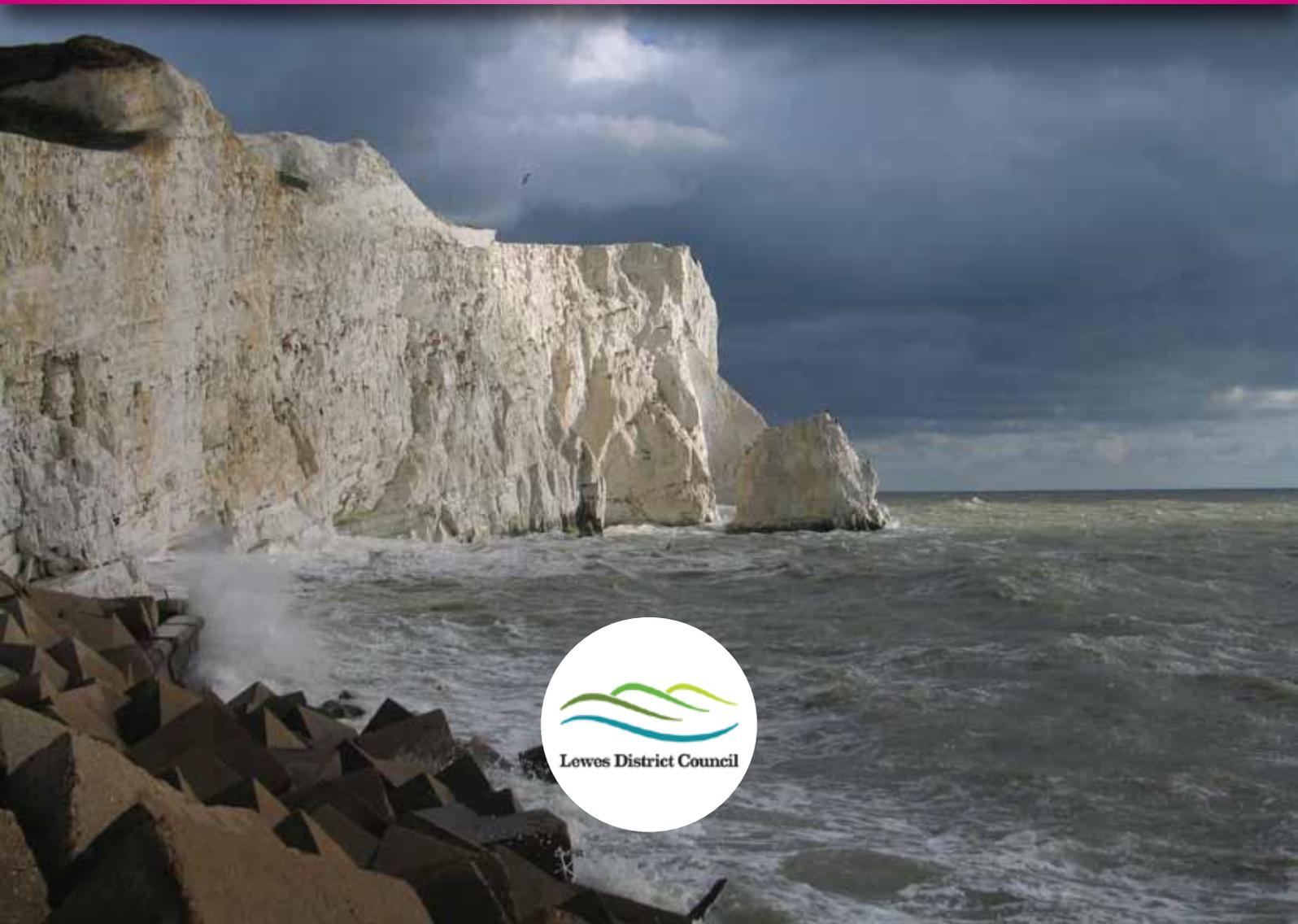




**Lewes District Local Plan:
Issues and Options**

**TOPIC 1:
TACKLING CLIMATE CHANGE**

July 2021





Lewes District Council

Lewes District Local Plan: Issues & Options Consultation

TOPIC PAPERS

A series of Topic Papers have been prepared to support the Lewes District Local Plan Issues and Options Consultation and assist you in understanding the issues and options facing Lewes District (outside of the South Downs National Park) by providing more details on the topic address in the consultation. The topic papers are as follows:



Topic Paper 1 Tackling Climate Change



Topic Paper 2 Protecting and Enhancing the Quality of the Environment



Topic Paper 3 Accommodating and Delivering Growth



Topic Paper 4 Improving Access to Housing



Topic Paper 5 Promoting a Prosperous Economy and Building Community Wealth



Topic Paper 6 Creating Healthy Sustainable Communities with Infrastructure

All of the topic papers are available on-line via the Council's consultation portal.

The topic papers are factual in nature and set out how the topic is covered in current local plan policies, the national planning policy context, how the related issues are addressed in the Lewes District Council Corporate Plan and other strategies, what current evidence and data tells us about the topic, and provides details on the issues raised from these. The questions arising from the topic papers are posed within the Issues & Options document. As such we are not seeking comment on these topic papers.



Topic Paper 1: Tackling Climate Change

1. Introduction

- 1.1 Tackling the climate crisis is a long standing issue in the UK which is reflected in the Climate Change Act 2008 which established a legally binding target to reduce the UK's greenhouse gas emissions by at least 80% in 2050 from 1990 levels. Subsequently in April 2021, in the UK's sixth Carbon Budget the Government amended the target to reduce emissions by 78% by 2035 compared with 1990 levels¹. National policy is clear that planning plays a key role in helping to secure reductions in carbon emissions, providing resilience to climate change and supporting the delivery of low carbon or renewable energy.
- 1.2 In planning for the future of Lewes District and the resilience to climate change the district must become more energy efficient and use more renewable sources of energy in order to meet national and local targets for reduced carbon emissions.
- 1.3 The district pathway to net zero as set out in the Council's Climate Change and Sustainability Strategy 2021 will rely on planning policies to require more energy efficiency from new buildings, to support the delivery of increased renewable energy generation/supply and to reduce reliance on the private car. By supporting the development of more sustainable communities we can reduce the need to travel, enable sustainable modes of transport and support the switch to low emission vehicles.
- 1.5 This Topic Paper has been prepared to consider how the new Local Plan should seek to address these issues and provide options for the plan going forward, but tackling climate change is also addressed by other topic papers, in particular Topic Paper 2: Protecting and Enhancing the Quality of the Environment.

2. Current Local Plan Policies

- 2.1 Core Policy 8 (*Green Infrastructure*) seeks to protect and enhance the quantity, quality and accessibility of the district's green spaces, which perform an important function in terms of adapting to and mitigating the impacts of climate change. The policy requires new development to make provision for new green infrastructure, where appropriate, and provide linkages to the district's existing green infrastructure network.
- 2.2 Core Policy 9 (*Air Quality*) seeks to improve air quality, have particular regard to the any designated Air Quality Management Area (AQMA). The policy requires

¹ <https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035>



applications for development to have regard to the Air Quality Action Plan (AQAP) and provide mitigation where the development or its associated traffic would adversely affect the AQMA. It also requires all applications for development to promote opportunities for walking, cycling and public transport and congestion management to reduce traffic levels in areas of reduce air quality, and to secure best practice methods to reduce levels of dust and other pollutants arising from the construction of development.

- 2.3 Core Policy 11 (*Built and Historic Environment and High Quality Design*) seeks to secure high quality design in all new development in order to assist in creating sustainable places and communities. The policy sets out criteria to achieve this, including that the design of development should adequately address the need to reduce resource and energy consumption.
- 2.4 Core Policy 12 (*Flood Risk, Coastal Erosion, Sustainable Drainage and Slope Stability*) seeks to reduce the impact and extent of flooding, steers development away from areas of floor risk and prevents development on unstable areas of coastline and areas at risk of erosion and slope failure. The policy requires, among other criteria, appropriate management of surface water, and no increase of, run-off from new developments.
- 2.5 Core Policy 13 (*Sustainable Travel*) seeks to promote and support development that encourages travel by walking, cycling and public transport, and reduce the proportion of journeys made by car to achieve a rebalancing of transport in favour of sustainable modes. The policy requires that new development is located in sustainable locations and that its design and layout prioritises the needs of pedestrians and cyclists over ease of access by the motorist.
- 2.6 Core Policy 14 (*Renewable and Low Carbon Energy and Sustainable Use of Resources*) seeks to directly address the use of renewable and low carbon energy and the sustainable use of resources. The policy aims to reduce locally contributing causes of climate change and encourages renewable and low carbon energy in all developments.
- 2.7 These existing strategic policies are considered to be broadly in conformity with the National Planning Policy Framework (NPPF). However, it is acknowledged that they do not fully reflect the Council's ambition to be net zero carbon by 2030, address the climate emergency, and deliver more sustainable and energy efficient homes. Core Policy 12 does not identify a Coastal Change Management Area, as required by the NPPF where the coastline is likely to be affected by significant physical changes over the next 100 years.

3. National Planning Policy and Guidance

- 3.1 Addressing climate change is one of the core land use planning principles which the NPPF expects to underpin both plan-making and decision-taking. There is a



statutory duty² on planning authorities to include policies designed to tackle climate change and its impacts in their local plans.

- 3.2 The NPPF emphasises that responding to climate change is central to the economic, social and environmental dimensions of sustainable development. Paragraph 148 states that the planning system should *help to shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.*
- 3.3 Paragraph 149 states that *plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures.*
- 3.4 The Climate Change Planning Practice Guidance (PPG) sets out the opportunities to integrate climate change mitigation and adaptation objectives into the Local Plan and how the sustainability appraisal can be used to help shape appropriate strategies.
- 3.5 The impact of climate change needs to be taken into account in a realistic way. The PPG states that Locals Authorities should consider:
- identifying no or low cost responses to climate risks that also deliver other benefits, such as green infrastructure that improves adaptation, biodiversity and amenity
 - building in flexibility to allow future adaptation if it is needed, such as setting back new development from rivers so that it does not make it harder to improve flood defences in future
 - the potential vulnerability of a development to climate change risk over its whole lifetime³
- 3.6 The PPG provides guidance on setting energy standards in the Local Plan. Different rules apply to residential and non-residential premises.
- Can set energy performance standards for new housing or the adaptation of buildings to provide dwellings that are higher than the building regulations, but only up to the equivalent of Level 4 of the Code for Sustainable Homes. As set out in the [Written Ministerial Statement on Plan Making](#) dated 25 March 2015
 - Are not restricted or limited in setting energy performance standards above the building regulations for non-housing developments.

² Section 19(1A) of the Planning and Compulsory Purchase Act 2004

³ Planning Practice Guidance – [Climate Change Paragraph 005 Reference ID: 6-005-20140306](#)



- 3.7 The Renewable and Low Carbon Energy PPG sets out how when drawing up a local plan local authorities should first consider what the local potential is for renewable and low carbon energy generation. In doing so the PPG states that local authorities should ensure they take into account the requirements of the technology and the potential impacts on the local environment including from cumulative impacts and the views of local communities likely to be affected should be listened to. Identifying areas suitable for renewable energy in plans gives greater certainty to where such development will be permitted and in the case of wind turbines a planning application should not be approved unless the proposed development site is an area identified as suitable for wind energy development in a local or neighbourhood plan.

4. Council Corporate Plan 2020-24

- 4.1 In July 2019, the District Council declared a climate emergency. The main purpose of this was to commit to becoming carbon net zero and fully climate resilient by 2030. Through partnerships the Council will enable the district as a whole to progress to net zero carbon and to address the ecological emergency.
- 4.2 The Council's focus as set out in its Corporate Plan is to:
- Provide leadership to the district on tackling climate emergency;
 - Create sustainable community wealth;
 - Build homes that people can afford to live in.
- 4.3 The Council is working to progress actions to tackle the climate emergency through its Climate Change and Sustainability Strategy, and the Local Plan will provide an important part of the framework to achieve resilience and net zero carbon. The Corporate Plan sets out the aspiration to have the greenest Local Plan and put sustainability at the heart of the local planning process.

5. Other Strategies/Plans

- 5.1 The Council's Climate Change and Sustainability Strategy 2021 sets out its vision for a net zero carbon and fully resilient council by 2030 and how the council will act as a community leader, providing a framework for action by the council and other partners. The strategy outlines seven action areas to focus efforts in reducing emissions and improving climate resilience and sets out strategic goals and targets.
- 5.2 Draft East Sussex Local Cycling and Walking Infrastructure Plan (LCWIP) sets out an ambitious network of additional cycling and walking routes and measures integrated with existing walking and cycling infrastructure. It is focussed on areas where there is greatest opportunities to increase levels of walking and cycling.



Having the LCWIP in place will put East Sussex County Council in a stronger position to secure future investment towards walking and cycling improvements.

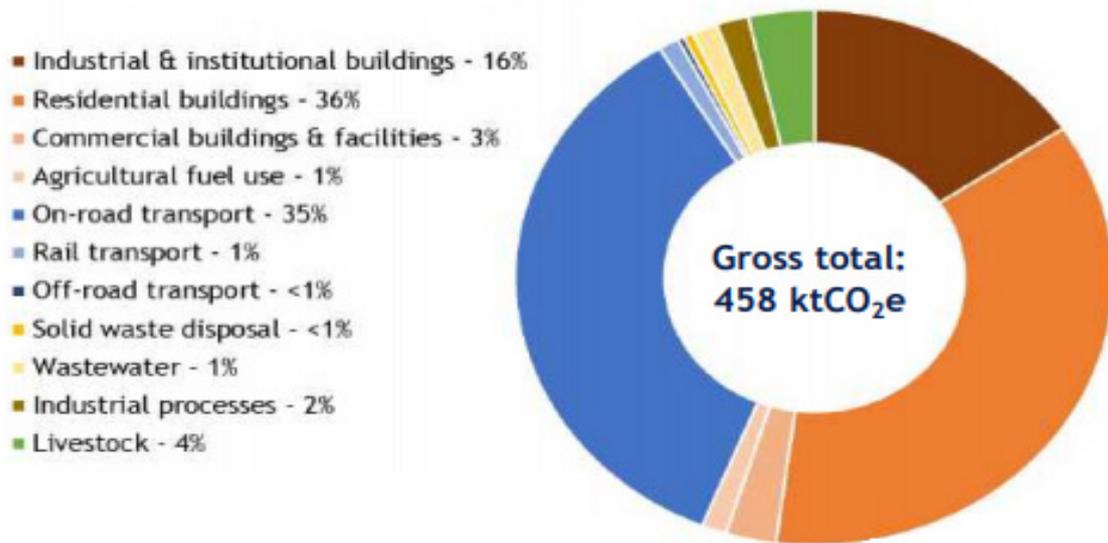
- 5.3 The Newhaven, Peacehaven and Seaford coastal strip is a priority LCWIP area and the preferred network is focussed on delivering key routes connecting the three towns to support the strategic connections on the A259 corridor in the longer term, alongside the delivery of more localised networks in each town to support access to schools, shops and local facilities. The coastal towns are identified as having good potential for large numbers of active travel users as distances between the town centres and the outskirts are all less than 2.5km. The LCWIP proposes new and improvements to existing routes including traffic calming, reduced speed limits and priority crossing.
- 5.4 Department for Business, Energy and Industrial Strategy - Clean Growth Strategy 2017 sets out proposals for decarbonising all sectors of the UK economy through the 2020s. It explains how the whole country can benefit from low carbon opportunities, while meeting national and international commitments to tackle climate change. Achieving clean growth, whilst ensuring an affordable energy supply for businesses and consumers, is at the heart of the UK's Industrial strategy and this strategy sets out policies and proposals that aim to accelerate the pace of 'clean growth'.
- 5.5 In addition to supporting innovation in low carbon technologies the Clean Growth Strategy focuses on policies that deliver social and economic benefits beyond reduced emissions. Higher quality, more energy efficient buildings are healthier places to live and work. Reducing the amount of wasted heat will reduce bills. Accelerating the rollout of low emission vehicles contains a triple win for the UK in terms of industrial opportunity, cleaner air and lower greenhouse gas emissions.
- 5.6 Department for Environment, Food and Rural Affairs - 25 Year Environment Plan – 2019 sets out goals for improving the environment, within a generation, and leaving it in a better state than we found it. It details how the Government will work with communities and businesses to do this over the next 25 years. The Plan aims to deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats. It calls for an approach to agriculture, forestry, land use and fishing that puts the environment first. The Plan also sets out how pressures on the environment will be managed by mitigating and adapting to climate change.

6. Evidence / Data

- 6.1 The Lewes District Council Carbon Emissions Analysis and Pathways 2020 shows the total emissions in the district in 2017 were 458 KtCO₂. The SCATTER inventory tool is used to define the emissions profile for the district, as shown in Figure 1 below. This shows that the dominant sources of emissions are buildings (56%) and transport (37%).



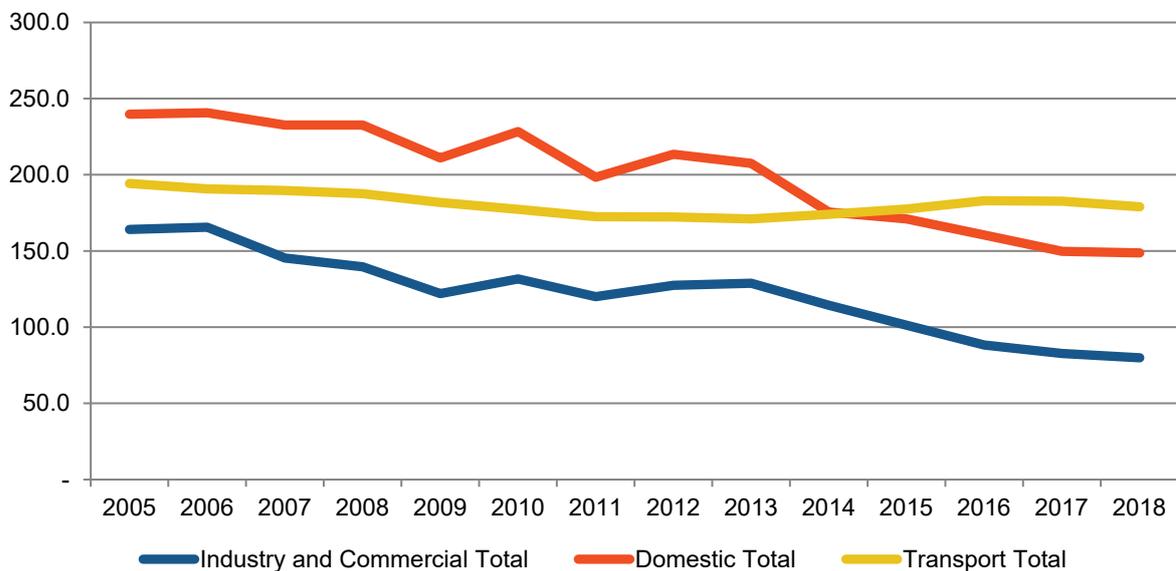
Figure 1: Current emissions inventory in the district



Source: Lewes District Council - [Carbon Emissions Analysis and Pathways](#)

6.2 Data⁴ shows since 2005 CO₂ emissions from industrial and commercial energy consumption in Lewes District have fallen significantly from 164.2kt to 79.9kt a decrease of 51% as shown in Figure 2 overleaf. Emissions from domestic energy consumption have also fallen by 38%. However emissions from transportation have stayed relatively steady falling only by 9% over the 13 year period.

Figure 2: Emissions data 2005 to 2018



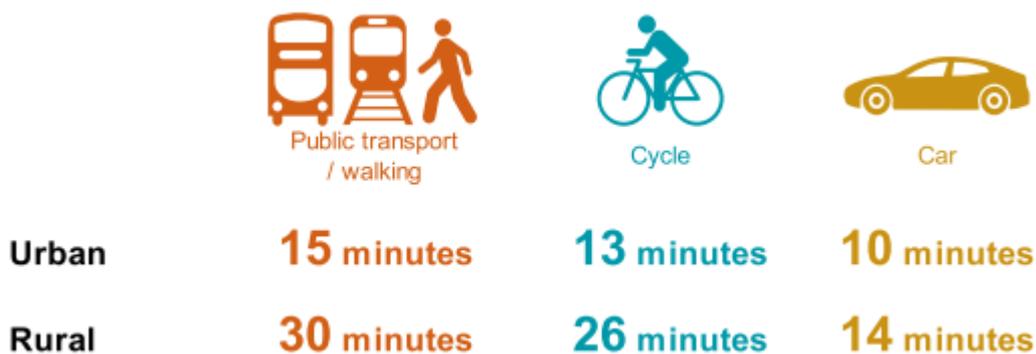
Source: Department for Business, Energy & Industrial Strategy [UK local authority and regional carbon dioxide emissions national statistics 2005 to 2018](#)

⁴ Department for Business, Energy & Industrial Strategy - [UK local authority and regional carbon dioxide emissions national statistics 2005 to 2018](#)



- 6.3 Specifically within domestic emissions, electricity emissions have fallen by 60%, whilst gas only decreased by 20% which could indicate a move towards more efficient appliances and/or electricity consumption being acquired from more sustainable or low carbon sources.
- 6.4 A Renewable Energy and Low Carbon Development Study was prepared in 2010 as part of the evidence base for the adopted Local Plan, alongside an Energy Opportunities Map which identifies the renewable and low carbon technologies that are most viable in different parts of the plan area. The adopted Local Plan sets targets of 12% renewable heat and 30% renewable energy for the district based on outcomes of the study. These targets will largely be met nationally through off-shore wind and other major projects.
- 6.5 Nationally, electricity generation from coal now only comprises just 0.7% of total generation. Despite relatively small increases year on year, electrical generation from renewables is over 40% of total generation, a significant increase in the last 10 years⁵. It is now possible for a home owner to source their electrical supply from solely renewable providers. Nevertheless, the Renewable Energy and Low Carbon Development Study needs reviewing to ensure that the most up to date evidence in terms of technologies are considered
- 6.6 There is limited availability and frequency of public transport in the rural areas of the district. Journey time statistics produced by the Department for Transport as highlighted by Figure 3 below show that average journey times to key services in urban areas have a much lower variation across modes of transport than rural areas, which highlights how important car travel is for accessibility in rural areas.

Figure 3: Average minimum travel times to key services by mode of transport, England 2017



Source: [Department for Transport Journey Time Statistics, England: 2017](#)

- 6.7 Department for Transport data shows that 81% of children within the district can access primary schools within 15 minutes⁶. When considering this data across the district, this figure falls to 73% within Chailey and Wivelsfield and to 69% within

⁵ [Energy Trends July to September 2020](#), Department for Business, Energy & Industrial Strategy

⁶ East Sussex in Figures [Access to Primary Schools](#)



Ouse Valley and Ringmer. Data also shows that only 95.8% of households have access to a GP surgery within 15 minutes by car, and only 61% can access a GP by public transport within 15 minutes⁷. The concept of 10-20 Minutes Neighbourhoods is discussed in detail in the [Creating Healthy Sustainable Communities](#) Topic Paper.

- 6.8 Census data published by Office for National Statistics shows that in 2011 80% of households in the district owned at least one car⁸. The number of cars registered in the district has increased by over 3200 cars between 2009 and 2019⁹. Registrations of ultra-low emissions vehicles (ULEVs) are increasing in the district and by 2020 there were 477 cars registered compared with 89 in 2015. However, this still only represents 0.9% of vehicles registered in the district.
- 6.9 The take up of ULEVs will depend on the infrastructure. The Government has announced the end of sales of new petrol and diesel cars in the UK by 2030, and the move is underpinned by investment for more charge points across the infrastructure network, meaning that a driver is never more than 25 miles away from a rapid chargepoint anywhere along England's motorways and major A roads¹⁰. The new Local Plan could support the increased use of ULEV's by requiring infrastructure for electric vehicle charging in new development and at destinations.
- 6.10 Census data from 2011 shows that of the total population who live and work within the district, 38% are travelling to their place of employment by car. Of those that come into the district to work, 64% do so by car, and 76% of people who commute out of the district do so by car¹¹.
- 6.11 In the UK, construction is one of the largest consumers of materials and produces more waste than any other sector. In East Sussex, construction and demolition waste (C&DW) amounts to over half the total of all waste produced¹², of 1.75million tonnes of solid waste handled each year C&DW accounts for 51%¹³.
- 6.12 The Waste Management Plan for England 2011 sets out the Government's ambition to work towards a more sustainable and efficient approach to resource use and management. The National Planning Policy for Waste (2014) sets out detailed waste planning policies requiring that decisions ensure that the handling of waste arising from the construction and operation of development maximises reuse/recovery opportunities and minimises off-site disposal.

⁷ East Sussex in Figures [Access to GPs](#)

⁸ East Sussex in Figures [Car Ownership 2001-2011](#)

⁹ Department for Transport and Driver Vehicle Licensing Agency [All Vehicles \(VEH01\)](#)

¹⁰ Department for Transport, Office for Low Emissions Vehicles [18 November 2020](#)

¹¹ Census via East Sussex in figures [Commuting flows by method of travel to work in 2011](#)

¹² [East Sussex County Council, Construction and Demolition Waste SPD](#)

¹³ [East Sussex, South Downs and Brighton and Hove Waste and Minerals Local Plan](#)



- 6.13 The [East Sussex, South Downs and Brighton & Hove Waste and Minerals Local Plan \(WMP\)](#) seeks to reduce the environmental footprint, in particular greenhouse gas emissions, associated with the production and management of waste and minerals. It takes account of international and national policies relevant to waste and minerals and forms part of the statutory development plan for the area
- 6.14 Further evidence requirements to inform the new Local Plan include updating the Strategic Flood Risk Assessment (2009) a review of the Renewable Energy & Low Carbon Development Study (2010), and modelling the impacts of transport growth resulting from new development and sustainable transport improvements.

7. Issues and Options

- 7.1 The energy and climate change issues can be summarised into two broad themes, some issues may overlap themes, as follows:

Climate Change Mitigation (Prevention)

- Energy efficiency
- Renewable or low carbon energy generation
- Sustainable design and construction techniques
- Supporting modal shift – reducing reliance on the private car and encouraging more sustainable methods of transport.
- Supporting natural carbon capture –protecting natural capital

Climate Change Adaptation

- Avoiding development in areas most susceptible to flooding
- Flood and coastal change defences
- Consider the long term impacts of coastal change
- Reducing water consumption
- Consider design responses to protect water quality
- Supporting food production and distribution
- Encouraging green infrastructure, tree planting and new green spaces in developments whilst protecting existing valuable habitats
- Encouraging passive design for new development to avoid buildings becoming too cold in winter or summer overheating and thereby requiring more energy consumption from mechanical heating and/or cooling
- Promote adaptation principles in design policies



Energy Efficiency

- 7.2 As shown above, a significant proportion of the emissions generated in the district are coming from buildings (domestic and industry). Efficient and sustainable energy use can help to reduce locally contributing causes of climate change. Improving energy efficiency of buildings and minimising their energy demand is the first step towards zero carbon, thereafter sourcing the remaining energy primarily from renewable or low carbon energy sources further reduces emissions. Nationally a number of initiatives have been introduced to address energy efficiency including stepped tightening of standards required by building regulations.
- 7.3 Provisions in the [Planning and Energy Act 2008](#) allow development plan policies to impose reasonable requirements for a proportion of energy used in development to be energy from renewable sources and/or to be low carbon energy from sources in the locality of the development; and development to comply with energy efficiency standards that exceed the energy requirements of building regulations.
- 7.4 In 2015, as set out in the Climate Change PPG, the Government set out in a Written Ministerial Statement its expectation that local planning authorities should not set energy efficiency standards for new homes higher than the energy requirements of Level 4 of the Code for Sustainable Homes (equivalent to a 19% improvement on the Part L 2013 standard). Section 43 of the Deregulation Act would introduce an amendment to the Planning and Energy Act that restricts local authorities from setting energy standards above building regulations levels for new homes, but this amendment has not yet been commenced. This has led to confusion and uncertainty. Many authorities set their own energy standards but adhered to the 19% level in the Ministerial Statement, but some authorities have set higher targets. This was acknowledged by the Government in the 2019 consultation on the proposed changes to building regulations¹⁴.
- 7.5 In that consultation the Government stated they were exploring options, including whether to commence the amendment to the 2008 Energy Act which would restrict local authorities setting their own standards and whether to do this on the introduction of the Part L Building Regulations uplift. In the response to the consultation published in January 2021, it was confirmed that the new planning reforms will clarify the longer term role of local authorities in setting local energy efficiency standards, and the consultation stated:

*“To provide some certainty in the immediate term, we will not amend the Planning and Energy Act 2008, which means that local authorities will retain powers to set local energy efficiency standards for new homes”.*¹⁵

¹⁴ Ministry of Housing, Communities & Local Government – [The Future Homes Standard 2019 consultation](#)

¹⁵ Ministry of Housing, Communities & Local Government – [The Future Homes Standard Summary of Responses 2021 \(Page 4\)](#)



- 7.6 The confusion has in recent years lead to inconsistent standards across the country, which means homes are built to different standards in different parts of England, creating inefficiencies in supply chains, labour and potentially in outcomes.
- 7.7 In support of the Council setting its own standards above the building regulations, the Clean Growth Strategy is clear that moving to a low carbon economy cannot be done by central government alone¹⁶.
- “Local areas are best placed to drive emission reductions through their unique position of managing policy on land, buildings, water, waste and transport. They can embed low carbon measures in strategic plans across areas such as health and social care, transport and housing.”*
- 7.8 The Future Homes Standard (FHS) will change parts of the building regulations so that by 2025 new homes will be expected to produce 75-80% lower carbon emissions compared with current levels. From 2021 an interim standard for new homes states they must produce 31% lower carbon emissions compared with the current building regulations (this will be published in December 2021 and come into force from June 2022 with transitional arrangements for one year for housebuilders already building).
- 7.9 When the FHS comes into force this will go further than energy requirements of Level 4 of the Code for Sustainable Homes (equivalent to a 19% improvement on the Part L 2013 standard).
- 7.10 In terms of non-domestic buildings, local authorities are not restricted or limited in setting energy performance standards above the building regulations. Building on the FHS, there is a current consultation on changes to the building regulations for a Future Building Standard (FBS) for non-domestic buildings. The preferred option being a 27% reduction in carbon emissions on average compared to the existing standards for non-domestic buildings. There are also uplifts in standards for major refurbishments given that most of the non-domestic buildings that will exist in 2050 have already been built. The diversity of non-domestic buildings means that solutions to meet FBS will vary across the building mix.
- 7.11 The FBS is expected to deliver highly efficient non-domestic buildings which use low-carbon heat, ensuring they are better for the environment and fit for the future and will apply by 2025.
- 7.12 Changes to the building regulations will decrease CO₂ emissions from new development, therefore removing some emphasis in the role of the local plan. Planning reforms are expected to clarify the longer-term role of local authorities in determining local energy efficiency standards. The Council will need to demonstrate that any policy requirements introduced through the new Local Plan

¹⁶ Department for Business, Energy & Industrial Strategy – [Clean Grown Strategy \(Page 118\)](#)



will not threaten the deliverability or viability of development, in accordance with national policy set out in the NPPF.

Renewable and Low Carbon Energy Generation

- 7.14 The new Local Plan can help to continue and accelerate the decline in carbon emissions by ensuring that new developments use less energy and assess the opportunities for renewable energy generation. Renewable energy generation can be provided at different scales, from larger scale operations such as wind turbines and combined heat and power (CHP) that can generate energy for a district-wide area, to microgeneration scheme incorporated into buildings that can provide energy for an individual property.
- 7.15 The term 'microgeneration' is used to describe the array of small scale technologies that can be integrated as part of a development, including;
- **Solar PV** – solar panels that are usually placed on rooftops and convert sunlight to electricity. When generation doesn't match up with the developments need, battery storage allows surplus electricity to be stored for later use.
 - **Solar Water Heating** – solar panels that collect heat from the sun and use it to warm up domestic water, reducing the need to use conventional boilers or immersion heaters
 - **Air source heat pumps** – a pump is placed on the outside of a building that absorbs heat from the outside air that can be used to heat radiators, heating systems or water in the home.
 - **Ground source heat pumps** – the use of underground pipes to extract heat from the ground that can be used to heat radiators, heating systems or water in the home
- 7.16 Retrofitting microgeneration on an existing building often falls under permitted development and may not therefore require an application for planning permission. The new Local Plan could include a requirement that small-scale energy generation is incorporated into new development, although this can have implications for the design and viability of a scheme.
- 7.17 CHP is a highly efficient process that captures and utilises the heat that is a by-product of the electricity generation process. By generating heat and power simultaneously, CHP can reduce carbon emission by up to 30% compared to separate means of conventional generation¹⁷. CHP schemes can be fuelled by fossil fuels or renewables, e.g. biomass. In 2018, 69.4% of CHP schemes were

¹⁷ Department for Business, Energy & Industrial Strategy Guidance [Combined heat and power](#)



fuelled by natural gas compared with only 17.4% fuelled from renewables¹⁸. In order to achieve net zero emissions, the fuel used will need to move away from the reliance of fossil fuels.

- 7.18 Some larger sites could provide enough development to justify the incorporation of community energy generation such as CHP. However, the cost of implementing this could impact the viability and mean that the development is unable to provide other infrastructure requirements.
- 7.19 Core Policy 14 (*Renewable and Low Carbon Energy and Sustainable Use of Resources*) currently encourages renewable and low carbon energy in all developments but only requires the strategic site allocations to be accompanied by an Energy Strategy.
- 7.20 NPPF paragraph 151 supports plans identifying suitable areas for renewable and low carbon energy sources where this would help to secure their development. Identifying areas suitable for renewable energy in plans gives greater certainty as to where such development will be permitted. In the case of wind turbines, the planning practice guidance is clear that planning permission should not be approved unless the proposed development site is an area identified as suitable for wind energy development in a local or neighbourhood plan¹⁹. Suitable areas for wind energy development will need to be allocated clearly in a Local or Neighbourhood plan.

Sustainable Design and Construction Techniques

- 7.22 All development proposals should consider sustainable development principles from the outset. From its concept a building's detailed design, its location, its choice of materials and construction technique, orientation and use all impact on its energy efficiency. In order to meet the Council's ambition of net zero emissions, it is also important that we support sensitive energy improvements to existing buildings.
- 7.23 In terms of new developments, good design has a crucial role in reducing the energy use and mitigating climate change, the detailed design influences how much energy the occupiers use. Planning policies should support sustainable construction and design measures that would mitigate climate change impacts of new development.
- 7.24 As developments become increasingly energy efficient, using less energy to run, and rely more on onsite renewable sources of energy, the embodied carbon, the equivalent CO₂ or greenhouse gas emissions from the extraction, manufacture, transportation, maintenance, replacement, and disposal of materials and systems

¹⁸ Department for Business, Energy & Industrial Strategy [Digest of United Kingdom Energy Statistics 2019 Chapter 7](#)

¹⁹ PPG Renewable and Low Carbon Energy [Paragraph: 005 Reference ID: 5-005-20150618](#)



that make up the building become more and more significant in terms of the whole life carbon of a building. The opportunity to influence the embodied carbon of a development comes at design stage. Depending on the type of building, by the time of occupation somewhere between 30-70% of its lifetime carbon may already have been accounted for²⁰ (the higher end of the range is most likely in buildings such as warehouses and distribution centres, while the lower end would be achieved through building to 'Passivhaus' standards, which have low operational carbon requirements).

- 7.25 Extending the life of buildings and recovering and reusing materials at the end of their life can significantly reduce the demand for materials and subsequent waste produced. Adopting a circular economy approach to development will play a significant role in promoting resource efficiency and addressing the challenge of the climate emergency. Demolition often leads to large amounts of waste, it also has impacts on the amenity of residents and retaining a building can preserve the character of the surrounding area. Therefore, the re-purpose and refurbishment of existing buildings to new uses will be encouraged wherever possible.

Climate adaption measures

- 7.27 Adaptation measures such as green infrastructure can be win-win solutions that will support sustainable development. Core Policy 8 (*Green Infrastructure*) currently encourages and supports the provision of green roofs/walls in new development, and retrofitting of adaptation measures would also result in energy efficiency measures. Policy DM25 (*Design*) requires all new development to retain existing individual trees or tree groups, whilst Policy DM27 (*Landscape Design*) encourages new tree planting to assist with carbon capture and urban cooling.
- 7.28 The local plan must consider the role of natural habitats in the storage and sequestration of carbon and how nature based interventions can be used to reach net zero emissions. Nature offers the potential to store and sequester carbon at a comparatively low cost compared with engineered solutions. The maintenance of existing carbon storing habitats is as important as creating new storage stocks. Nature based interventions are measures which restore or enhance natural assets and as a result deliver multiple benefits, for example, carbon storage, flood alleviation, biodiversity and human wellbeing. This includes tree planting, maintaining and increasing soil carbon, improving wildlife/biodiversity and managing freshwaters and wetlands. Land use change impacts on the type, distribution and turnover of vegetation and affects the extent and condition of natural habitats and their ability to store carbon.
- 7.29 Trees provide shade, reducing air and ground temperatures, preventing overheating and improving air quality by absorbing pollutants. They can also improve natural flood management and biodiversity. A Woodland Trust Survey

²⁰ UK Green Building Council – [Tackling Embodied Carbon in Buildings 2015](#)



indicates Lewes has a woodland coverage of 24.9%²¹ (Note: this is parliamentary constituency rather than local authority), and 21% of the district's population have accessible woodland within 500m of their homes. The Lewes Carbon Emissions Analysis high ambitions pathway sets a target of increasing lone tree (trees in smaller wooded areas, within gardens and hedgerows) coverage to 47 lone trees per hectare, from currently roughly 35 per hectare and planting a minimum of 48 hectares of woodland per year, increasing forest coverage by 24% (Note: this is district wide).

- 7.30 Tree planting should not compromise other more significant beneficial alternative habitat restoration. Increased tree planting without careful planning can lead to the loss of other habitats.

Food production

- 7.32 Using the planning system to promote food growth, and the creation of a sustainable food network, is a concept growing in popularity and seeks to encourage developers to include space for growing food in new developments. The provision of good growing space will assist with ambitions of delivering sustainable development. Policy DM19 (*Protection of Agricultural Land*) supports this and states development that would result in the irreversible loss of the best and most versatile agricultural land will not be permitted unless it can be demonstrated that there are no suitable alternative locations and the proposal would have overriding sustainability benefits that outweigh the loss of land from agricultural use.
- 7.33 All development could be encouraged to give early consideration in design proposals and landscape schemes to the location of food growing spaces, the use of productive trees or other edible planting. Edible landscaping can be utilised with food producing plants replacing ornamental plants in landscaping schemes without excessive financial burden. The intention being that outdoor amenity space already required as part of a good development is food friendly.

Modal shift

- 7.35 The need to encourage people to move around the district in a sustainable manner and to ensure maximum accessibility to new development by walking, cycling and public transport is one of the key issues that the new Local Plan will need to address. At the same time, accessibility issues for the district's rural communities are recognised, in particular the needs of the elderly, the disabled and the young people in terms of accessing employment, education, health and entertainment facilities.
- 7.36 Modal shift means replacing one mode of transport (e.g. private car) with another more sustainable mode of transport. Modal shift will only be made when one mode

²¹ Woodland Trust – [Woodland Indicators by Parliamentary Constituency 2019](#)



has a comparative advantage over another, so a switch from cars to sustainable travel will require disincentives to using the car, coupled with improvements to the capacity, cost, flexibility, safety and reliability of more sustainable modes.

- 7.37 Core Policy 13 (*Sustainable Transport*) currently requires all development which generates a significant demand for travel to contribute to improved sustainable transport infrastructure and to provide facilities and measures to support sustainable transport modes. In addition to providing convenient and secure cycle parking at destinations as well as at home, provision of work place showers and changing rooms may encourage cycling to become a reasonable alternative as a means of transport.
- 7.38 East Sussex County Council, as the local transport authority, currently requires cycle parking at new residential development to the following standards:²²
- 1 & 2 bedroom flats - 0.5 spaces if communal, 1 space if individual
 - 3 or more bedroom flats - 1 space
 - Houses - 2 spaces
- 7.39 For non-residential developments, ESCC guidance²³ stipulates cycle parking space recommendations based on use class and floor space, for example;
- Class A1 retail – 1 short-term space per 150m² plus 1 long-term space per 10 f/t staff
 - Class B1 Business - 1 short-term space per 500m² plus 1 long-term space per 10 f/t staff.
- 7.40 People face barriers in trying to cycle or walk for everyday journeys, the local plan needs to take opportunities to support changes in travel behaviour. The LCWIP initiatives look to tackle some of the common and often interrelated barriers which people face around issues such as safety and perception of risk. Planning for the provision of walking and cycling will be important, ensuring that these are an achievable way to travel for all or part of journeys.
- 7.41 The pathway to net zero action plan sets out in the Council's Climate Change and Sustainability Strategy includes ensuring local planning policy sets out increased sustainable transport infrastructure, by policy requiring active EVCPs and cycle parking on all new major applications.
- 7.42 To support the provision of accessible electric vehicle charging points the current Lewes District Electric Vehicle Charging Point Technical Guidance Note (TAN) requires the following at new development:

²² ESCC [Guidance for parking at new residential development 2017](#)

²³ ESCC [Guidance for parking at non-residential development](#)



Provision of accessible EV charging points for ULEV in New Development	
Flats (developments of 11 or more)	Where flatted development has integrated parking bays (undercroft or parking court) at least one dedicated bay with Fast EV Charging Unit to service the development
Houses	Where houses are provided with a garage or driveway, one standard EV Charging Unit per dwelling
Garages	Where domestic garages are provided, new or replacement, one standard EV Charging Unit per garage
Commercial	Where commercial development is proposed with 100 car parking bays or more at least 2% of those bays are to be provided with a Fast EV Charging Unit

- 7.43 The requirements could be increased to require fast charging EV points on all allocated spaces at flatted developments, and to increase the requirements for commercial development to support the accessibility of charging at destinations.
- 7.44 The provision of regular and reliable public transport will play a key role in creating a shift from the reliance on the private car. The Council will work with public transport providers to encourage more people to use public transport. The need to reduce the reliance on the private car will need to be addressed carefully through the location and design of new development and encouragement of up take in ULEV's and more sustainable forms of transport. The new Local Plan must ensure that new development enhances travel choices and mitigates any adverse impacts that they may have on the district's transport network.

Water Consumption

- 7.46 The Environment Agency has identified the whole of the South-East to be an area of 'serious water stress' and it is therefore imperative that water resources are managed efficiently within the region. Current building regulations require a property's water usage not to exceed 125 litres per person per day.
- 7.47 Core Policy 14 (*Renewable and Low carbon Energy and Sustainable Use of Resources*) requires all new dwellings to achieve water consumption of no more than 110 litres per person per day. It also expects new non-residential developments over 1,000 square metres to achieve BREEAM 'Very Good Standard', which requires the use of water efficient components and water recycling systems to reduce consumption of potable water.
- 7.48 In 2019, DEFRA consulted on ways to reduce the personal water use and what reduction was technically feasible. Southern Water have a demand reduction programme to 'Target 100', reducing personal consumption to an average of 100 litres per person per day²⁴. The Councils' Climate Change and Sustainability Strategy sets a target of 100 litres per person per day in new builds by 2030

²⁴ Southern Water <https://www.southernwater.co.uk/water-for-life/target-100>



Air Quality

- 7.50 In 2014 an Air Quality Management Area (AQMA) was declared in Newhaven due to nitrogen dioxide emissions from transport. Declaration of an AQMA is necessary under Part 4 of the Environment Act 1995, when certain statutory air quality thresholds are breached.
- 7.51 An Air Quality Action Plan has been produced for Newhaven. Core Policy 9 (*Air Quality*) requires applications for development to provide mitigation measures where development and/or its associated traffic would impact on an existing AQMA. All applications for development are required to ensure they would not have a negative impact on the surrounding area in terms of its effect on health, the natural environment or general amenity.

Flooding and Coastal Management

- 7.53 The likelihood of flooding is predicted to increase as a result of climate change causing more extreme weather events such as prolonged period of intense rainfall. Fluvial flooding from the River Ouse and inundation from the sea are the primary flood risks in the district. However, there are also flood risks from surface water and ground water which can have significant impacts on homes and business with some areas more susceptible than others.
- 7.54 The Strategic Flood Risk Assessment 2009 (SFRA) found that 11.1% of land in the district lies within Flood Zone 2 (medium probability of flooding), of which 9.9% lies within Flood Zone 3 (high probability of flooding/functional floodplain); approximately 2000 homes are located in Flood Zone 3. An updated SFRA will be required to provide a detailed assessment of the extent and nature of flood risk in the area to inform the new Local Plan.
- 7.55 Whilst green infrastructure refers to a network of multifunctional green space, blue infrastructure refers to the water environment such as river systems and coastal environments within the green network. The updated data and mapping from the SFRA can be used to identify networks of blue infrastructure (rivers/streams) within catchments, consideration in the new local plan needs to be given to how this can benefit the district in terms of mitigating and adapting to climate change allowing focus on how natural flood management can be supported. There are also impacts on biodiversity from improving green and blue infrastructure corridors which would be addressed through the **Protecting and Enhancing the Quality of the Environment** Topic Paper.
- 7.56 Sustainable Drainage Systems (SuDS) can help mitigate the risk of surface water flooding. SuDS are designed to replicate natural drainage from a site as closely as possible and treat run off to remove pollutants, reducing the impacts on ground water and receiving water courses. Core Policy 12 (*Flood Risk, Coastal Erosion, Sustainable Drainage and Slope Stability*) requires appropriate management of



surface water through incorporating SuDS unless it can be demonstrated that SuDS are not technically appropriate.

- 7.57 Lewes District features 14.5km of shoreline. The coastline is an important environmental, economic and recreational resource. The impacts of climate change, including increased storminess and frequency of extreme events, combined with a continued trend of rising sea levels, are the major issue for the future of our coastal defences. Without continued investment in coastal protection measures, the coastline will be at increased risk of erosion and inundation from the sea. It is necessary to consider how we can plan to adapt to sea level rising, permanent inundation and loss of land to erosion.
- 7.58 Management of the coast between Selsey Bill and Beachy Head is guided by a Shoreline Management Plan (SMP). SMPs, produced by the Environment Agency and the relevant local authorities, are high level documents that provide a strategy for managing flood and erosion risk for the coastline. The SMP is a non-statutory policy document for coastal flood and erosion risk management planning and takes account of other existing planning initiatives and legislative requirements to inform wider strategic planning. The Beachy Head to Selsey Bill SMP First Review (SMP2) updated in 2006 contains high level policy for the district's coastline and aims to continue the protection of the coast around the populated areas.
- 7.59 In 2014, Lewes District and Brighton & Hove City Councils commissioned a study into sustainable management options for the coastline between Brighton Marina and Newhaven over the next 100 years. The Brighton Marina to Newhaven Coastal Management Implementation Plan was published in 2016 and reviews the findings of previous studies, including the Beachy Head to Selsey Bill SMP, in the light of current Government flood and coastal risk management guidance.
- 7.60 Core Policy 12 does not currently meet the requirements of the NPPF in terms of defining a 'Coastal Change Management Area' to cover the coastline where rates of shoreline change are significant over the next 100 years, taking into account climate change. Paragraph 167 of the NPPF states *plans should reduce risk from coastal change by avoiding inappropriate development in vulnerable areas and not exacerbate the impacts of physical changes to the coast. They should identify as a Coastal Change Management Area any area likely to be affected by physical changes to the coast.*
- 7.61 The new Local Plan presents an opportunity to address the land-use implications of coastal change in more detail. Identifying a Coastal Change Management Area could define the nature/type of development which would be appropriate in the short/medium/long term in at risk areas. It could also consider provision for the relocation of development from risk areas inland which could help retain the benefit of existing development, infrastructure and land uses.



GLOSSARY

Air Quality Action Plan (AQAP) – a framework for addressing a specific air-pollution problem.

Air Quality Management Area (AQMA) - areas that are designated by local authorities where, following an assessment of air quality, individual pollutants exceed standards defined in the National Air Quality Strategy.

Circular Economy - the circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible as such that the life cycle of products is extended.

Climate Change Act 2008 – an act which sets a legal framework for the UK to cut greenhouse gas emissions to 80% below 1990 levels by 2050, requiring the government to set binding, five yearly carbon budgets based on the latest science and in light of economic circumstances.

Combined heat and power (CHP) – an energy efficient technology that generates electricity and captures the heat that would otherwise be wasted to provide useful thermal energy, such as steam or hot water that can be used for space heating, cooling, domestic hot water and industrial processes.

Environmental footprint - the effect that a person, company, activity, etc. has on the environment, for example the amount of natural resources that they use and the amount of harmful gases that they produce.

Evidence base -The information and data gathered by local authorities to justify the "soundness" of the policy approach set out in the Local Plan, including physical, economic, and social characteristics of an area.

Fluvial flooding – sometimes also referred to as *river flooding*, occurs when the water level in a river or stream rises to the point at which it overflows the river bank onto the surrounding land.

Greenhouse gas – the name given to gasses, such as carbon dioxide and methane that contributes to the greenhouse effect which leads to an overall rise in global temperatures.

Green infrastructure – an approach to managing wet weather impacts on the built environment by reducing and treating storm water at its source whilst also delivering other environmental, social and economic benefits.

Groundwater flooding – occurs when the level of water within the rock or soil underground, also known as the *water table*, rises above ground level which tends to occur after longer periods of high rainfall.



Infrastructure – the basic requirements for the satisfactory development of an area, including water supply, sewage disposal, flood prevention, surface water drainage, highways, sustainable transport measures, play space, amenity space, education and learning facilities, libraries, health and social care facilities, leisure facilities, recycling facilities, etc.

Local Plan - the plan for the future development of the local area, drawn up by the Local Planning Authority in consultation with the community.

National Planning Policy Framework (NPPF) – sets out the government’s planning policies for England and the methods by which they are expected to be applied and adhered to.

Neighbourhood Plan - a plan prepared by a Parish Council or Neighbourhood Forum for a particular neighbourhood area (made under the Planning and Compulsory Purchase Act 2004).

Passivhaus – a building design principle which aims to maximise energy efficiency of buildings which in studies have shown a 75% reduction in space heating requirements compared to the standard practice for new builds within the UK.

Renewable energy – an energy source that is sustainable, or cannot run out, for example, solar, tidal and wind energy.

Shoreline Management Plan (SMP) -a large-scale assessment of the risks associated with coastal processes and helps reduce these risks to people and the developed, historic and natural environments. Coastal processes include tidal patterns, wave height, wave direction and the movement of beach and seabed materials.

Strategic Flood Risk Assessment (SFRA) - an assessment of the likelihood of flooding in a particular area so that development needs and mitigation measures can be carefully considered.