



# Climate Change Annual Report 2022



## Foreword from the Leader of the Council

Following the adoption of the Climate Change Strategy in December 2021 I'm pleased to present the third Climate Change Annual Report produced by the council which sets out the continuation of our positive action towards the pledge to help Gravesham become a Net Zero Borough by 2030.

Climate change has been a big focus for the council, the whole of the UK, and, indeed, the world over the past year, and we have worked hard to ensure that all projects delivered locally by the council have taken into consideration the impact on the environment as well as delivering positive outcomes for our local communities.

The action we have taken means that we have been able to lead a decrease in CO<sub>2</sub> emissions within the borough and progress activity focused on the council's own operational emissions and those from the social housing it provides. During the year we have introduced electric vehicles within our fleet, installed electric vehicle charging points within council car parks, improved our parks and open spaces, and implemented initiatives intended to improve the energy efficiency of the homes the council provides and those owned by residents within our borough.

With the cost of heating our homes and day-to-day living increasing all the time I hope that such initiatives, including increasing our use of renewable energy, equipping council homes with better insulation, and providing better information and support for people on how to have warmer homes and save gas and electricity, will deliver financial and health benefits to the community as a whole, whilst also helping to reduce our collective impact on the climate.

The council continues to recognise this is an issue we have to work together on and have furthered our work during the year with other public sector partners, private sector organisations, and the wider community to develop our collective learning and ability to deliver the best outcomes with the limited resources we have to plot our way, step by step, to our 2030 goal. One significant element of this is the instigation of the Climate Change Advisory Board, intended to provide a public forum at which the council's actions against the Climate Change Strategy can be monitored, providing advice to the leadership of the council on climate change matters.

Members and officers hold a strong common purpose to work together and ensure our climate change action plan gets us to where we need and want to be, but I am under no illusion that this will be no small feat.

I would like to take this opportunity to thank everyone who has contributed to the delivery of the activity set out in this annual report and, I hope, we can continue to work together for the benefit of the Borough and the impact we have on the environment as a result of that too.

Cllr John Burden

Leader of the Executive



## Introduction

Following the adoption of its Climate Change Strategy in December 2021, the council has seen a renewed focus on delivering actions to reduce carbon emissions across council operations, its housing stock, and the wider borough. This report sets out some of the key activities undertaken by the council in the last year to deliver against the action plan within the strategy, which provides a clear and public framework for how the council intends to meet its operational net zero ambitions by 2030, as well as work with its tenants, borough residents, and businesses to reduce emissions in its housing stock and the wider borough.

During the year the council increased the public accountability of its actions through the establishment of the Climate Change Advisory Board, recognising the importance of Climate Change, both internationally, nationally and more locally for the council, its residents and stakeholders and the need for greater transparency and public reporting of the activity of the council around Climate Change.

Specifically, this year the council has:

- Progressed projects to increase the efficiency of council buildings, including the ambitious plans for a new leisure facility at the Cascades Leisure Centre site.
- Commenced a borough-wide programme of electric vehicle charging point installation
- Introduced electric vehicles within its extensive fleet of 110 vans and 25 HGVs.
- Sought government funding to enable the council to retrofit existing council-owned dwellings and increase energy efficiency standards in newly built council homes.
- Supported local residents in improving the energy efficiency of their own properties.
- Worked with local businesses to increase their knowledge and understanding of carbon initiatives within the commercial sector.
- Made improvements to parks and open spaces to promote biodiversity alongside enabling residents and visitors alike to have an appreciation of the health and well-being benefits such facilities can provide.

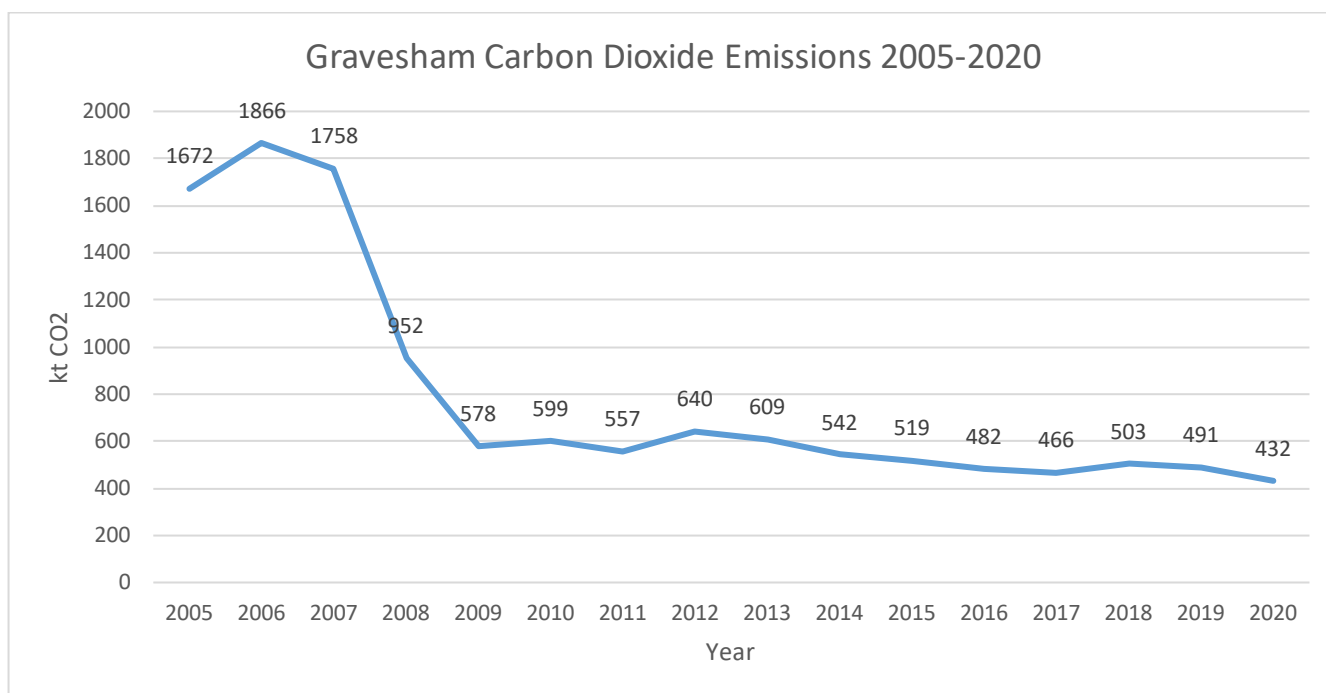
Financing this activity has become increasingly challenging with the current economic situation facing the entire country, and the council recognises that this is being equally felt by its residents and businesses. In response to this, the council has continued to actively signpost homeowners, private landlords and private tenants to advice, financial support and group purchase schemes (such as Solar Together) they may be able to access to enable them to make energy efficiency upgrades to their property which, in turn, can help reduce the energy costs associated with running a home or commercial business.

Despite the level of activity during the year, the council continues to face challenges in delivering at pace and scale from wider national infrastructure issues, particularly in relation to capacity in the national grid, and limited clear policy direction and support from the central government.

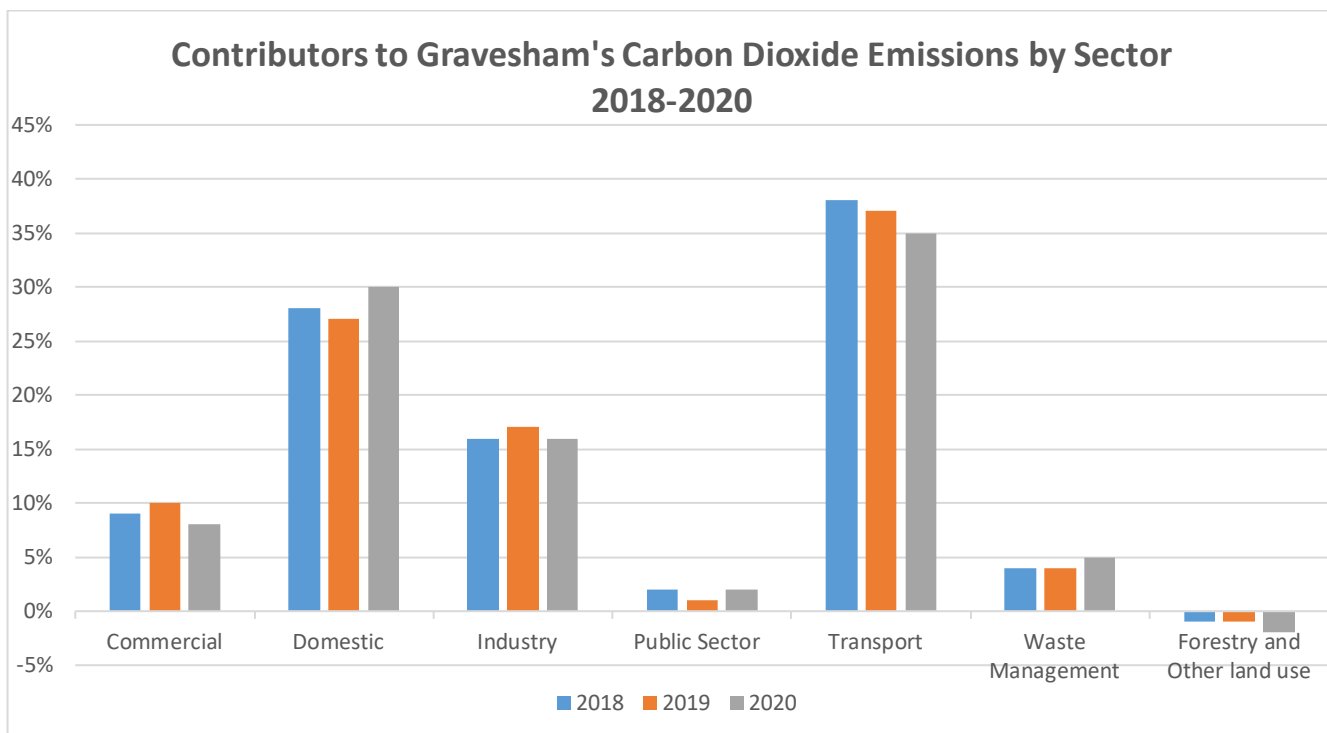
## Update on Emissions

### Borough Emissions

Data on local and regional end-user carbon dioxide (CO<sub>2</sub>) emissions is collated annually by the Department for Business, Energy and Industrial Strategy (BEIS) in order to provide a nationally consistent evidence base for greenhouse gas emissions. The latest data for 2020 was published in June 2022 and shows a continuing decrease in CO<sub>2</sub> emissions within Gravesham.



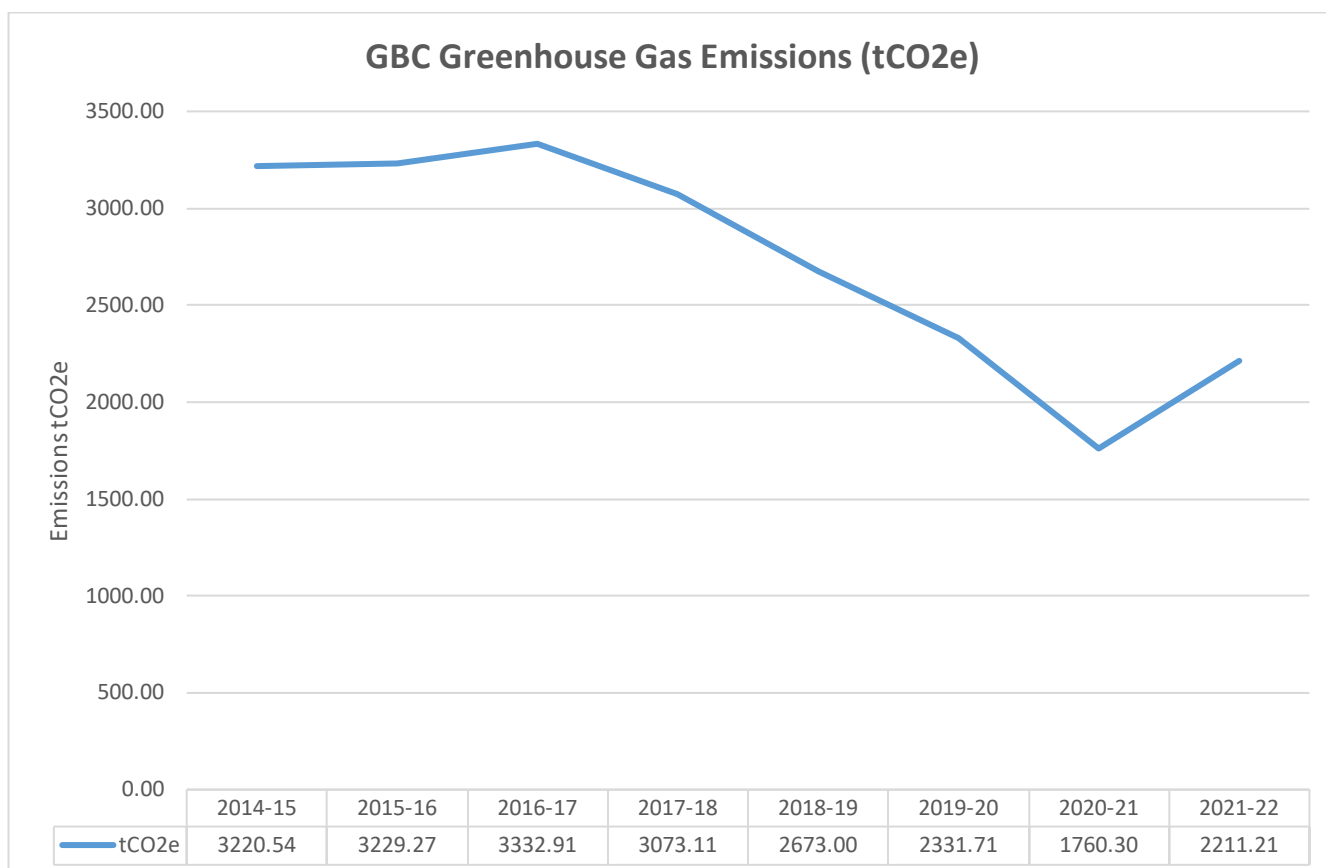
The coronavirus (COVID-19) pandemic and the resulting restrictions introduced in 2020 across the UK had major impacts on various aspects of society and the economy, which led to a significant impact on greenhouse gas emissions in the UK. The emissions data for the borough from each sector from the years 2018 to 2020 are displayed in the graph below. There is a notable fall in transport due to nationwide lockdowns and the limited availability of public transportation in the year 2020 as compared to previous years. Despite this decline, transport emissions still accounted for 35% of the emissions in the borough. With more people following the government guidance and staying at home, domestic and waste emissions increased during the year, accounting for 35% of total emissions from the residential sector.



### Council Operational Emissions

During 2021 the council continued to proactively progress activity to reduce emissions across its own estate and the wider borough.

Following its work with Local Partnerships, during the year the council continued to review and refine its arrangements for collecting and reporting data on Greenhouse Gas Emissions generated from its own operations. The graph below provides an updated summary of the level of Greenhouse Gas Emissions from GBC operations since 2014-15, using the Local Partnerships Accounting Tool:



The Council's total gross greenhouse gas emissions continue to be recorded against the three specific 'scopes' for categorising the emissions:

- **Scope 1** – All Direct Emissions from the activities of an organisation or under their control. Including fuel combustion on sites such as gas boilers, fleet vehicles and air-conditioning leaks.
- **Scope 2** – Indirect Emissions from electricity purchased and used by the organisation. Emissions are created during the production of the energy and eventually used by the organisation.
- **Scope 3** – All Other Indirect Emissions from activities of the organisation, occurring from sources that they do not own or control.

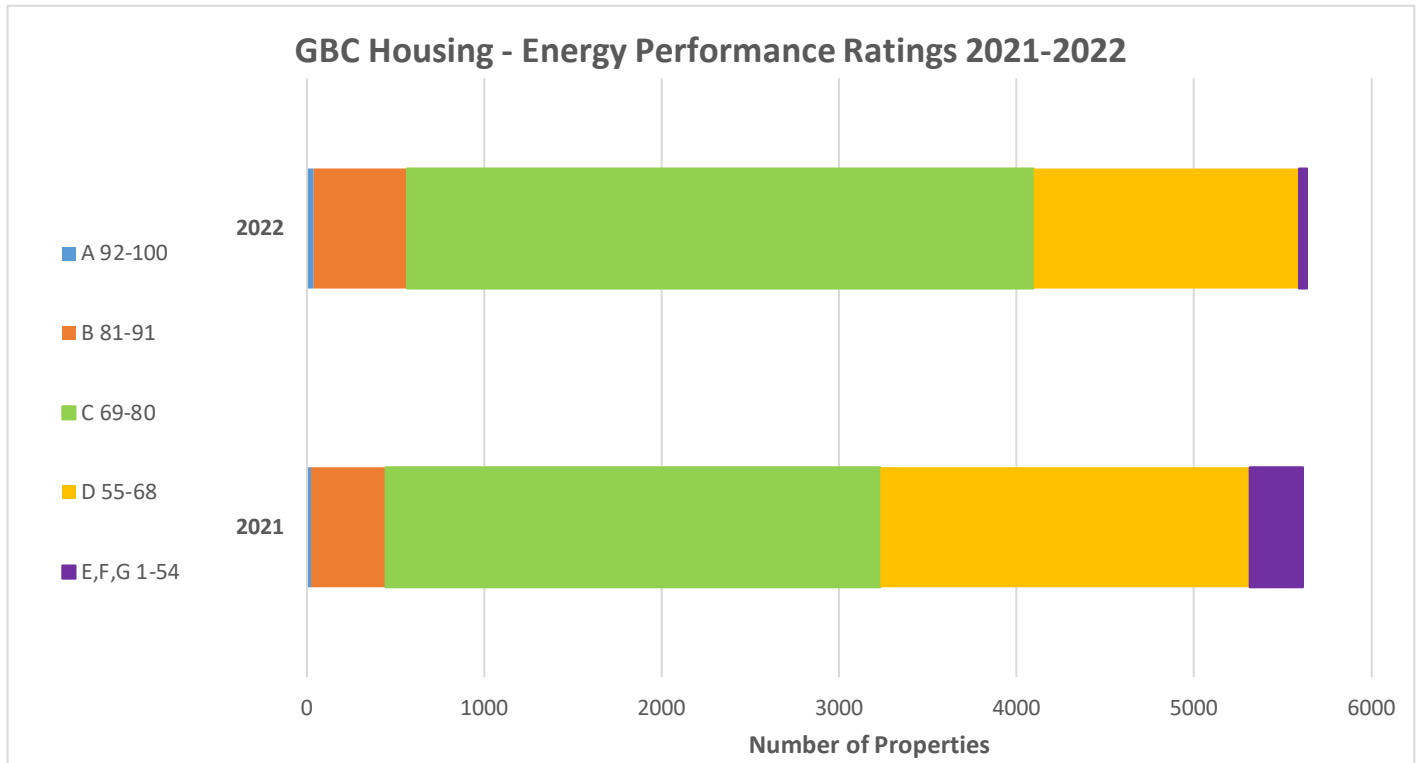
Total gross greenhouse gas emissions for Scope 1, 2 and 3 for the last financial year (2021-22) was 2211.21 tCO<sub>2</sub>e (tons of carbon dioxide equivalent – taking account of methane and nitrous oxide as well as carbon dioxide emissions). The graph above shows that there has been a clear reduction in Greenhouse Gas Emissions since 2016-17. The steep reduction in 2020-21 was affected by the changes required to be made to council service delivery during the COVID-19 pandemic.

### GBC Housing Stock Emissions

Energy Performance Certificates (EPCs) are required in the UK to provide a prospective owner or tenant with information on the energy performance of a building and recommendations for improvement. EPCs for homes use an A-G rating scale based on the modelled energy bill costs of running the building. The Government's Energy White Paper requires all existing homes to meet EPC Band C by 2035, where practical, cost-effective, and affordable.

The graph below shows the energy performance for all of Gravesham's social housing sourced from Parity Portfolio, a web-based assessment tool enabling the council to profile its housing stock and

target activity to improve performance and reduce CO2 emissions whilst also reducing energy costs for its tenants.



The graph demonstrates that planned council activity during the year had a significant impact on improving the energy efficiency of its housing stock; the proportion of homes with an EPC Rating of C or above is at 72.7%, up from 57.6% in 2021.



## Carbon Reduction Actions during 2022

The Climate Change Strategy sets in place a clear programme of actions and interventions for the council to prepare the Borough to be carbon net zero by 2030, and to do what is within its power and resources to make Gravesham Borough Council carbon net zero by 2030.

In identifying the key Climate Change action priorities for the council and the Borough as a whole, it has been clear that there are some aspects for which the council has full control and others for which the council will need to work with others to instigate change to reduce emission levels.

The actions are therefore split into three priority areas which reflect its scope of influence.

### Priority 1 – Gravesham Borough Council – the organisation

The council is targeting its operations to be carbon net zero by 2030.

### Priority 2 – Gravesham Borough Council the housing provider

The council will do what is possible within the resources available to work towards the UK Government's target for social housing providers, as set out in the Clean Growth Strategy, to attain the minimum rating of Energy Performance Certificate (EPC) C for rented properties by 2035. We will work with tenants to support them in the use of the tools and technology they have available to improve energy efficiency in the council housing stock.

### Priority 3 – Gravesham Borough Council the community leader

The council cannot tackle climate change alone. By working with partners, residents, community groups, and other interested parties across the borough, we can continue to drive down the level of emissions across Gravesham, helping the borough to focus on those areas where emissions are highest.

The following highlights show progress made against each of these priority areas over the last year.

## Priority 1 Highlights - Gravesham Borough Council – the organisation

### 1. Delivery of Carbon Literacy Training

Carbon Literacy Training has been offered to council officers and key Members, helping to ensure that those responsible for taking decisions on the delivery of council services are aware of the impact their actions may have on climate change.

### 2. Progressing plans for Cascade Leisure Centre

Activity has progressed at pace to replace the aging Cascades Leisure Centre, the council's second-highest carbon-emitting building. When built the new building, which is targeting Passivhaus principles, is anticipated to see annual emissions from the facility reduced from 255.4 tCO<sub>2</sub>e to 36.7 tCO<sub>2</sub>e.

### 3. Implementing plans to decarbonise the vehicle fleet

The Council has increased the number of electric vans within its fleet, with this reflecting 16% of the Council's smaller fleet vehicles now being powered by alternative fuels. The Council is also looking at the future of its Heavy Goods Vehicles and has trialled a battery-powered refuse collection vehicle in the past year, in addition to moving to battery-powered equipment such as blowers and strimmers in its operations.

### 4. Promoting Active Travel within the workforce

The council has engaged with Arriva buses to implement an Employer Travel Club intended to promote the use of public transport within its workforce. The council has also commenced





activity to research other initiatives to encourage its staff to consider green travel arrangements, including a cycle-to-work scheme and potential car-sharing arrangements.

## **5. Maintaining sustainable working practices**

The council has formalised its hybrid-working policy, enabling staff to work from home or other council facilities as a means to reducing the number of journeys needed to be undertaken. This objective has been further supported by the adoption by the council of new technology for video conferencing, holding of virtual meetings and the council's telephony solution.

## **Priority 2 Highlights - Gravesham Borough Council the housing provider**

### **1. Improving the council-owned housing stock**

Works to install loft and cavity wall insulation in just under 500 council-owned properties commenced during the year, supported by funding from the Social Housing Decarbonisation Fund (SHDF) Wave 1. To date total annual carbon savings of 370 tCO<sub>2</sub>e have been delivered from works to 120 homes, with all also having improved EPC ratings of C.

Ground Source Heat Pumps (GSHP) have been installed at Merston Court and properties at 62 Hermitage Road, expected to save over 40 tCO<sub>2</sub>e over the next 20 years.

Whole-house retrofits have been undertaken of 10 non-traditional, low energy-efficient council-owned homes using the "Energiesprong" model.

Two Net Zero Homes trials have been completed for properties previously on electric storage heating, bringing both properties to a net-zero carbon level and delivering EPC ratings of A.

LED lighting has been installed in eight housing blocks, equating to 413 new LED fittings, resulting in a total reduction of 62 tCO<sub>2</sub>e per year.

Solar Photovoltaic (PV) panels have been installed at Carl Ekman House, generating 3.97 megawatts-hour (MWh) of electricity since being commissioned in July 2022. A similar project has commenced at Chantry Court which, once operational, is intended to power the communal electric requirements of the entire block.

The council has switched the paint supply to Paint360 which re-engineer waste paint and brings it back to new. Each litre of paint contains a minimum of 65% recycled content. 1 litre saves enough embedded carbon to drive a transit van 5 miles carbon-free.

An energy-saving advice document has been produced for council tenants, advising on how they can help reduce their carbon emissions and save money on their energy costs.

### **2. Ensuring sustainability in new housing developments**

All 27 parking bays at the council's new Bishops Court development have been installed with passive EV charging, with a further three bays provided with above-ground electric charging capability. In addition, a secure cycle storage facility has been provided inside the building to encourage cycle ownership.

All seven council homes developed at Constable Road have been provided with passive EV charging stations, with two provided with wall pods for residents to use. Individual secure cycle storage has also been provided for each property.

Proposals for development at St. Columba's Close will see 26 existing council-owned flats with



poor energy efficiency replaced by 46 new homes of mixed type, with ground source heat pumps providing heating and hot water to these new homes rather than traditional gas-fired boilers. Proposals for Worcester Close and Istead Rise include the use of air-source heat pumps to provide heating and hot water.

In line with Building Regulations "Part L Plus.", the council will ensure that new developments include the ability for heating and hot water to be generated from renewable resources (either ground or air-source) and future-proof new council housing by, for example, making sure that roof structures can support PV panels.

### Priority 3 Highlights - Gravesham Borough Council the community leader

#### **1. Supporting Electric Vehicle Ownership**

Ten dual fast chargers (20 connection points) have been installed in the Parrock Street car park, delivered with assistance from the Office for Zero Emissions Vehicles (OZEV). These chargers provide facilities for town centre residents who do not have off-road parking and would find charging at home difficult.

The council has commenced a programme that will see twenty-two fast chargers installed in council-owned and maintained car parks, delivered as part of the Kent 600 framework.

The council has progressed its project to install EV charging points for Licenced Taxis within the borough, with a proposal for two dedicated ultra-fast chargers to be installed within Gravesend Town Centre that will provide a full charge in 45-60 minutes.

The council continues to signpost and promote carbon reduction schemes, such as those available to flat owner-occupiers, tenants and residential landlords to seek grant funding to install Electric Vehicle (EV) charge points.

#### **2. Development of Recycling Services**

The council has continued to expand access to recycling services within flatted developments, with thirty-eight additional blocks of flats receiving recycling provisions in the last year. Educational recycling leaflets have been delivered to 1,078 flats in the borough. A total of 56.4% of flats now have recycling services (was 49%), with 14.7% of flats now having food waste collection services compared to 4.4% in August 2021.

In January 2022, the Council launched a doorstep Christmas Tree collection service, collecting and recycling real Christmas trees from residents which were then shredded and composted.

The Council has continued to increase the number of recycling on-the-go bins throughout the borough, with bins now available in every small shopping parade. Recycling bins for flowers have been installed within the council-owned Cemeteries.

The council supported the nationwide 'Pumpkin Rescue' campaign, intended to minimise the estimated 22 million pumpkins that go to waste each Halloween.

Through interactive events, council officers have engaged with 522 local school children in the year to discuss the value of recycling and reducing waste and litter. The council is supporting one school, Tymberwood Academy, in securing Eco School status.



### **3. Supporting Businesses**

Funding has been made available to provide advice and top-up grants to 20 Gravesham-based businesses to support effective investment on decarbonisation initiatives from specialist advisors, supported through the UK Community Renewal Fund.

The council has continued to support and promote national and local schemes for business decarbonisation through its publications and networks, using mediums such as *Your Borough*, Gravesham Business Network newsletters and @GravehamForBiz.

### **4. Enhancing Biodiversity**

A sensory garden was built in Woodlands Park for the Queen's Platinum Jubilee, surrounded by long-established woodland and new tree planting.

Work has commenced developing a planting strategy for the council that promotes biodiversity, colour and growth along Gordon Promenade in Gravesend as part of the restoration work after the flooding caused by Storm Eunice earlier this year.

Since April 2022, the council has sent a total of 13.1 tonnes of green waste from parks and open spaces to the Green Landfill Facility at Pepperhill for composting.

During the most recent tree planting season the council planted 3,174 trees in various locations. Once established, these trees are expected to remove 69 tonnes of CO<sub>2</sub> from the atmosphere over the next 20 years as well as provide habitat for wildlife.

The council continues to play an active role in the Delivery and Steering Group of the Kent and Medway Plan Tree Partnership, which has the objective to increase the borough's tree canopy coverage by 8% by 2030.

Wildflowers were introduced at 12 locations within the borough this year, increasing the biodiversity opportunities in the borough as well as supporting the health and well-being of visitors to these locations.

The Bee Garden at Windmill Hill has continued to develop with the remapping of the grass pathways, wildflower areas, inclusion of several bee structures, and season floral display and has been used to host several events promoting the benefits of biodiversity with groups such as the Girl Guides.

Twenty bat, bird, and owl boxes were installed in various locations in the Borough to promote habitat for wildlife.

A proposal for a chalk grassland feature at the Warren is being taken forward, with support from independent ecologists and a Kent County Council specialist.

An active strategy commenced during the year to take sites back to the bare growing medium and allow fresh growth for the season. Analysis was completed in-year on the existing grassland, wildflowers, and insect variety at locations with the plan to trial areas for sowing of wildflower seed mixes.

### **5. Supporting Residents**

Information on energy efficiency measures has been promoted to borough residents during the year through the council website and, with the Autumn edition of *Your Borough* focusing on climate change activity and *Your Home* featuring energy-saving tips and advice tied in with money-saving advice regarding the cost of living crisis.



Active publicity was undertaken for Phase Two of the Solar Together Scheme, a group-buying platform for PV panels and battery storage. 118 Gravesham residents took part in the current phase of the scheme, with 52 installations completed to date, saving 50 tonnes of CO2 per year. 50 of these installations have included battery storage, providing a total capacity of 237KW/h. In total, 566 solar panels were installed, producing 0.22MW of energy every hour.

The council is currently one of a number of authorities across Kent delivering the 'Share the Warmth' Scheme, a trial programme intended to encourage and empower low/middle-income households to make low or no-cost behaviour changes that will reduce their domestic energy consumption.

The council continues to seek to engage with organisations such as the Ellenor Hospice and the British Heart Foundation to develop initiatives to reuse items such as furniture.

The council has instigated greater transparency and public reporting of the activity of the council around Climate Change by forming the Climate Change Advisory Board, establishing this as a Public Meeting and requiring the Board to report directly to Cabinet



## Future Carbon Pressure

The borough of Gravesham continues to see a number of nationally significant infrastructure projects in the area as well as experiencing, like the rest of the world, the global impact of Climate Change.

### Local Future Pressures

Along with others, the council has been actively pressing National Highways for some time to consider the environmental impacts of the Lower Thames Crossing, which has been reported to increase carbon emissions within the borough by 5.7 MtCO<sub>2</sub> over its 60-year life. In February 2022 National Highways designated the project as a “pathfinder” towards its efforts to deliver carbon-neutral construction in UK infrastructure projects.

National Highways has vowed to remove as much carbon from the construction of the tunnel as possible. In doing this, the Lower Thames Crossing will work with partners including the council, business and education providers to identify innovative ways of building and maintaining low carbon infrastructure (including the use of alternatively fuelled plant during the construction phase), after which the project will also consider carbon offsetting to address any residual emissions. Moving forwards the council will be seeking to ensure that any carbon reduction initiatives are equitably distributed across the entire Lower Thames Crossing corridor, championing those which deliver direct benefits to Gravesham.

There has been little progress in the London Resort project in the last year. The Development Consent Order application was withdrawn in March 2022 for reasons including the decision taken by Natural England to make Swanscombe Peninsula a Site of Special Scientific Interest (SSSI). The council continues to monitor the project and will provide comments on any further proposals that come forward.

### Global Future Pressures

The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 and is the United Nations body for assessing the science relating to climate change. The IPCC is in the process of preparing the Sixth Assessment Report (AR6), with its three Working Groups have now reported on the following key areas:

- The Physical Science Basis
- Impacts, Adaptation and Vulnerability
- Mitigation of Climate Change

The Synthesis Report will be the last of the AR6 products and is scheduled to be released in late 2022 or early 2023 to inform the 2023 Global Stocktake under the United Nations Framework Convention on Climate Change.

At the time of writing this report, the Working Groups have reported that:

- The past five years have been the hottest on record since 1850. The recent rate of sea level rise has nearly tripled compared with 1901-1971. It is "virtually certain" that hot extremes including heatwaves have become more frequent and more intense since the 1950s, while cold events have become less frequent and less severe.
- Temperatures in Europe have increased at more than twice the global average over the past 30 years – the highest of any continent in the world. As the warming trend continues, exceptional heat, wildfires, floods and other climate change impacts will affect society, economies and ecosystems. (Source - World Meteorological Organisation).
- Across the world, 3.3 to 3.6 billion people are highly vulnerable to climate impacts and half the world's population suffers severe water shortages at some point each year. One in three people is exposed to deadly heat stress, and this is projected to increase to between 50% to 75% by the end



of the century. Half a million more people are at risk of serious flooding every year, and a billion living on coasts will be exposed by 2050.

- Rising temperatures and rainfall are increasing the spread of diseases in people, such as dengue fever, and in crops, livestock, and wildlife. Animals and plants are being exposed to climatic conditions not experienced for tens of thousands of years, with half of the studied species having already been forced to move and many facing extinction.
- Even if all the policies to cut carbon that governments had put in place by the end of 2020 were fully implemented, the world will still warm by 3.2C this century. Positive action can still be taken but will require significant changes to energy production, industry, transport, our consumption patterns, farming practices, diets and lifestyles and the way we treat nature.

### Areas of Focus for 2023

The council will continue to follow its adopted Climate Change Strategy during 2023, focusing on the following three key areas:

- **Gravesham Borough Council – the organisation**  
Focusing on how the council can change its own operations, and those of its employees, wherever possible to reduce the level of carbon emissions it produces.
- **Gravesham Borough Council – the housing provider**  
Exploring opportunities to bring the council's current housing stock up to a better level of energy efficiency standard where it is possible to do so; ensuring new council housing is built to a high level of sustainability and ensuring local planning policy reflects the need for the borough to consider energy efficiency in all developments moving forward.
- **Gravesham Borough Council – the community leader**  
It is clear that the council cannot directly affect all of the changes that are needed across the borough. However, in its role as a community leader, it can work with residents, community groups, and partners to educate and support them in making changes that will have a positive impact on the level of carbon emissions in the borough.

### Key deliverables in 2023

The council's Climate Change Strategy for 2022-30 sets out a number of high-level actions against each of the three areas above, focusing on those areas that will have the greatest impact on reducing the level of emissions across the borough. The high-level delivery plan is supported by a detailed management action plan.

For 2023, the council will be focusing on:

- Continuing the delivery of the Carbon Literacy Training Programme, focusing on newly elected Members and providing general climate awareness training to all council staff, while seeking to secure bronze accreditation as a Carbon Literate Organisation.
- Progressing plans to deliver a sustainable leisure centre at the Cascades site, whilst further developing plans to reduce carbon emissions from its other largest operational buildings.
- Continuing to implement its vehicle replacement plan and the procurement of alternatively fuelled vehicles, as well as furthering work to ensure sufficient infrastructure is in place to charge these vehicles. Proactively work with partners and industry to understand the future of alternatively fuelled vehicles, particularly larger vehicles.
- Furthering work and incentives to encourage staff to use alternative sustainable travel options.
- Engaging with key local businesses and networks to increase options to share decarbonisation



opportunities, learn from others, celebrate good practices in reducing business environmental footprints and promote business trading in the Low Carbon Environmental Goods or Services sectors.

- Continuing to deliver a programme of activity to improve the energy efficiency of council-owned homes, seeking opportunities to apply for Government funding where these are available.
- Exploring larger scale rollout of sustainable heating such as heat pumps and completing the delivery of loft and cavity wall insulation to our worst-performing properties.
- Installing LED lighting in housing blocks, with a focus on our highest energy consuming first and identifying opportunities to install Solar PV and EV charging on other estates.
- Continuing the council's tree planting programme to help sequestration of carbon as well as promoting health and well-being of residents and visitors to the borough. Completing the planting programme at Gravesend Promenade.
- Completing the programmes to deliver EV charging points within council-owned and maintained car parks and provide facilities for charging Licenced Taxis.
- Developing engagement activity with residents of the borough on climate issues.
- Enhancing the information and advice on offer to local residents in improving the energy efficiency of their homes and how they can change their behaviour to reduce their domestic energy consumption.
- Working on an affordable programme to give residents more options to dispose of unwanted furniture or goods through donations and other avenues.

The actions set out will continue to be progressed and monitored both through the council's internal officer working group and the Climate Change Advisory Board which will report directly to Cabinet.