

Crawley

Local Plan

Crawley Borough Submission Local Plan 2024 Topic Paper 6:

Climate Change



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1. Introduction

1.1 This Topic Paper is part of the evidence base for the Submission draft Crawley Borough Local Plan 2024 – 2040¹. It clarifies the position of the Local Plan in relation to supporting, over the Plan period, the council’s Climate Emergency Declaration and commitment to reducing carbon emissions to zero by 2050, and provides a summary of the technical information relating to Climate Change mitigation and adaptation which is detailed in the submission Local Plan policies:

- SD1: Presumption in Favour of Sustainable Development
- CL4: Compact Development – Layout, Scale and Appearance
- CL6: Structural Landscaping
- DD4: Tree Replacement Standards
- GI1: Green Infrastructure
- GI2: Biodiversity Sites
- GI3: Biodiversity and Net Gain
- SDC1: Sustainable Design and Construction
- SDC2: District Energy Networks
- SDC3: Tackling Water Stress
- SDC4: Water Neutrality
- EP1: Development and Flood Risk
- EP2: Flood Risk Guidance for Householder Development and Minor Non-Residential Extensions
- EP5: Air Quality
- ST1: Development and Requirements for Sustainable Transport
- ST2: Car and Cycle Parking Standards
- ST3: Improving Rail Stations

1.2 It is supported by the Local Plan Sustainability Appraisal².

2. Background

2.1 [Crawley Borough Local Plan 2015](#)

2.1.1 The Crawley Borough Local Plan was adopted in December 2015. It includes the following policies related to climate change:

- SD1: Presumption in Favour of Sustainable Development (predecessor to SD1 of the Submission draft Local Plan 2024-2040)
- CH4: Comprehensive Development and Efficient Use of Land (predecessor to CL4)
- CH6: Tree Planting and Replacement Standards (predecessor to DD4 & DD5)
- ENV1: Green Infrastructure (predecessor to GI1)
- ENV2: Biodiversity (predecessor to GI2 and GI3)
- ENV6: Sustainable Design and Construction (predecessor to SDC1)

¹ Submission Draft Crawley Borough Local Plan (May 2023) CBC:

[https://crawley.gov.uk/sites/default/files/2023-](https://crawley.gov.uk/sites/default/files/2023-05/1.%20Submission%20Crawley%20Borough%20Local%20Plan%202024-2040%20May%202023.pdf)

[05/1.%20Submission%20Crawley%20Borough%20Local%20Plan%202024-2040%20May%202023.pdf](https://crawley.gov.uk/sites/default/files/2023-05/1.%20Submission%20Crawley%20Borough%20Local%20Plan%202024-2040%20May%202023.pdf)

² Crawley Sustainability Appraisal/Strategic Environmental Assessment (2023) CBC:

[https://crawley.gov.uk/sites/default/files/2023-](https://crawley.gov.uk/sites/default/files/2023-05/3.%20Sustainability%20Appraisal%20SA.SEA%20Report%20May%202023.pdf)

[05/3.%20Sustainability%20Appraisal%20SA.SEA%20Report%20May%202023.pdf](https://crawley.gov.uk/sites/default/files/2023-05/3.%20Sustainability%20Appraisal%20SA.SEA%20Report%20May%202023.pdf)

- ENV7: District Energy Networks (predecessor to SDC2)
- ENV8: Development and Flood Risk (predecessor to EP1 & EP2)
- ENV9: Tackling Water Stress (predecessor to SDC3)
- ENV12: Air Quality (predecessor to EP5)
- IN3: Development and Requirements for Sustainable Transport (predecessor to ST1)
- IN4: Car and Cycle Parking Standards (predecessor to ST2)
- IN6: Improving Rail Stations (predecessor to ST3)

2.1.2 The council's Planning & Climate Change SPD was adopted in October 2016. It provides further guidance on the following adopted Local Plan policies:

- ENV6: Sustainable Design and Construction
- ENV7: District Energy Networks
- ENV8: Development and Flood Risk
- ENV9: Tackling Water Stress
- IN3: Development and Requirements for Sustainable Transport

2.1.3 The council's Green Infrastructure SPD was adopted in October 2016. Green infrastructure is the network of multi-functional green spaces and waterways both new and existing, and both rural and urban, which supports the natural and ecological processes and is integral to the health and quality of life of the population. The SPD supports the Local Plan by providing greater detail on The Green Infrastructure Network, Trees, Open Spaces, Biodiversity and Countryside and Area of Outstanding Natural Beauty. Several adopted Local Plan policies that enable mitigation and adaptation to climate change are expanded upon within the Green Infrastructure SPD. These include policies for Design, Trees, Landscaping, and Biodiversity:

- Policy CH6: Tree planting and replacement standards
- Policy ENV1: Green infrastructure
- Policy ENV2: Biodiversity

2.1.4 The Local Plan 2015 Sustainability Appraisal establishes climate change mitigation and adaptation to the impacts of climate change as key sustainability objectives. It identifies appropriate indicators for assessment of performance against these, and the following SA indicators have been subject to monitoring as part of the council's Authority Monitoring Reports:

- CO₂ emissions from Local Council Activities;
- Crawley per capita CO₂ emissions;
- Crawley per capita residual household waste;
- Proportion of household waste recycled or composted;
- Applications granted contrary to Environment Agency advice on flooding or water quality grounds.

2.1.5 The overall approach taken to climate change mitigation and adaptation in the adopted Local Plan is largely reflective of the opportunities and constraints offered by the borough as a location. Given the borough's excellent transport links and density of housing, jobs, and shopping and leisure facilities, much of the borough's area may be considered a sustainable location for additional development, and this

potential is recognised in the overall framework set in adopted Policy SD1, as well as the inclusion of Policy CH4 in the adopted Local Plan. In this context, the adopted Plan's transport related policies (IN3, IN4, IN6) seek to exploit Crawley's potential while managing associated pressures on transport networks. At the same time, the approach taken to safeguarding and improving open space, biodiversity and green infrastructure in adopted Policies CH6, ENV1 and ENV2 reflects the extent to which additional population places additional demands and pressure on these assets, as well as the positive role they play in respect of climate change. This role can be defined in terms both of carbon sequestration and, importantly, mitigation of the risks linked to the impacts of climate change, including increased flood risk (the focus of Policy ENV8) as well as overheating risks associated with the 'urban heat island' effect in an urban area such as Crawley.

- 2.1.6 Air quality is in some ways distinct from climate change, to the extent that not all air pollutants are not counted as greenhouse gases. Notwithstanding this, these issues are closely linked, both in the role which some pollutants play in contributing to the greenhouse effect, and in the effects of climate change in terms of poorer outdoor and indoor air quality. Air quality is the focus of adopted Local Plan Policy ENV12, which sets the framework for considering development impacts, including particular reference to the Air Quality and Emissions Mitigation Guidance for Sussex, and the Air Quality Management Area in the north eastern part of the borough.
- 2.1.7 The adopted Local Plan approach to establishing energy, carbon and water standards for new development, set out in adopted Policies ENV6, ENV7 and ENV9 can be understood as involving a combination of:
- set standards – e.g. BREEAM 'excellent' energy and water minimum standards for non-residential buildings, and the 'optional' tighter water efficiency standard for dwellings;
 - prescribed sequential approaches to climate mitigation and adaptation – e.g. the use of the 'energy hierarchy'; and
 - support for specific opportunities in particular locations – as in the identification of 'District Energy Network Priority Areas'.

In terms of their technical content these approaches respond to the policy options available at the time of the preparation of the Plan, as considered in light of issues of viability and technical feasibility.

2.2 International Agreements

- 2.2.1 The response of the UK Government to climate change, including those dimensions which operate through the planning system, operates within a framework of legally binding international agreements. Most recently, the 2015 Paris Agreement sets legally binding national targets for the reduction of greenhouse gas emissions, with the overall aim of keeping global temperature rise by 2100 well below 2 degrees Celsius above pre-industrial levels, and seeking a limit of 1.5 degrees Celsius.

2.3 Legislation

- 2.3.1 UK domestic legislation vests public authorities, including local planning authorities, with various powers and responsibilities to contribute to climate change mitigation and adaptation. These include the following.

- 2.3.2 The Planning and Compulsory Purchase Act 2004 (as amended):
- Section 19(1A) of the Act requires that a local authority's development plan documents must '(taken as a whole) include policies designed to secure that the development and use of land in the local planning authority's area contribute to the mitigation of, and adaptation to, climate change.'
 - Section 33A of the Act places local planning authorities under a duty to cooperate with other local planning authorities in preparing Local Plans, where strategic matters have impacts across administrative boundaries.
- 2.3.3 The Climate Change Act 2008 sets a framework for climate change mitigation and adaptation, including a binding carbon target, carbon budgets, and the establishment of the Committee on Climate Change (now renamed the Climate Change Committee) as an independent advisory body. The Act was amended in 2019 to include target of net zero greenhouse gas emissions by 2050.
- 2.3.4 The Planning & Energy Act 2008 made provision to allow local plans to impose reasonable requirements for:
- A proportion of energy used in development in their area to be energy from renewable sources in the locality of the development;
 - A proportion of energy used in development in their area to be low carbon energy from sources in the locality of the development;
 - Development in their area to comply with energy efficiency standards that exceed the energy requirements of building regulations.
- The Deregulation Act 2015 included a provision removing the third of these capabilities, subject to a further statutory instrument. No such statutory instrument has as yet been made and all of these powers remain in force.
- 2.3.5 The Environmental Assessment of Plans and Programmes Regulations 2004 transposed into UK law the Strategic Environmental Assessment Directive of the European Union, setting out requirements for how plans and programmes falling within the scope of the Regulations should assess their impact on the environment, including climate change mitigation and adaptation.
- 2.3.6 The Building Regulations and associated Approved Documents set technical standards for building work, including aspects of environmental performance. These are largely separate from the planning system although there are some areas of overlap, for example in relation to optional technical standards. Approved documents with particular relevance to climate change include:
- Ventilation: Approved Document F
 - Sanitation, hot water safety and water efficiency: Approved Document G
 - Drainage and waste disposal: Approved Document H
 - Combustion appliances and fuel storage systems: Approved Document J
 - Conservation of fuel and power: approved document L
 - Overheating: approved document O
 - Infrastructure for charging electric vehicles: approved document S

2.4 [National Policy, Strategies, Guidance](#)

- 2.4.1 National Planning Policy for England is set out in the National Planning Policy Framework (NPPF) (2021). The NPPF details the purposes of the planning system in

terms of ‘Sustainable Development’, which is comprised in three ‘overarching objectives, which are interdependent and need to be pursued in mutually supporting ways’:

- an economic objective
- a social objective
- an environmental objective

National Policies relevant to climate change mitigation and adaptation are set out throughout the NPPF, including notably in chapters 9: Promoting sustainable transport; 11: Making effective use of land; 14: Meeting the challenge of climate change, flooding and coastal change; and 15: Conserving and enhancing the natural environment.

2.4.2 Planning Practice Guidance is a web-based resource containing Government guidance regarding compliance with national planning policy and legislation. It is periodically updated. Sections of particular relevance to climate change include:

- Air Quality
- Climate Change
- Effective Use of Land
- Environmental Impact Assessment
- Flood Risk and Coastal Change
- Housing: optional and technical standards
- Renewable and low carbon energy
- Strategic environmental assessment and sustainability appraisal
- Transport evidence bases in plan making and decision taking
- Travel Plans, Transport Assessments and Statements
- Waste
- Water supply, wastewater and water quality

2.4.3 Various current or recent government strategies, statements and consultations are also relevant to this topic, including (in date order):

- [The UK's Industrial Strategy](#), Department for Business, Energy and Industrial Strategy (2017)
- [Industrial Strategy: The Grand Challenges, Department for Business, Energy and Industrial Strategy](#) (2017, as updated)
- [The Clean Growth Strategy: Leading the way to a low carbon future](#), Department for Business, Energy and Industrial Strategy (2017)
- [The Road to Zero: Next steps towards cleaner road transport and delivering our Industrial Strategy](#), Department for Transport (2018)
- [A Green Future: Our 25 Year Plan to Improve the Environment](#), Department for the Environment, Food, and Rural Affairs (2018)
- [Spring Statement 2019: Written Ministerial Statement](#), HM Treasury (2019)
- [Consultation on Electric vehicle chargepoints in residential and non-residential buildings](#), Department for Transport (2019)
- [The Future Homes Standard: 2019 Consultation on changes to Part L \(conservation of fuel and power\) and Part F \(ventilation\) of the Building Regulations for new dwellings](#), Ministry of Housing, Communities & Local Government (2019)

- [Gear Change: A bold vision for cycling and walking](#), DfT (2020)
- [Planning for the Future: White Paper](#), Ministry of Housing, Communities & Local Government (2020)
- [The ten point plan for a green industrial revolution](#), Department for Business, Energy and Industrial Strategy (2020)
- [Bus Back Better: National Bus Strategy for England](#), DfT (2021)
- [Net Zero Strategy: Build Back Greener](#), Department for Business, Energy and Industrial Strategy (2021)
- [British Energy Security Strategy](#), Department for Business, Energy and Industrial Strategy (2022)
- [Jet Zero Strategy Delivering Net Zero Aviation by 2050](#), DfT (2022)
- [Mission Zero: Independent Review of Net Zero](#), Department for Business, Energy and Industrial Strategy (2023)
- [Consultation on Levelling-up and Regeneration Bill: Reforms to National Planning Policy](#), Department for Levelling Up, Housing and Communities (2022-23)

2.5 Crawley Borough Council Corporate Strategies

- 2.5.1 In addition to the role of the Local Plan described in section 2.1, there are a number of corporate strategies and initiatives which seek to respond to the issue of climate change.
- 2.5.2 The council adopted a [Corporate Climate Change Strategy](#) in 2008. This set emissions reduction targets for both the council and the borough as a whole. It was superseded by the 2012 [Carbon and Waste Reduction Strategy](#).
- 2.5.3 Measures undertaken pursuant to these strategies have included:
- Deployment of solar photovoltaic panels on council buildings and council homes;
 - Delivery of new CBC housing schemes with advanced energy/carbon performance standards, including 2 Passivhaus schemes and several schemes meeting Code for Sustainable Homes Level 4 equivalent;
 - Energy efficiency improvements to council buildings;
 - A retrofit programme for council-owned homes, informed by the council's participation in the NetZero Collective
 - Progression of work to establish District Energy Networks in Crawley Town Centre and in other locations within the borough, including establishment in 2022 of the Town Centre District Heat Network, which provides heat and electricity to the new Create Building (including the new Town Hall) as well as nearby housing developments.
- 2.5.4 In July 2019, the council approved a [Climate Emergency Declaration](#), which included the following commitments:
- to aim to reduce carbon emissions generated by council activities by at least 45% by 2030 and to zero by 2050;
 - to work with other councils and partners to determine and implement best practice methods to reduce carbon emissions;
 - to progress the establishment of a Scrutiny Panel to look into and make recommendations focusing on the workings and activities of the council and to report back to the council;

- to progress a review of the ethical investment policy in the Treasury Management Strategy with a view to incorporating the council's Climate Emergency Declaration.
- 2.5.5 In December 2021, the council amended the Climate Emergency Declaration commitments so as 'to pledge to reduce emissions by at least 50%, and as close to net zero as possible by 2030, and to reach net zero by 2040 at the very latest.'
- 2.5.6 In pursuit of these commitments, the council's [Climate Emergency Action Plan](#) was adopted in November 2021. Implementation of the Plan is overseen by a Climate Emergency Board.
- 2.5.7 In the area of sustainable transport and the enabling of active travel the council consulted on and adopted [New Directions for Crawley: Transport and Access for the 21st Century](#), a Transport Strategy Issues and Options Document. Crawley's [Local Cycling and Walking Infrastructure Plan](#) was also adopted in 2021 following public consultation.
- 2.6 Other Initiatives
- 2.6.1 [Re-Energise Manor Royal](#) is a separate initiative which is being coordinated by West Sussex County Council and the Manor Royal Business Improvement District in Crawley, with CBC's involvement, and with the support of funding from the EU BISEPS (Business Clusters Integrated Sustainable Energy Packages) initiative. The project is seeking to develop more secure, more sustainable and more locally generated forms of energy supply to serve local businesses, while reducing the Business District's carbon footprint. At the time of writing the project is exploring the feasibility of detailed schemes for low-carbon district energy and laying the foundations of a Local Energy Community within the District.
- 2.6.2 The [Crawley Growth Programme](#) is a collaboration between a range of organisations and funders, including the Coast to Capital LEP, West Sussex County Council, Gatwick Airport, Manor Royal Business District, and Metrobus alongside Crawley Borough Council to coordinate the investment of over £30 million in sustainable economic growth in Crawley. This includes investments in sustainable transport infrastructure and the delivery of new homes in Crawley Town Centre.
- 2.6.3 In its [Master Plan \(2019\)](#), Gatwick Airport commits to updating its 2010 Decade of Change Sustainability strategy in order to continue reducing the airport's environmental footprint. It also highlights its support to national and international initiatives to reduce greenhouse gas emissions from aviation in order to meet the Committee on Climate Change's planning assumptions for total UK aviation emissions to be met. The Airport, the Borough Council and West Sussex County Council have signed a S106 Agreement which includes obligations on the Airport to:
- reduce its climate impact and help to reduce the impacts of the aviation industry as a whole;
 - Manage its assets and activities to mitigate the Airport's impact on the water environment;
 - Update and publish its report by June 2024 on the Airport and Climate Change, and thereafter continue an ongoing dialogue on climate change initiatives with local authorities and other key stakeholders.

2.6.4 Various commitments, including in relation to climate change, air quality, surface access, and water, waste and energy management are also set out in Gatwick Airport’s Action Plans and monitored annually by the councils as part of their Obligations under the S106 Agreement.

2.7 Evidence

2.7.1 **National Greenhouse Gas emissions** are assessed against a series of legally set 5-year ‘Carbon Budgets’. As of March 2023, six carbon budgets, covering the period 2008 to 2037, have been incorporated into UK legislation. The sixth carbon budget, for the period 2033-37, is the first set in relation to the Government’s ‘net zero’ 2050 target (introduced into law in 2019).

2.7.2 The 2022 Progress Report of the Climate Change Committee identified that the ‘UK Government now has a solid Net Zero strategy in place, but important policy gaps remain’, and that ‘progress is lagging the policy ambition’. Key indicators for transport, buildings, manufacturing and construction and agriculture were identified as being off track.

2.7.3 **Local greenhouse gas emissions** estimates are produced by the Department of Business, Energy and Industrial Strategy. Figures 2.1 and 2.2 below are derived from the most recent release of this data (which excludes emissions not capable of being ascribed to individual authorities, such as aviation and shipping), and compare per capita emissions in Crawley to those of West Sussex, the wider South East, and England as a whole. Figure 2.1 extends over the period 2014-20 but excludes emissions from agriculture and waste management, which are only included in the Local Authority-level statistics from 2018 onwards. Figure 2.2 covers the period 2018-20 and includes agricultural and waste management emissions.

Figure 2.1: Annual per capita CO2e emissions trend in Crawley, West Sussex, the South East, and England 2014-20, excluding agricultural and waste management emissions (UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2020, BEIS, 2022)

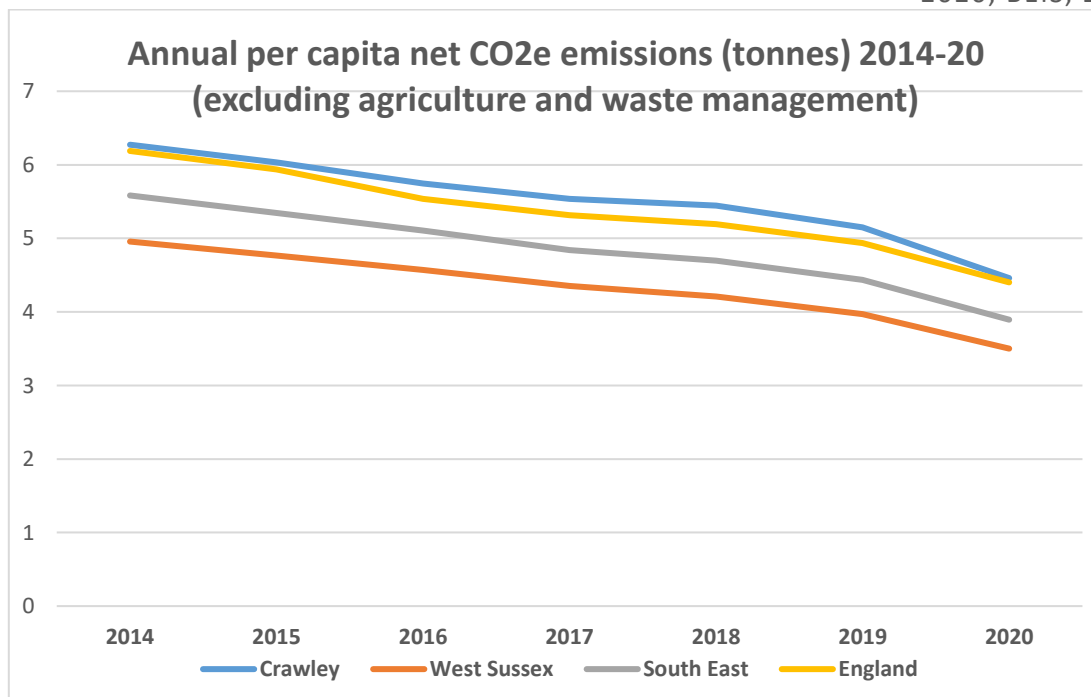
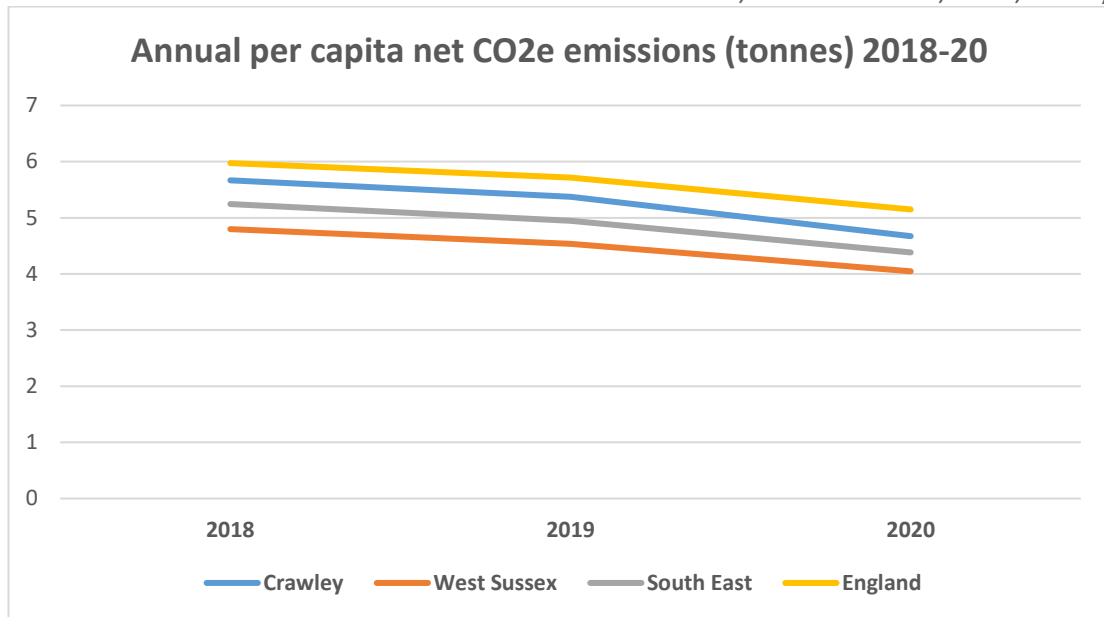


Figure 2.2: Annual per capita CO₂e emissions trend in Crawley, West Sussex, the South East, and England 2018-20 (UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2020, BEIS, 2022)



- 2.7.4. Both charts show emissions in Crawley following a downward trajectory similar to that at county, regional and national level, although whereas Figure 2.1 shows per capita emissions in Crawley at or above the national average, the inclusion of agriculture and waste management (the former of which in particular is a negligible presence in Crawley) in Figure 2.2 reveals Crawley to be a little below the national average, but above the averages for the county and region.
- 2.7.5 The specific profile of Crawley’s net emissions can be highlighted by breaking them down into the main categories used in this dataset and comparing these with other spatial scales. Figure 2.3 again covers the longer period 2014-20 and includes six categories of emissions (Industrial; Commercial; Public Sector; Domestic; Transport; and Land Use, Land Use Change and Forestry), while Figure 2.4, covering the shorter period 2018-20, adds agriculture and waste management.

Figure 2.3: Breakdown of annual per capita CO2 emissions in Crawley, West Sussex, the South East, and England over 2014-20, excluding agricultural and waste management emissions (UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2020, BEIS, 2022)

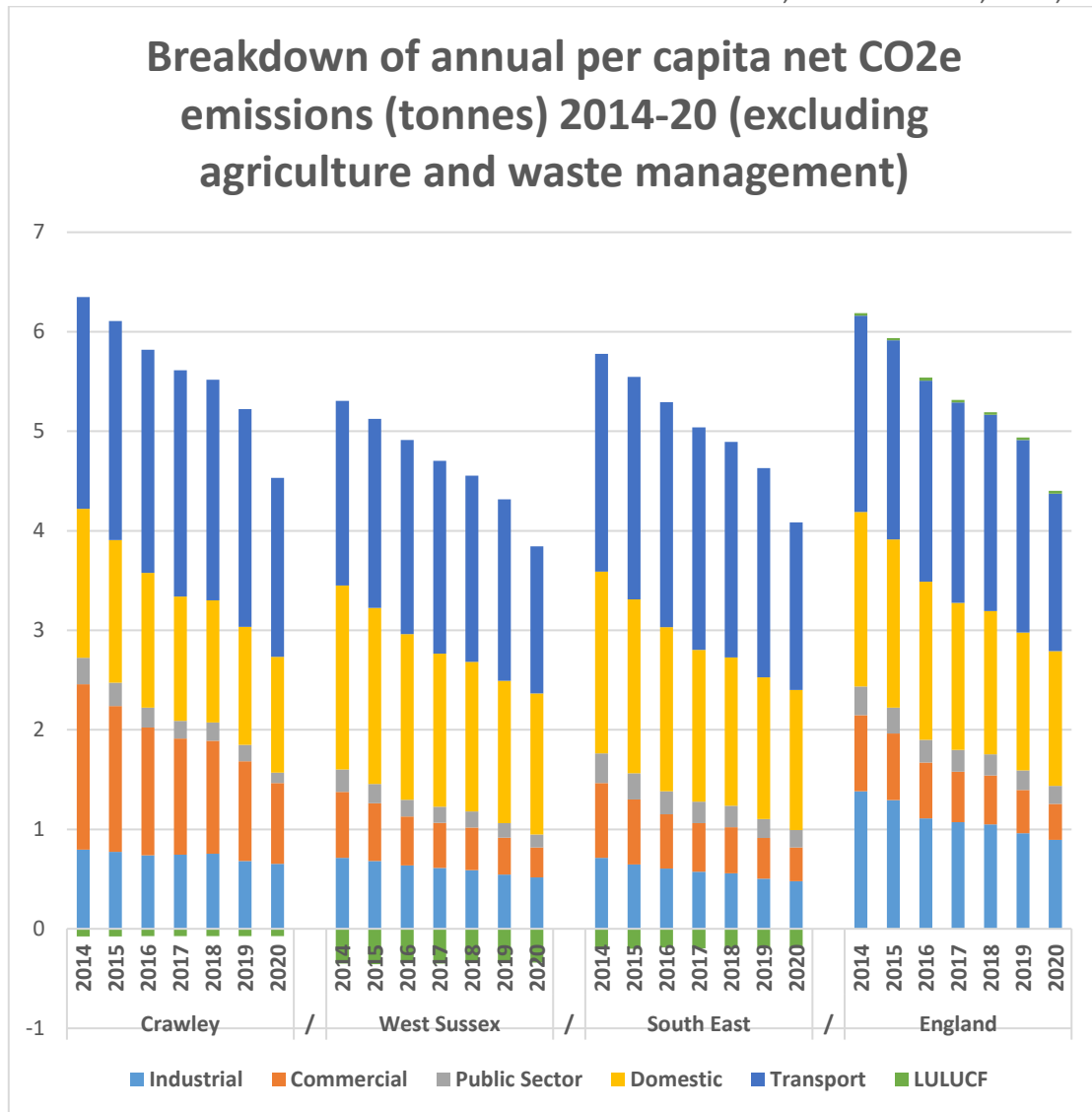
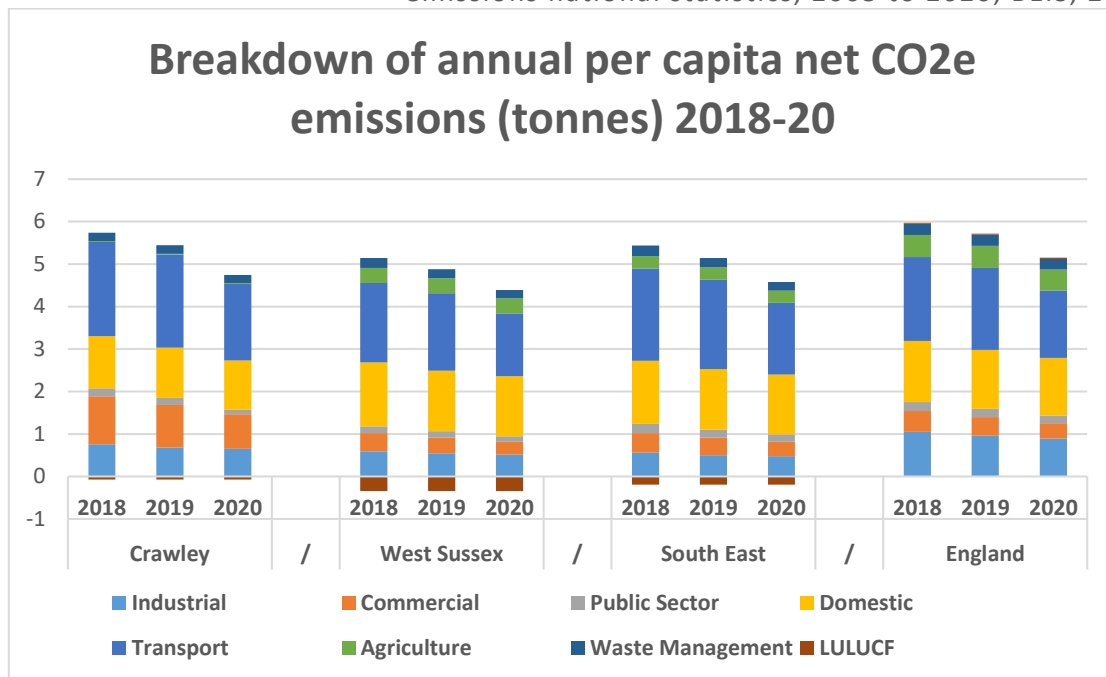


Figure 2.4: Breakdown of annual per capita CO2 emissions in Crawley, West Sussex, the South East, and England over 2018-20 (UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2020, BEIS, 2022)



2.7.5 Figures 2.3 and 2.4 highlight a number of specific features of Crawley’s emissions profile, when compared with other areas, for example:

- Per capita industrial emissions are somewhat higher than the averages across West Sussex and the South East, but significantly below the national average.
- Per capita commercial emissions are high by county, regional and national standards. This can be considered as a reflection of Crawley’s significance as a focus and commercial activity for the wider area.
- Domestic emissions are lower than the averages across West Sussex, the South East, and England as a whole. This is likely to be a product of Crawley’s urban form, with a higher proportion of people living in flats and terraced or semi-detached houses sharing party walls/ceilings/floors with other properties, and potentially also with a smaller amount of heated living space per person.
- The contribution of Land Use, Land Use Change and Forestry – usually in the South East a net negative as a result of carbon sequestration – is significantly less marked in Crawley than across West Sussex (and to a lesser extent the South East) as a whole, and closer to the national average. This again would seem to reflect the limited physical extent of the borough and its predominantly urban character.

In other respects – particularly in terms of the trajectory of per capita emissions – Crawley would seem to be much like other areas. At each scale, 2020 stands out as a year in which per capita transport emissions – previously stagnant or slightly increasing – fell significantly, presumably due to the restrictions imposed in response to the Covid-19 pandemic. This resulted in a greater overall reduction than seen in earlier years. Prior to this the decline in per capita emissions was driven to a significant degree by the commercial sector, and to a lesser extent the domestic and industrial sectors.

- 2.7.6 As part of the council's corporate efforts to mitigate its own contribution to climate change and that of the borough as a whole (described in section 2.5 above), the [Climate Emergency Support](#) report was commissioned from Anthesis in June 2020. This is partly a tool to assist the council in preparing a detailed action plan for the reduction of its own emissions, and as such covers some material which is not directly related to planning. However, the report includes an assessment of the emissions of the borough as a whole and the most appropriate measures to be taken to reduce these in line with local and national commitments. Different methodologies for quantifying local emissions are compared, and different potential pathways to the achievement of net zero emissions by 2050 are identified. The 'SCATTER Level 4' pathway is then further expressed in terms of energy systems interventions required by 2025, 2030 and 2050.³ Interventions for 2025 which are particularly relevant to the planning system include:
- New build domestic housing to PassivHaus or equivalent standard;
 - 13% of all homes to be fitted with heat pumps, and nearly 1% with district heating;
 - 16% reduction in commercial heating and cooling demand;
 - 25% reduction in passenger miles travelled by car;
 - 6% reduction in car transport share against 2015 levels (with associated increases in public transport, walking and cycling);
 - 64% of cars and 88% of buses to be ultra-low emission or hybrid;
 - 51% reduction in industrial emissions;
 - Rapid scaling up of renewable generation capacity.
- 2.7.7 **Monitoring of policy implementation** has been undertaken as part of the council's Authority Monitoring Reports, both in relation to the policies in the 2015 Local Plan which relate to climate change, and in relation to the related indicators set out in the supporting Sustainability Appraisal.
- 2.7.8 Overall the Local Planning Policies are considered to have been effectively implemented, with achievements having included:
- the consistent achievement of emissions standards in major new residential developments which make significant advances beyond minimum Building Regulations requirements;
 - widespread implementation of the BREEAM 'excellent' minimum standards for energy and water in new non-domestic buildings;
 - widespread implementation of the 'optional' 110 litres/person/day water efficiency target.
- 2.7.9 Some areas of partial or inconsistent implementation were identified through the annual monitoring in the years immediately following the adoption of the Local Plan but are now considered to have been addressed, as follows:

³ SCATTER stands for 'Setting City Area Targets and Trajectories for Emissions Reduction', and is an interactive tool funded by the Department of Business, Energy and Industrial Strategy to help Local Authorities understand and monitor area-level greenhouse gas emissions. The Level 4 trajectory is a decarbonisation pathway within the tool which achieves carbon neutrality by the late 2040s, with the help of regional and local initiatives which go beyond national policy.

- Inconsistency in ensuring that smaller-scale developments which were required to submit a Sustainability Statement in accordance with Policy ENV6 in fact did so was addressed through the adoption of an updated Local List of Validation Requirements, putting this document requirement on a surer basis.
- Partial or inconsistent implementation of the requirement for additional and replacement tree planting in accordance with Policy CH6 has been overcome through greater familiarity with and understanding of the policy, partly as a result of the adoption of the Green Infrastructure SPD in 2016.

2.7.10 Monitoring indicators for SA Sustainability Objectives concerned with climate change have developed as follows:

- Emissions from Crawley Borough Council's own activities appear to be following a downward trajectory overall, although the evidence is complicated by changes to the approach to monitoring;
- Per capita CO₂ emissions have fallen, albeit at a slow rate (as detailed in figures 2.1 and 2.2 above);
- Residual household waste (i.e. not recycled or composted) collected per capita was relatively stable until 2020-21, which saw an increase which can be attributed to the Covid-19 lockdown;
- Environment Agency objections to developments on flood risk/water quality grounds have been resolved/satisfied before granting planning permission.

2.7.11 The [Crawley Compact Residential Development Study](#) (2023) has been prepared to identify and highlight the potential for development within Crawley to achieve a more compact form while responding to existing character, maintaining high standards of design and delivering a high quality of accommodation, in accordance with draft Local Plan Policies CL3 and CL4. This approach is consistent with the emphasis placed in the NPPF on making 'effective use of land', and provided that it is pursued in a careful and balanced fashion it has significant potential benefits in terms of climate change mitigation. A more compact form of development will help to reduce travel distances and improve the viability and feasibility of a wider range of sustainable transport choices, including public transport, walking and cycling, thereby reducing the demand for land for parking. It will also create opportunities to use energy more efficiently, including through the development of local energy networks.

2.7.12 [The Crawley Decentralised Energy Study](#) (2011), which was prepared to support the 2015 Local Plan is still considered to be relevant in its highlighting of the potential for the development of District Energy Networks within Crawley, and the identification of particular opportunity areas where combined heat loads are likely to be able to support such Networks. These include the town centre where a district heat network was established in 2022, and the Manor Royal Business District which is the focus for the 'Re-Energise Manor Royal' project referred to in para. 2.6.1 above. The study also considers a wider range of low/zero carbon technologies in terms of their applicability to Crawley, noting in particular the opportunities for expansion of solar PV, solar thermal, and heat pump technologies.

- 2.7.13 The 2020 **Gatwick Sub-Region Water Cycle Study**⁴ assesses the implications of the Local Plan strategy on water resources and infrastructure in the context of a changing climate. It identifies key environmental and infrastructure constraints and means by which the environmental impact of new development can appropriately be mitigated. In common with most of the South East, the Gatwick sub region is an area of serious water stress, whereby anticipated demand for water is greater than the available supply. This has implications for the Sussex North Water Resource Zone (WRZ), from which Southern Water supplies Crawley and neighbouring areas, particularly in relation to groundwater abstraction at Pulborough. Natural England has raised significant concern regarding current abstraction (or any increase), advising that it cannot conclude with certainty that this is not having an adverse impact on site integrity, through reduction in water levels and deterioration of habitat, at important designated sites. These include Amberley Wild Brooks SSSI, Pulborough Brooks SSSI and Arun Valley SPA/SAC and Ramsar site. This increases the need to ensure that development is resilient in the face of current challenges and anticipated climate change impacts, and the study highlights the importance of water efficiency measures pursued through planning policy to address the significant water stress in the sub-region.
- 2.7.14 Further to the findings of the Water Cycle Study and the issuing of a position statement on development within the Sussex North WRZ by Natural England in September 2021, the council has co-operated with other affected local councils and stakeholders in the development of a Water Neutrality strategy, which will enable the delivery of needed homes, business premises, infrastructure and other development without increasing net water demand within the WRZ. The strategy involves a combination of stricter on-site water efficiency requirements and offsetting within the WRZ to ensure that development does not result in increased water consumption within the zone. The concept of Water Neutrality and the need and scope for a strategy is detailed in the **Water Neutrality Study Part A**⁵, **Part B**⁶, and **Part C**⁷. The background and development of the strategy and the supporting evidence base is further described in the Water Neutrality Topic Paper.
- 2.7.15 The **EcoServ** report (2020)⁸, prepared by Sussex Wildlife Trust, maps the open spaces within Crawley on the basis of their abilities to support the following functions: Accessible Nature, Air Purification, Carbon Storage, Education, Green Travel, Local Climate, Noise Regulation, Pollination and Water Purification. The aforementioned functions are illustrated in a graphical, mapping format for the borough's needs for

⁴ Gatwick Sub-Region Water Cycle Study (August 2020) JBA Consulting:

https://crawley.gov.uk/sites/default/files/2021-01/Gatwick_sub_region_water_cycle_study_August_2020.pdf

⁵ Water Neutrality Study Part A – Individual Authority Areas (July 2021) JBA Consulting:

<https://crawley.gov.uk/sites/default/files/2021-07/Water%20neutrality%20study%20part%20A%20-%20individual%20authority%20areas.pdf>

⁶ Water Neutrality Study Part B – In-Combination Assessment (April 2022) JBA Consulting:

<https://crawley.gov.uk/sites/default/files/2022-04/Water%20neutrality%20study%20part%20B%20-%20in%20combination%20assessment.pdf>

⁷ Water Neutrality Study Part C – Water Neutrality Strategy (November 2022) JBA Consulting:

<https://crawley.gov.uk/sites/default/files/2022-12/Part%20C%20-%20water%20neutrality%20assessment.pdf>

⁸ Eco-Serv-GIS Report (January 2020) Sussex Wildlife Trust:

<https://crawley.gov.uk/sites/default/files/documents/PUB354751.pdf>

each of these in terms of: Capacity, Demand, Benefiting Areas and Gaps Prioritisations, Management Zones, Green Infrastructure Assets. These maps are helpful in understanding areas that positively contribute towards climate change mitigation and where there are issues relating to the ability, expectation and longevity of green assets in areas within the borough.

- 2.7.16 For example, the highest capacity scores for Accessing Nature are around the edge of the borough. This means in areas where capacity is lower, accessing nature may have to be by car or public transport such as when moving from close to the town centre. However, through improving sustainable transport and green infrastructure between, around and on buildings people can be encouraged to go for longer walks, cycle or jog to their destination. Contributions over time towards biodiversity net gain can be visualised by the Air Purification and Carbon Storage maps. Were the amount of trees and soft landscaping to increase and fertile vegetation and soil of good quality to be laid the capacity scores are likely to increase. In this way the EcoServ report highlights the contribution which improved ecosystems can make to climate change mitigation. It is expected that this contribution will be further clarified over time, following the adoption of the emerging Local Plan, through updates to this data.
- 2.7.17 By graphically explaining green infrastructure within the borough and its physical and mental health benefits, the Ecoserv report exemplifies where green infrastructure is critical to mitigation of, and adaptation to, the effects of climate change. Trees contributing to the green infrastructure network which connects green assets together across the borough, green assets made up of biodiversity e.g. soil, flora, fauna, shrubs, bushes and trees together form green infrastructure. This encourages and enables wildlife to flourish and move within and outside the borough. When planning biodiversity habitats to combat species decline, it is important to take into account water, habitat types and impacts of human activity, including climate change. In relation to biodiversity, there are designated sites of biodiversity importance such as Local Wildlife Sites and large parks and gardens. However, the small connections within the borough such as gardens, structural landscaping and amenity green space help connect these larger sites together and serve a purpose in protection of local biodiversity areas. Areas of Structural Landscaping are designated areas of green assets and, as well as their visual amenity and connectivity benefits, complement mitigating climate change by providing non-hard surfaces to reduce surface runoff.

3. Strategic Issues and the Local Plan Policy Approach

3.1 Land Use, Densification and Movement/Transport Strategy

- 3.1.1 The draft Local Plan approach to land use, densification and movement/transport starts from the recognition of Crawley's status as a sustainable location for additional development, benefiting from excellent transport connections and high quality, high frequency public transport. As such there is potential – identified in the Crawley Compact Residential Development Study – to achieve a more compact pattern of development, with an associated reduction in demand to travel and an opening up of a wider range of transport options. This potential is particularly marked in the Town

Centre and other locations with high frequency public transport links by bus or train, and good access to facilities.

3.1.2 This perspective is reflected in Policies CL3, CL4, ST1, ST2 and ST3 of the draft Local Plan:

- Policy CL3 sets out a general expectation that new developments should seek to exploit and support sustainable transport options and connections, using these to enable a more compact form of development.
- Policy CL4 sets out density-range expectations for residential developments in different areas, subject to character constraints, ranging from a baseline level of 45 dwelling per hectare up to more than 200 dwellings per hectare in highly accessible locations. It provides further detail on how the principle of compact development will be applied in relation to developments of significant scale elsewhere, including requirements for how they will be situated in relation to public transport services.
- Policy ST1 sets out general requirements in respect of the approach to the transport impacts of development, including requirements in respect of Transport Statements/Assessments and Travel Plans/Mobility Strategies, and the consideration of residual highways impacts. Developments generating a significant demand for travel or with other transport implications (i.e. major developments with operational transport needs, as identified in the Reasoned Justification) are expected to make a financial contribution towards off-site sustainable transport infrastructure, including schemes identified in the Local Cycling and Walking Infrastructure Plan, in accordance with the formula set out in the Planning Obligations Annex. The formula factors in distance from transport nodes, so that the financial burden is smaller for better connected developments.
- Policy ST2 applies the Car and Cycle Parking Standards which are set out in the Parking Standards Annex. These are informed by West Sussex County Council guidance on parking in new developments and include requirements in respect of the provision of electric vehicle charging points with new parking spaces. The requirements set out in relation to EV charging infrastructure are identified as being applicable until 'the introduction of national requirements for EV charging infrastructure in new developments, through Building Regulations or otherwise'. National requirements are included in Building Regulations Approved Document S: infrastructure for charging electric vehicles, which has been in effect since 15 June 2022 and is due to become fully effective in June 2023, when associated transitional arrangements expire. However, CBC notes that elements of the Building Regulations have been identified as Retained EU Law and are therefore potentially subject to sunseting as a result of the Retained EU Law (Revocation and Reform) Bill, which at the time of writing is being considered by Parliament. The local requirements have therefore been retained as part of the Parking Standards Annex pending removal of the legal uncertainty arising from the status of parts of the Building Regulations as retained EU law.⁹

⁹ Retained EU Law Dashboard (2022), BEIS: <https://www.gov.uk/government/publications/retained-eu-law-dashboard>

- Policy ST3 requires that developments or improvements in the vicinity of railway stations within the borough will be expected to enhance the specific roles of those stations, as identified in the policy.

3.2 Energy Standards

- 3.2.1 Policies SDC1, SDC2 and SDC3 set out the approach for considering the environmental performance of development in terms of climate change mitigation and adaptation. They take account of the framework set by legislation, national policy, guidance, and good practice, while responding to the challenge of climate change, the specific and relatively large profile of the borough's emissions, the opportunities of the Crawley context, the council's Climate Emergency Declaration and the constraints of development viability. They have been prepared against a background of change and some uncertainty regarding national standards, and in the expectation that new national standards will in some respects supersede the proposed local requirements early in Local Plan period. The policy approach seeks to provide clarity in this context.
- 3.2.2 Policy SDC1 is the overarching Strategic Policy in respect of the approach of development to climate change mitigation and adaptation. Like Policy ENV6 of the current Plan, it approaches the issue of climate change mitigation in terms of the energy hierarchy: 'be lean' (reduce energy demand), 'be clean' (maximise efficiency of energy supply), and 'be green' (provide energy from low or zero carbon sources). This hierarchy is a familiar part of recognised good practice and a standard device for describing the carbon implications of development in Sustainability and Energy Statements. The underlying logic to this approach is that reducing energy demand and reducing losses involved in the supply of energy are very often simpler and cheaper than the provision of additional low/zero carbon energy capacity. Since they relate to issues of building fabric, design and construction they are also significantly harder and more expensive to achieve through retrofitting than the provision of additional 'green' energy supply. For these reasons national standards in respect of building performance (such as the 2013 and 2021 editions of Approved Document L) include energy efficiency requirements as well as emissions limits.
- 3.2.3 The policy sets specific 'be Lean' requirements in respect of new dwellings, other new buildings, and major developments. New buildings are thus required to achieve compliance with the carbon emissions limits set in the 2013 Building Regulations before any allowance has been made for the inclusion of low/zero carbon energy sources. This would represent a limited tightening of energy efficiency requirements compared with those which are set out in the 2013 Building Regulations. However, given that the 2013 version of Part L of the Building Regulations has been superseded by the updated and more stringent 2021 version (subject to transitional provisions due to expire on 15 June 2023) the requirement is disapplied where a development would no longer be subject to the earlier standard. The policy also requires that major residential developments implement a recognised quality regime to ensure that 'as built' environmental performance matches the modelled design performance.
- 3.2.4 For the 'Be Clean' element in the energy hierarchy the policy cross-refers to Policy SDC2, which is further discussed below.

- 3.2.5 The 'Be Green' requirement sets an overall energy/carbon performance standard for new buildings, which can be met by any combination of energy efficiency measures, supply efficiencies, and low/zero carbon technologies.
- 3.2.6 For dwellings the 'Be Green' requirement is whichever of the following is most efficient in terms of carbon dioxide emissions:
- a 19% reduction in CO₂ emissions compared with the 2013 Building Regulations;
 - a new mandatory national emissions standard, introduced via Building Regulations or otherwise.
- 3.2.7 The first of these options is equivalent to Level 4 of the Code for Sustainable Homes, and as such is consistent with Planning Practice Guidance. This standard is also considered appropriate in light of the council's Climate Emergency Declaration and the example set by the council on its own housing schemes, which have met this level of performance for a number of years and are increasingly exceeding it.
- 3.2.8 The second option has been added to provide clarity that the Code Level 4 equivalent standard will be superseded by any more stringent mandatory national standard, including one introduced via the Building Regulations. The 2021 edition of Part L of the Building Regulations includes a more stringent emissions standard than the Code Level 4 equivalent (representing on average a 31% reduction in CO₂ emissions compared with the 2013 Building Regulations) and is due to become fully effective from 15 June 2023, when current transitional arrangements are set to expire. Therefore, it is anticipated that the 2021 version of Part L and any subsequent updates introduced as part of the introduction of the 'Future Homes Standard' will be the default standard for new dwellings. However, the Building Regulations standards are subject to a degree of legal uncertainty on account of the Retained EU Law Bill, which includes a default December 2023 sunset for retained EU law, including the energy efficiency requirements set out in Building Regulations.¹⁰ The Code Level 4 equivalent standard has, therefore, been retained within draft Policy SDC1 as an option, pending removal of this legal uncertainty.
- 3.2.9 For other buildings the current Local Plan requirement to achieve the BREEAM 'excellent' minimum standards for energy and water is carried forwards, subject to separate requirements in respect of Water Neutrality which are set out in Policy SDC4.
- 3.2.10 In respect of Climate Change adaptation, the Policy cross-refers to Policies SDC3 (Tackling Water Stress) and SDC4 (Water Neutrality), which are discussed further in section 3.3 below, and requires that new buildings and other development comprising a material change of use (as this is defined in the Building Regulations) cope with future temperature extremes and mitigate their contribution to heatwave events in accordance with the cooling hierarchy, whereby the most environmentally sustainable solution is to be used.
- 3.2.11 Compliance with the Policy at the planning application stage is to be assessed on the basis of a Sustainability Statement forming part of the submission. The Policy sets out

¹⁰ Retained EU Law Dashboard (2022), BEIS: <https://www.gov.uk/government/publications/retained-eu-law-dashboard>

thresholds for this requirement, which are intended to capture circumstances where significant changes to energy demand and building services would occur, or where requirements for 'consequential improvements' to a building's energy performance are required under the Building Regulations. Some types of development which meet these thresholds are not subject to specific standards in terms of energy performance under the Policy, but are subject to more general requirements to consider appropriate energy and carbon efficiency measures, and describe those which are proposed.

3.3 District Energy Networks

3.3.1 Policy SDC2 promotes the development of District Energy Networks and decentralised energy (involving local generation and distribution at scale of energy in the form of heat, cooling and electricity), with particular requirements applying in respect of major developments, and in respect of other specific forms of development within identified District Energy Network priority areas. Developments meeting the specific thresholds of the policy are required to develop their energy strategy in accordance with a hierarchy of options, depending on the presence of an existing District Energy Network, and the feasibility of other options including site-wide communal energy systems and 'future proofing' by designing with the capability to connect to a future network. Where none of these options are able to be pursued the policy sets a requirement for a minimum proportion of the energy needs of the development (10% or 20%) to be derived from low- or zero-carbon sources located on or near the site. This reserve requirement makes use of powers available under the Planning and Climate Change Act 2008 and referred to in Planning Practice Guidance to impose 'reasonable requirements for a proportion of energy used in development in their area to be energy from renewable sources and/or to be low carbon energy from sources in the locality of the development.' This need not be additional to any use of low- and zero-carbon technology required to meet the standards detailed in Policy SDC1.

3.3.2 The District Energy Network areas identified in the Policy are:

- The Town Centre, where a district heat network has been constructed as part of the Town Hall redevelopment scheme and is now operational;
- The Manor Royal business district, which is the focus of significant demand for process heating and cooling, and where options for decentralised energy are being developed as part of the Re-Energise Manor Royal project;
- The Forge Wood neighbourhood, representing the last location of strategic residential development within the borough's administrative boundary;
- The K2 Leisure Centre and the neighbouring housing allocation at Land Adjacent to Desmond Anderson, where there is scope to base a district energy network on the leisure centre's Combined Heat and Power (CHP) energy supply;
- The Strategic Employment Location allocated at 'Gatwick Green'.

With the exception of the new allocation at Gatwick Green, these areas are identified as potential areas for District Energy Networks in the 2011 Decentralised Energy Study.

3.4 Water Efficiency and Water Neutrality

- 3.4.1 Policy SDC3 sets out the approach which development, where located outside of the Sussex North Water Resource Zone, is expected to take in addressing the issue of water stress, as established in the Water Cycle Study referred to above. It retains the 110 litres/person/day 'optional' Building Regulations standard for residential development as included in the adopted 2015 Plan, as well as the existing requirement for non-residential development to meet the minimum water standards for BREEAM 'Excellent'.
- 3.4.2 In addition, Policy SDC4 sets out how development within the Sussex North WRZ will be required to achieve water neutrality. This policy has been developed in cooperation with other councils in response to the evidence provided by the Water Cycle Study and Water Neutrality Study.¹¹ In order to maximise on-site water efficiency and thereby reduce pressure on offsetting credits, residential development will be required to achieve a standard of 85 litres/person/day (representing the equivalent of the former Code for Sustainable Homes Level 5). New non-domestic buildings will meanwhile be required to score 3 credits within the BREEAM water (WAT01 Water Consumption) issue category. Following the achievement of on-site water efficiency, any remaining net increase in mains supplied water use must be offset elsewhere within the WRZ.
- 3.4.3 The additional costs arising from Policy SDC4 for residential development have been estimated at around £2,000 per dwelling, and an Addendum to the Local Plan Viability Assessment¹² has been produced to test the impact of this increase. This is in addition to the uplift of 5% on build costs already included in the Assessment to reflect the additional development costs arising from the introduction of more advanced environmental performance standards at local and national level, and for the requirement for Biodiversity Net Gain. The Addendum also includes additional allowances for the cost of providing electric vehicle charging points in accordance with the requirements detailed in para. 3.1.2 above.¹³

3.5 Flood Risk Management

- 3.5.1 The proposed Local Plan approach in relation to Flood Risk Management is set out in Policies EP1 and EP2. Policy EP1 applies approaches to the sequential and exception tests for the location of development in accordance with national policy and guidance, and sets thresholds for the requirement for a Site Specific Flood Risk Assessment. It further states that development must:
- demonstrate that peak surface water run-off rates and annual volumes of run-off will be reduced through the effective implementation, use and maintenance of SuDS, unless it can be demonstrated that these are not technically feasible or financially viable;

¹¹ For further information about the development of the water neutrality strategy and Policy SDC4 please see the Water Neutrality Topic Paper: <https://crawley.gov.uk/sites/default/files/2023-05/9.%20Joint%20Topic%20Paper%20Water%20Neutrality%20May%202023.pdf>

¹² Crawley Borough Local Plan Review: Viability Assessment – Update (December 2022) DixonSearle: <https://crawley.gov.uk/sites/default/files/2023-02/Viability%20Assessment%20update%20December%202022.pdf>

¹³ Viability Assessment – Update (2022). The EV charging infrastructure allowance is £865 per unit for houses and £1,961 per unit for flats:

- make appropriate provision for surface water drainage to ground, water courses or surface water sewers. Surface water will not be allowed to drain to the foul sewer;
- not be permitted to take place within 8 metres from the top of any Main River or 12 metres from any Ordinary Watercourse without prior consent from the Environment Agency, nor within 3 metres of any Thames Water sewer system without prior consent from the sewerage undertaker;
- post construction, provide to the council certification of the drainage works from a third party professional. This should not be the consultant who designed the drainage features. This will be to ensure that the drainage details and design submitted for planning application has been constructed in line with the submitted documents.

3.5.2 Because the requirements of Policy EP1 would not in many cases be applicable to householder developments and small non-residential extensions, and because such developments nonetheless have a cumulative potential to affect flood risk, Policy EP2 is included. This sets out the requirement for such developments within flood zones 2, 3a and 3b to provide a Flood Resilience Statement, demonstrating on a proportionate basis how any loss of flood storage resulting from the development would be appropriately mitigated; and showing that the development in question is resilient to the level of flood risk to which it is exposed, over its lifetime and taking climate change into account.

3.6 Air Quality

3.6.1 The issue of air quality partly arises in the context of Policy SDC1, with its requirement for ventilation measures to be designed in accordance with the ‘cooling hierarchy’, as identified above. The contribution and exposure of development to poor air quality more generally is meanwhile the focus of Policy EP5. This builds on the approach of current Local Plan Policy ENV12, while setting out expectations from development in clearer detail, including the requirement for a financial contribution towards emissions mitigation in certain circumstances, in accordance with the 2021 update to the Air Quality and Emissions Mitigation Guidance for Sussex. Further supporting information is provided in the Planning Obligations Annex.

3.7 Green Infrastructure

3.7.1 The proposed Local Plan approach in respect of Green Infrastructure reflects the benefits of Green Infrastructure assets both in helping to mitigate climate change, for example through carbon sequestration through plants, trees and soils, and in assisting adaptation, through the potential of green infrastructure assets to mitigate climate change impacts such as overheating, poor air quality, flood risk, and soil degradation. Soils are important reservoirs of active carbon and play a major role in the global carbon cycle. The predominantly clay soil type in Crawley plays a role in nurturing trees and biodiversity habitats to absorb CO₂ within their locality. Well-draining soil filled with microbial life is important for a healthy green infrastructure network.

3.7.2 The Open Space, Sport and Recreation Assessment indicates that there may be a potential deficit in most open space typologies in the future, as a result of future population growth. Policies have been adapted slightly to ensure compensation or

relocation is provided when Open Spaces are lost and to direct improvements and enhancements to maximise capacity of the borough's existing open spaces and increase opportunities to introduce multi-functionality benefits within them.

- 3.7.3 Policy GI3: Biodiversity and Net Gain is concerned with the conservation and enhancement of trees and soft landscaping following government guidance to ensure a net gain in relation to biodiversity on site.
- 3.7.4 Policy DD4 enforces a high replacement standard for trees lost to development, taking into consideration their girth and time to mature. Initially, tree planting is expected on-site. However, off-site contributions can be agreed with the council. The policy recognises that the loss of a tree is likely to increase the requirement of net gain for Policy GI3 and particularly, it is noted that a net loss of biodiversity is likely to be incurred due to the value of mature trees being felled which can lead to a higher number of trees needed on top of the development replacement requirements.
- 3.7.5 The Green Infrastructure SPD Appendix 6 lists the individual specimens and species of trees and soft landscapes that are appropriate to be planted within Crawley, taking into consideration the proximity of Gatwick Airport and issues related to bird strike. Native species of mixed woodland plants for southern clay soils such as Field Maple, Alder, Common Ash, Wild Cheery, English Oak, Small-Leaved Lime or a Service Tree are ideal for Crawley. Appendix 6 also lists security planting mixes, native shrub species, other suitable native and non-native mixed woodland trees, non-native ground cover plants and native grass seed mixtures for clay soils and tall edge or hedgerow mixes and finally, wildflower grasslands for the Weald that are suitable to be planted in Crawley. Dependent on which tree is planted and distance to others of the same or different species it can provide a variety of biodiversity and habitats for wildlife and contribute to a rich biodiversity to offset a negative development to climate change.
- 3.7.6 The Emerging Local Plan has a stronger focus on encouraging and facilitating Biodiversity Net Gain. In relation to climate change, effort is being made to ensure policies within the emerging Local Plan have the ability to encourage healthy Sustainable lifestyles throughout the natural, built and historic environment. Through a biodiversity lens, Policies GI2, GI3 and CL6 aim to ensure green infrastructure is well connected as a network within the borough. There is an increased effort to continue the prioritisation of protected biodiversity sites and an emerging focus on securing net gain on new development sites. In this Plan, focus is building on trees and types of soft landscaping that are capable of leading towards a net gain in biodiversity. Consideration is needed to be given for the appropriate species of trees or types of soft landscaping to be planted and this revolves around questions on the natural asset themselves, including whether a tree or type of soft landscape is of a native species, its potential to adapt to climate change and how it affects air quality, pollination, flood alleviation and its benefit to climate change adaptation/mitigation.
- 3.7.8 Many of the benefits of Green Infrastructure in terms of open space, biodiversity, structural landscaping can also be realised in the form of SuDS, provided in accordance with Policy EP1, to manage potential flood risks.
- 3.7.9 As highlighted in the EcoServ GIS Report summarised in the previous chapter, biodiversity net gain requirements not only benefit nature itself but where the

amount of trees, soft landscaping and soil fertility are increased, their capacity for air purification and carbon storage increases, supporting adaptation to climate change. This report is beneficial in connection to Policy GI3: Biodiversity and Net Gain, as it covers a wide range of issues the implementation of net gain is seeking to tackle through an in-depth visual display of measuring tools linked to biodiversity and net gain changes. This can enable positive adaptations to climate change through enhancing knowledge of where and when adaptations need to be made in a local environment.

4. Conclusions

- 4.1 Local Planning Authorities have clear responsibilities under legislation and policy to contribute to climate change mitigation and adaptation, including through the Plan making process.
- 4.2 At a national scale, progress towards the government's Net Zero 2050 target is partly off track, and the Climate Change Committee has identified significant delivery risks regarding to plans for meeting the UK's 2030 Nationally Determined Contribution under the Paris Agreement process, and for the Sixth Carbon Budget (2033-37).
- 4.3 Local emissions estimates confirm that Crawley has a level of per capita greenhouse gas emissions which exceeds the averages for West Sussex and the South East, but remains below the national average. Emissions are falling at a similar rate to West Sussex, the South East and England as a whole. Rates of decline across different sectors are likewise comparable to averages for wider areas, although the specific breakdown of per capita emissions within Crawley reflects Crawley's specific character as an urban area and as a significant focus of industrial and commercial activity for the wider area.
- 4.4 The Submission draft Local Plan 2024 sets out to support climate change mitigation and adaptation in ways which are consistent with legislation, national policy and guidance; which use recognised concepts, metrics and standards; which reflect the ways in which these challenges manifest themselves locally; and which respond to the opportunities and constraints presented by the character of the borough. In some areas this includes interventions of a type whose relevance and applicability is not confined to the local area, such as tighter energy and emissions standards for new buildings. In other areas the approach is more clearly tailored to the local area. These include the proposed water neutrality requirements, as well as measures to promote effective use of land, sustainable travel, and the use of decentralised energy in suitable locations and circumstances.
- 4.5 The Submission draft Local Plan 2024 has been prepared in the knowledge that some of the approaches set out are in the process of being superseded by national changes implemented through Building Regulations, including movement towards the Future Homes Standard for residential dwellings, and new requirements for provision of electric vehicle charging infrastructure. At the time of consultation, there remains some uncertainty regarding the impact of the Retained EU Law Bill on these Building Regulations standards, so local standards have been retained as a back-up.