacts are being considered and embedded across the organisation.

Highways and Transport

We now exclusively use warm mix asphalts as opposed to hot mix to surface roads on our network. This saves approximately 10-11% of carbon emissions compared to traditional methods.

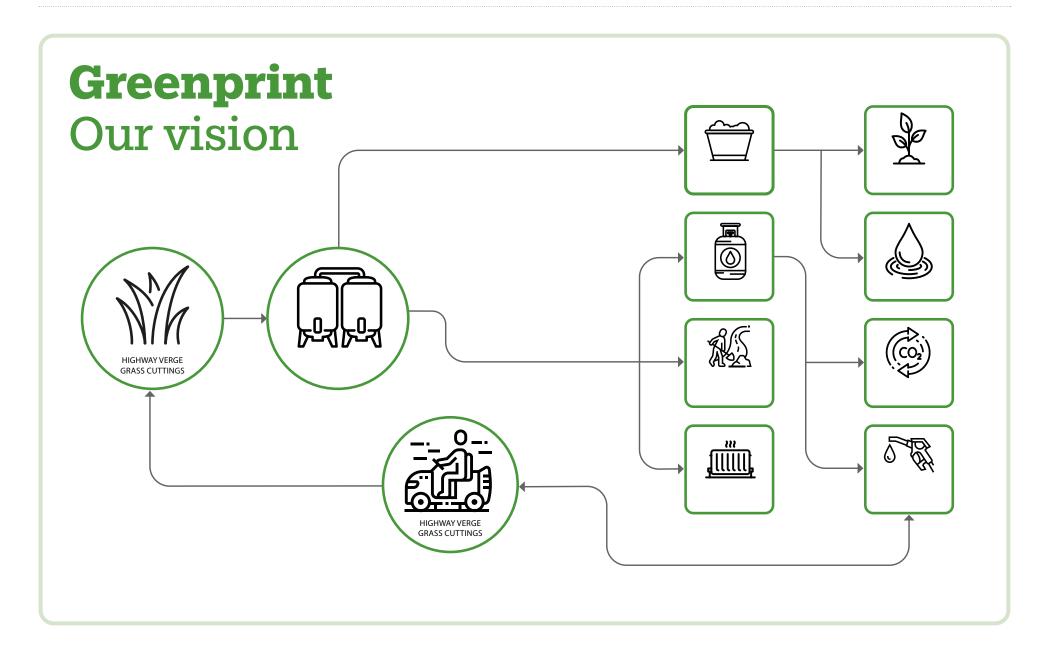
In addition, our contractor recycled all excavated material and where possible we used recycled asphalt in our warm mix.

We launched Greeprint – an innovative project exploring the potential for using grass cuttings from highway verges in the production of biofuels and road materials. It is funded by the Department for Transport (DfT) through the Association of Directors of Environment, Economy, Planning & Transport's (ADEPT's) three-year, £30million, Live Labs 2 innovation programme.

Greenprint was awarded over £4million to examine how changing the way we manage grass verges can provide a source of materials and fuels to decarbonise highway operations, as well as supporting other benefits, such as increasing biodiversity and resilience to the changing climate. As a result, Live Labs 2: Decarbonising Local Roads in the UK programme has been developed by ADEPT to achieve zero carbon local roads and highways across the UK.

Our libaries

Our libraries are inherently sustainable, enabling local communities to borrow from shared resources, maximising the use of items and reducing waste. Our 36 libraries lent over three million books and other resources each year. They also supported residents to access wider public services digitally, reducing the need for people to travel to our sites. We also participated in the new **Green Libraries**Partnership and signed up to the **Green Libraries Manifesto**.



Recycling and waste

Our Waste Prevention Team and Waste Prevention Advisor volunteers delivered 204 mostly face-to-face events, including talks, information stands, school assemblies, and workshops for uninformed groups, reaching over 8,000 residents in direct meaningful engagement.



We ran a six-month food waste minimisation pilot project with UKHarvest in three locations to encourage people to take advantage of surplus food rescue services and to reduce edible food waste. The pilot was composed of 18 community hub sessions and three education sessions. It prevented 7.8 tonnes of food, with a retail value of £21,600, from going to waste. Due to the success of the pilot,

a one-year county-wide programme began in April 2023.

We worked with five of the Chichester College Group (CCG) campuses and all of the Chichester University sites to educate students and staff about recycling and waste prevention. Staff and students at the CCG and Chichester University can recycle the same items as West Sussex households, providing an ideal opportunity to remind them how to recycle, whether they are at home, at work, or studying. We spoke to more than 3,600 students and staff through a variety of communications

channels. Waste analysis showed a reduction in recyclable material, including edible food, being put into general waste bins across most sites, and a 10% decrease in contaminated recycling collections. There was also a 20% increase in staff and students who said they are taking steps to reduce their waste.

Wastebuster, the schools recycling and waste education programme, saw a total of 6,303 resources (such as activity sheets or lesson plans) downloaded from the **Wastebuster website**, with 626 primary school log ins, and 193 primary schools downloading more than five resources. 38 secondary schools accessed materials via **The Pod**, an educational platform for teachers, community group leaders and children and 61 entries were received for the Climate Enterprise Challenge. The Planet Protector Challenge (aimed at primary schools) saw 20 schools take part, completing 55 'missions' and 1,051 pupils learning to 'recycle right'.

The Recycling Centre booking system was made permanent at Bognor Regis, Crawley, Horsham, Littlehampton, Shoreham, and Worthing Recycling Centres in April 2022 following a successful trial period, which began in response to the Covid-19 pandemic. The scheme has reduced the number of queueing cars and improved the amount of recycling as site staff had more time to advise visitors.

West Sussex recycling rates

Year	Percentage
2020 to 2021	53.11%
2021 to 2022	53.70%

Our recycling rate has improved in the period shown. Figures for 2022 to 2023 were unavailable when this report was produced.

7.8 TONNES

of food waste prevented, in partnership with UKHarvest



3 MILLION

shared books and resources borrowed by residents each year



204

waste prevention events reaching 8,000 residents



£4N+%%

government funding secured to trial carbon negative green infrastructure

We will support and grow our local green economy

A vibrant and strong green economy is essential to help West Sussex transition to a lower carbon economy.



Green tourism

We led on the implementation of the King Charles III England Coast Path in West Sussex, in partnership with Natural England, which when completed will be the longest continuous coastal route in the world.

The Experience West Sussex Partnership continued to support green tourism, promoting nature-based activities and sustainable places to stay. The partnership also supported tourism businesses on their own green journeys, through regular events and campaigns. The partnership promoted local food and drink and encouraged active travel around the county. We expanded our **Business Hub resources** to include a toolkit on 'sustainability and greening your business'. The West Sussex Tourism Symposium 2023, hosted by Experience West Sussex and South Downs National Park, had green tourism as a core theme.

Digital infrastructure

Our Digital Infrastructure team worked with telecoms operators to unlock digital connectivity for people at home, at work and on the move. Our work enabled more residents and businesses to work remotely using reliable internet connections, reducing travel and associated carbon emissions across West Sussex. Through the Gigabit voucher project, 8,386 homes have been connected since 2021 enabling more residents to work from home.

Sustainable business

Our Economic Growth team delivered a range of initiatives to support businesses with green innovation and their transition towards net zero carbon emissions.

Since 2021 the LoCASE (Low Carbon Across the South East) project has offered grant funding, expertise and academic knowledge to businesses looking to enhance their energy efficiency or grow environmental goods and services. In the period LoCASE awarded 84 grants, totalling £698,762.

Our Economy Team worked with district and borough councils to deliver a targeted programme of support for businesses. This included a 'Low Carbon Business in West Sussex' video series, Green Business Advisory Group and 'Let's Go! Net Zero' campaign.

Aimed at micro, small and medium-sized enterprises (MSMEs), the video series provided a strong business case for climate action, shown through the success stories of local business people from different sectors. The series was viewed 1,800 times.

The Green Business Advisory Group convened to discuss and agree the role of local authorities in supporting businesses to



lower their carbon and to understand their business priorities. Stakeholders were joined by MSMEs from a broad range of sectors.

The findings of the group were further developed to deliver a new business support initiative which launched in January 2023 and runs until May 2024. 'Let's Go! Net Zero' is designed to inspire and motivate West Sussex MSMEs to take meaningful steps towards sustainability. It combines sector specific demonstrator events where businesses can learn from each other and network, with a cohesive communications campaign and website. Green Business Champions from across sectors were also appointed to help inspire change, sharing their enthusiasm and tried-and-tested steps towards net zero.

To raise awareness of the growing portfolio of green business support from the county council and its partners, in autumn 2022 a 'Green Business Matters' eNewsletter was started which had attracted over 2,000 subscribers by March 2023.



We will transform how we work

Achieving our ambitious vision and delivering on our commitments requires us to radically transform how we deliver our services.

Our staff

To enable our staff and county councillors to contribute effectively to our carbon neutral commitment, we provided and continue to provide Carbon Literacy training across the organisation. The training helps participants understand climate change and the carbon impacts of everyday actions and this knowledge helps us transform how we work and deliver our services.

In July 2021, we were awarded Carbon Literate Organisation bronze status by the Carbon Literacy Project, and we began working towards achieving silver status. By the end of March 2023, 261 staff and members had been certified 'Carbon Literate'. These staff implemented new carbon reduction actions and continued to help address climate change through their work.

We continued to support our staff to work remotely and at different sites based on service need, which resulted in a significant expansion in remote working and a reduction in both business and commuter journeys across the organisation.

In July 2022, county councillors were briefed on our Climate Change Strategy and its delivery, to increase their awareness of the impact of climate change, both for their roles as local members, and as strategic decision makers.

Changing how we operate

All Highways, Transport, and Planning procurements over the value of £500,000 now include a 10% weighting allocated to social value, with sustainability considerations such as the use of materials, waste, recycling, and decarbonisation of operations. This has enabled us to understand and utilise low carbon innovations offered by industry.

All decision reports had a mandatory section describing how proposals contributed to our climate change commitments, so that decision makers could make informed decisions. The Communities, Highways, and Environment Scrutiny Committee acted as a critical friend to the Cabinet Member for Environment and Climate Change by reviewing relevant policies and strategies, such as the 2030 Energy Strategy, prior to its adoption, and the progress with delivery of the Climate Change, Electric Vehicle, and Energy strategies.

The Adults' Services Commissioning and Climate Change teams worked together on the Integrated Community Equipment Service tendering process to include a specific quality evaluation question that required bidders to demonstrate how they would minimise the environmental impacts over the life of the contract in support of our Climate Change Strategy.

Bidders were required to focus on the manufacturing, distribution, recovery, and reuse of equipment used within the service that could generate environmental benefits.

Communicating with our residents

We created our **Resident Climate Action Hub** to enable people across West Sussex to share their climate action ideas with each other and discuss climate change topics. The Hub received over 5,000 visits during the period and we are reviewing how we can evolve it in future. Discussion forum topics included reducing energy use at home, changing travel habits to reduce emissions, and reducing water consumption. In the ideas bank, people shared tips on everything from helping wildlife and cutting food waste, to solar panels and low-carbon Christmas gifts.

Alongside the Hub, we created a **Community Climate Action Map** to build a picture of all the climate action taking place across West Sussex. People used the map to find out what was happening in different parts of the county. They also added their own map pins to show other people what they have been doing. The map received over 2,500 visits since its launch and now displays over 200 pinned actions, from repair cafés and refill shops to community allotments and wildlife sites.

Our monthly Environment and Climate Change eNewsletter had over 7,000 subscribers and covered a wide range of topics, including the county council's actions to tackle climate change, climaterelated consultations, waste and recycling initiatives, and grants and schemes for household energy efficiency improvements.

Our Waste Prevention and Recycling eNewsletter had nearly 20,000 subscribers and we also launched new eNewsletters focused on cycling and walking, bus service improvement, and green business. We also offered an email alert service for extreme weather events such as heatwaves, heavy rain, or snow.





