06 CLIMATE CHANGE

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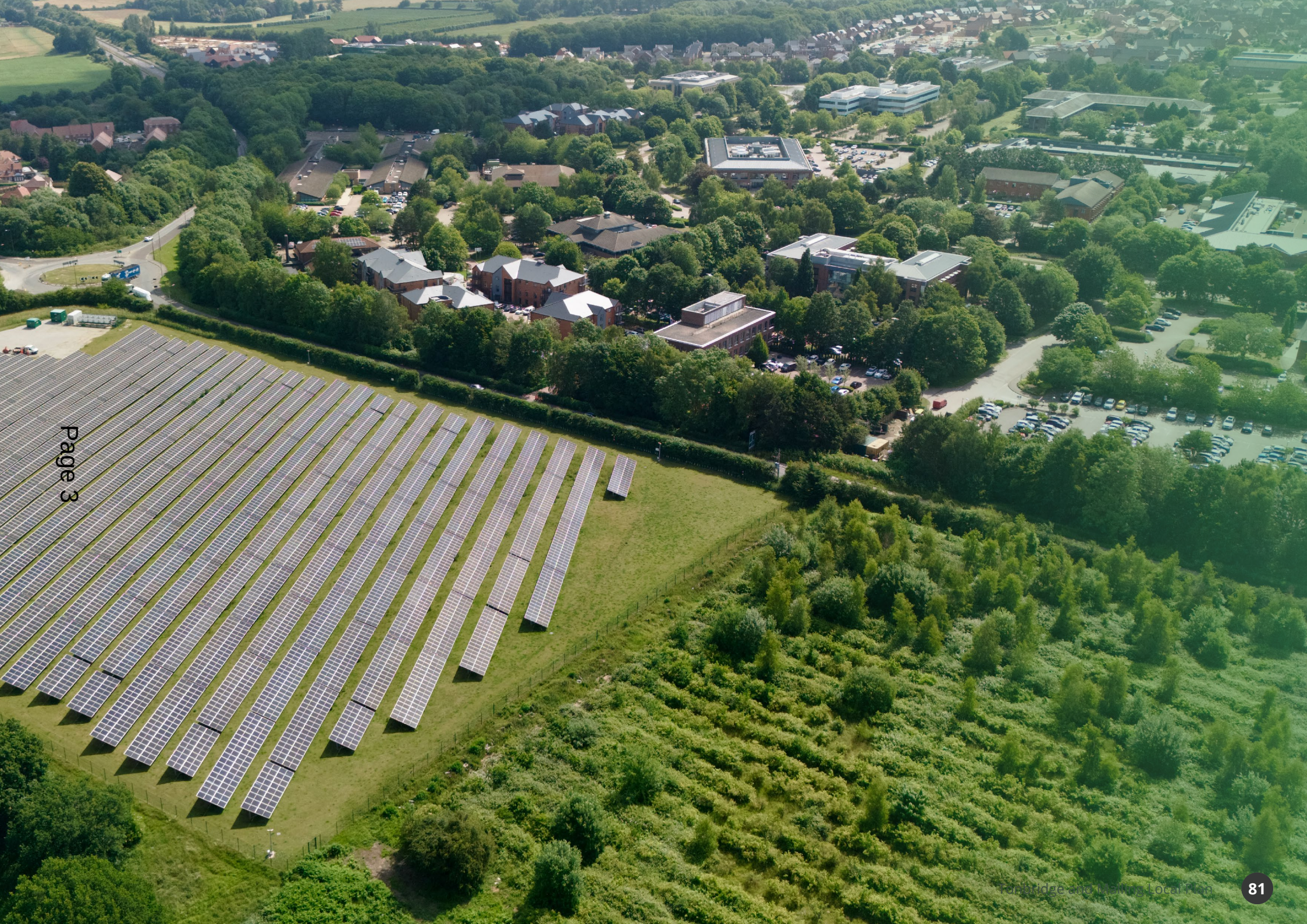
Introduction

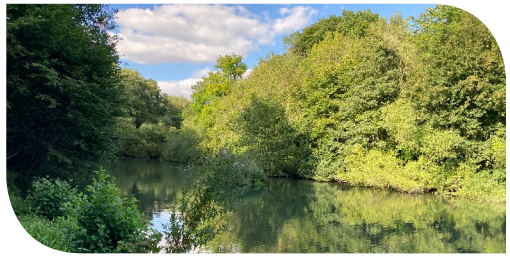
6.1 This chapter outlines the council's approach to tackling climate change.

6.2 It introduces a comprehensive suite of policies aimed at supporting the national transition to net zero, while also advancing the Council's own local climate objectives. Through development and land use policies, the Council seeks to ensure that new development plays a meaningful role in reducing long-term carbon emissions. These policies are designed to promote energy efficiency, lower greenhouse gas emissions, and help communities both mitigate and adapt to the current and future impacts of climate change.

6.3 The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body responsible for evidence on climate change. The IPCC produces regular scientific assessment reports that present the physical evidence base on the impacts and risks of climate change, and options for mitigation and adaptation. The IPCC defines climate change as,

'a long-term shift in the climate that persists for decades or longer. These shifts can be caused by natural variability or human activity'.





6.4 Anthropogenic activities, predominantly through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850–1900 temperatures in 2011–2020. Worldwide greenhouse gas emissions have continued to increase, which has led to widespread adverse impacts and related losses and damages to the environment and people with vulnerable communities who have historically contributed the least to current climate change being disproportionately affected (IPCC Synthesis Report 2023).

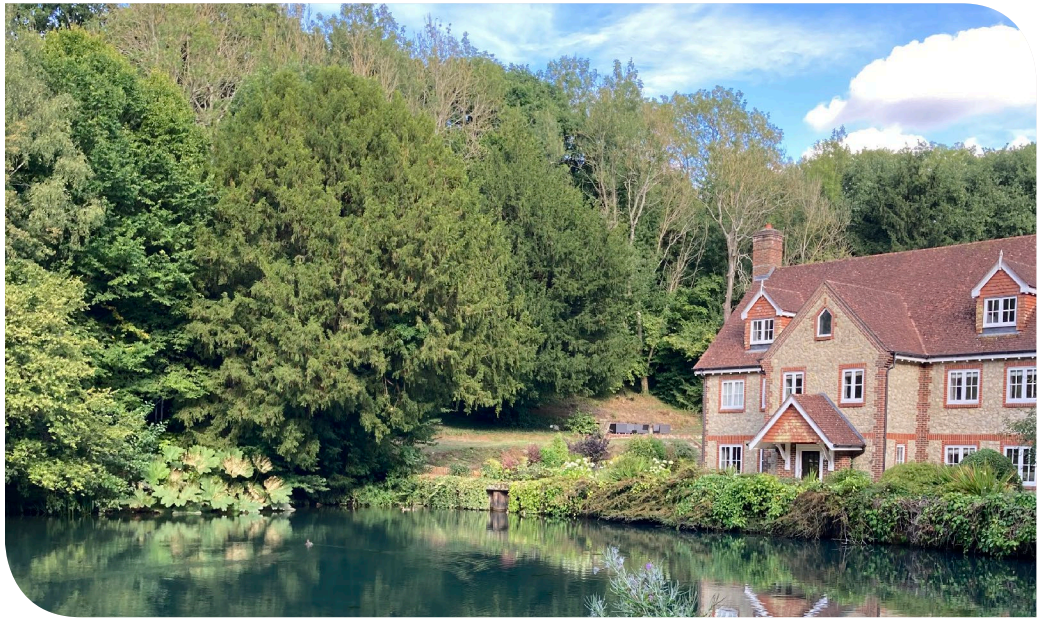
6.5 Climate change is therefore now recognised as being one of the greatest challenges facing global society with the likelihood of abrupt and/or irreversible changes increasing as global warming levels rise. Locally within the borough and county of Kent, the risks are very clear. The Climate Change Risk and Impact Assessment for Kent and Medway (CCRIA) advises that by 2040 Kent will be experiencing hotter and drier summers with an increase in average summer temperature of 2 – 3°C and a reduction in average rainfall of 20 – 30%, and warmer and wetter winters with an increase in average winter temperature of 1 – 2°C and an increase in average rainfall of 10 – 20%. The intensity and frequency of extreme weather is expected to continue to increase.

6.6 Legislation within the UK is therefore clear that strong action must be taken to address this Increasing problem. In 2008, the UK passed the world-leading Climate Change Act as the first national framework legislation that set out requirements for the government to establish a long-term emissions reduction goal. Following further international research, in June 2019 the Government laid the draft Climate Change Act 2008 (2050 Target Amendment) Order 2019 to amend the Climate Change Act 2008 by introducing a target for at least a 100% reduction of greenhouse gas emissions (compared to 1990 levels) in the UK by 2050. This is otherwise known as a net zero target. The Order came into force on 27 June 2019.

6.7 The Climate Change Act 2008 (as amended) therefore sets a legally binding target for the UK to reduce greenhouse gas emissions to net-zero by 2050. In part response to this, the Council declared a climate change and biodiversity emergency in July 2019, the declaration committing itself to playing as full a role as possible in the aspiration for a carbon neutral borough by 2030. The council adopted its Climate Change Strategy (2020 -2030) to help deliver these goals.

6.8 The Local Plan supports the delivery of the objectives of the council's Climate Change Strategy, but it's important to acknowledge that the planning system is one of many delivery mechanisms for addressing climate change. The council will therefore have to engage and work together with other authorities and stakeholders particularly as part of the duty to co-operate system to comprehensively address this issue and achieve local and national objectives.

6.9 It is important to highlight that these policies should be read together with other policies in the Local Plan, as the issue of climate change is a golden thread running throughout the policies and is core to the economic, social and environmental overarching objectives of sustainable development which are interdependent and must be pursued in mutually supportive ways (NPPF 2024).



Addressing Climate Change

Introduction

6.10 Planning for climate change is an international, national and local priority which is required at the strategic level and must be at the heart of spatial planning priorities. Taken at the strategic level, addressing climate change involves seeking to limit the impact of development on the climate including locating, designing and constructing developments in ways that reduce carbon dioxide emissions and reduce the use of our natural environment and its resources. It also incorporates measures to reverse decline in key environmental areas and make improvements such as biodiversity net gain (BNG).

6.11 The purpose of Policy CC1 is to ensure that the development and use of land in the borough considers climate change at the heart of development proposals and will contribute to the mitigation of, and adaptation to, climate change during the design, construction and occupation of all new development.

Policy CC1: Addressing Climate Change

1 Development proposals, as relevant to their nature and scale, will need to demonstrate that a proactive and best practice approach has been taken to mitigate climate change, contribute towards reducing greenhouse gas emissions and the transition to net zero, and also maximise the use of measures to adapt to climate change. Innovative and creative solutions to mitigating and adapting to climate change as well as contributing to climate change resilience are encouraged. Overall, developments must contribute to net zero through a holistic approach to design, construction, energy efficiency and on-site renewable generation to achieve as close to a net zero energy balance as possible for the type of development.

2 For climate change mitigation, such measures may include the following:

a Maximising the re-use of previously developed land and land in sustainable locations where there is supporting infrastructure in place and good access or connections to services and facilities and sustainable transport modes;

b Reducing reliance on private vehicles and emissions associated with transport, whilst promoting sustainable forms of travel including cycling and walking;

c The re-use or retrofitting of appropriate existing buildings and improvements to building standards and the surrounding environment:

i to reduce whole lifecycle carbon emissions compared to that which would result from demolition;

ii and to generally maximise opportunities in addressing climate change;

d Delivering low carbon development maximising opportunities such as renewable energy, low carbon energy generation and storage, active travel and green infrastructure;

e Ensuring development supports a circular economy including re-use of building materials, minimising embodied carbon and minimising construction waste;

f Reducing the amount of energy used in the construction and use of buildings; and improving energy efficiency in accordance with the energy hierarchy set out in policy CC4;

g Designing development that is sustainable including considerations around landscaping, density, layout that encourages sustainable transport, building types, shapes, building materials and orientation, in order to minimise energy consumption and maximise solar energy generation; and

h Maximising opportunities to promote and deliver carbon sequestration / storage including tree planting as appropriate.

3 For climate change adaptation and resilience, this may include:

a Taking account of flood risk and reducing the impact of flooding from all sources through location and design;

b Supporting natural flood management and retaining space for flood management where necessary;

c Incorporating sustainable drainage systems (SuDS);

d Incorporate green infrastructure, delivering multi-functional benefits including that which supports biodiversity and wildlife resilience;

e Reducing water use and increasing rain and grey water harvesting;

f Designing development to reduce the potential for overheating through passive cooling, heating and ventilation measures; and

g Avoiding or minimising light, water, air and noise pollution; and improving or maintaining air and water quality.

4 Climate change mitigation and adaptation measures are key to delivering sustainable development and must therefore be considered at the beginning of the design process. Major development proposals will be required to be accompanied at the planning application stage with an energy and climate change statement which demonstrates how the above principles have been considered and implemented in the development, where applicable. The level of information provided should be proportionate to the scale and the nature of the development proposed. For minor development matters the design and access statement must demonstrate how climate change principles have been met.

Reasoned Justification

6.12 The Planning and Compulsory Purchase Act 2004 sets out the legislative framework for development planning in England. Section 19(1A) of the act requires:

"*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*".

6.13 Councils are therefore bound by the legal duty set out in Section 19, as amended by the 2008 Planning Act, to ensure that policies in local plans contribute to the mitigation of, and adaptation to, climate change. Tonbridge and Malling Borough Council therefore has a legal duty to address climate change as part of the Local Plan.

6.14 As well as legislative duties, the NPPF paragraph 20d (December 2024) requires plans to have strategic policies to set out an overall strategy for planning measures to address climate change mitigation and adaptation and further on in chapter 14, paragraph 161 requires that the planning system should support the transition to net zero by 2050 and take full account of all climate impacts.

6.15 The council is committed to tackling the causes and impacts of climate change and strategic policy CC1 seeks to deliver the Council's overarching strategy for addressing climate change and the transition to net zero by 2050. This policy is supported by a suite of development management policies which establish a comprehensive approach to mitigating and adapting to climate change.

Policy Implementation

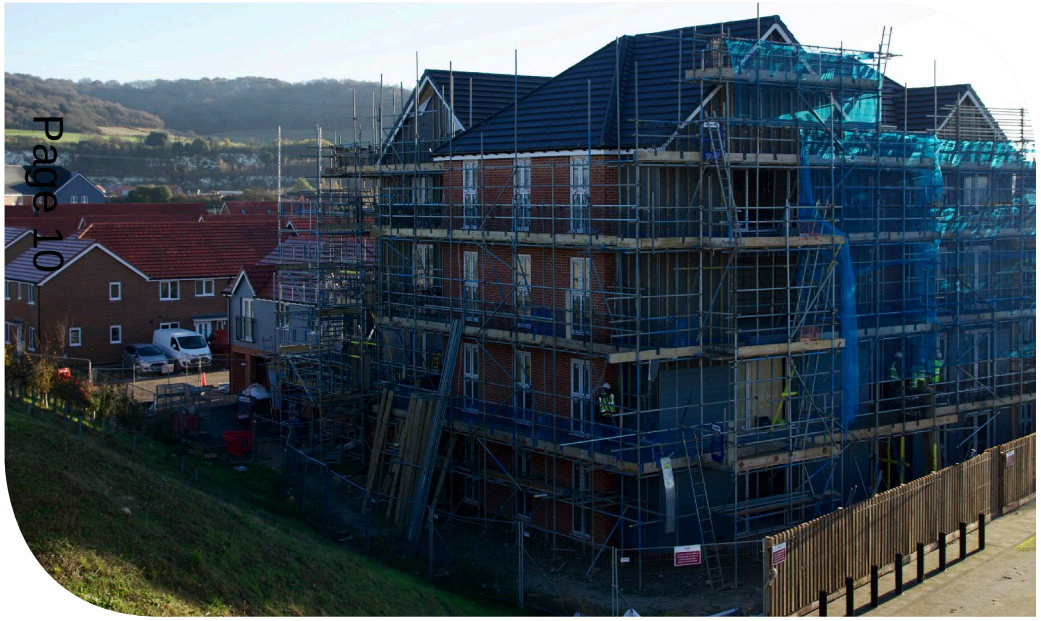
6.16 All new development will be required to consider climate change mitigation and adaptation. Proposals that involve new built development are expected to meet the criteria in this policy and any corresponding Development Management policies that would be relevant to the character and scale of the development.

6.17 Applicants should consider the needs to address climate change at the very early stages of design and feasibility. Applicants should prioritise brownfield sites and existing building stock in sustainable locations over new developments on greenfield sites and consider a holistic approach which takes account of the core delivery mechanisms, these being design, construction, energy efficiency and low carbon and renewable energy. Considering the end user and influencing how communities will integrate and live and work is also important such as the need to conserve water, reduce the need to travel and enjoy good amenities.

6.18 It will also be imperative for development proposals to maximise natural processes and green infrastructure that can remove carbon from the atmosphere referred to as carbon sequestration. To achieve this, green infrastructure and nature recovery should be a core aspect of the development scheme, where available, with methods to reduce the impact of climate change favouring nature-based solutions over those requiring hard engineering. Such measures will also help to mitigate overheating, reduce flood risk, as well as address the biodiversity emergency.

6.19 A detailed assessment will be expected to accompany all applications in order to ensure that climate change is fully addressed which shall be proportionate and reasonable to the scale and nature of the development. This policy requires that all new major development applications are accompanied by an Energy and Climate Change statement which shall include the information necessary to assess how the development seeks to tackle climate change and meets the strategic climate change policy as well as other policy requirements within this Local Plan. For minor developments the Design and Access Statement should demonstrate that the principles of climate change and any necessary mitigation and adaption measures are clearly identified and incorporated into the development.

Circular Economy



Introduction

6.20 The construction industry generates significant amounts of waste and carbon emissions and is a heavy user of natural resources. Owing to the finite nature of these resources and the need to preserve such precious natural commodities, the promotion of the circular economy through the Local Plan can play a significant role in reducing embodied carbon, managing resources and reducing waste.

6.21 The circular economy seeks to transition away from the conventional linear model (take-make-dispose) to a model that increases recycling and repair and promotes waste as a resource. It seeks for buildings to be innovatively designed for longevity, to be built in layers to allow for easy adaption and flexibility for future new uses as well as disassembly. Such a framework offers a sustainable means of reducing embodied carbon and working towards a low carbon future and a goal of net zero waste to landfill.

Policy CC2: Circular Economy

1 Relevant Development proposals including all major development where there are existing buildings and / or structures present should incorporate circular economy principles, prioritising the retention and refurbishment of existing building stock and reducing waste, using sustainable materials and maximising opportunities to achieve a goal of net zero waste to landfill.

2 For all major developments, a circular economy statement shall be submitted and / or included as part of the energy and climate change statement required under policy CC1 demonstrating that all possible measures have been taken to retain and reuse existing buildings and construction materials, including how the development meets the following circular economy principles:

a Building in layers;

b Designing out waste;

c Building for longevity;

d Building for adaptability or flexibility;

e Designing for disassembly; and

f Using systems, elements or materials that can be reused and recycled.

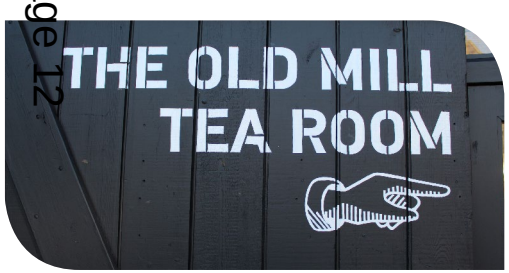
3 Developments shall be designed to:

a Minimise the production of waste arising from construction, demolition and excavation and manage any such waste in accordance with the waste hierarchy and best practice waste management procedures;

b Promote the recycling of materials and use of sustainably sourced materials; and

c Demonstrate a preference towards retaining, refurbishing and reusing existing structures and buildings incorporating the retrofitting of low carbon and renewable energy and heat technology to existing buildings where feasible and viable.

4 Change of use and conversion of historic buildings shall be carried out in accordance with the Historic England Note 18: Adapting Historic Buildings for Energy and Carbon Efficiency or any subsequent updates to this note.



Reasoned Justification

6.22 Government Statistics show that approximately 60% of all waste generated in the UK is derived from construction related activities, with approximately 50,000 buildings a year being demolished across the country (RIBA 2022). The NPPF encourages the reuse of existing resources, including the conversion of existing buildings and promotes and supports the development of under-utilised land and buildings.

6.23 A key objective of the Local Plan is the use of brownfield land first. The promotion of the circular economy will directly feed into this, seeking to reuse land and recycle existing materials and have a preference to retain and refurbish existing buildings where possible and viable where the embedded carbon would be recycled.

6.24 The Circular Economy principles also seek for a high standard of innovative design and construction, so buildings are more resilient to the impacts of climate change by being adaptable for mitigation and future technological changes. By adopting the circular economy principles buildings can be viewed as both forever structures suitable for future adaptation and as temporary repositories for materials that can be reused.

Policy Implementation

6.25 The circular economy principles apply to all developments regardless of the scale and nature of the proposal. Therefore, when designing development proposals, the six circular economy principles should be central to the design and development strategy and overall management of the construction site.

6.26 To comply with this policy, developments should seek to minimise the production of waste, especially where significant amounts of excavation and demolition are required and where possible reuse and/or recycle this waste material/ spoil on site or locally. If this cannot be achieved, any eventual waste shall be managed in accordance with the waste hierarchy and best practice in accordance with the Kent County Council Minerals and Waste Local Plan.

6.27 If there are existing buildings or structures on site, if it is viable and feasible, preference should be given to retaining these on site and incorporating them into the development, such as for residential or commercial uses, ancillary uses or landscape features/structures and garden buildings.

6.28 The policy should be applied in a propionate manner. Major developments are likely to be able to have a greater positive impact upon the environment by reducing embodied carbon. Therefore, as part of the policy application, all major developments will be required to submit a circular economy statement as part of the Energy and Climate statement required under Policy CC1, to demonstrate compliance with the six principles.

6.29 For such a statement this should include a review of the circular economy principles and where these can be applied to the development, identifying where materials and methods can be specified to aid circularity, making recommendations. It should outline how the development's materials, services, construction methods, and future management by owners and/ or occupiers will fulfil circular economy principles. It should advise on details of waste, methods of disposal, materials and quantities as well as details regarding materials to be reused on site and recycled, including retaining buildings/ structures and their proposed use. Construction methods should show ease of construction and deconstruction, to ensure services are easily accessible for maintenance or upgrades. Lastly, it should include an end-of-life strategy for the proposed development and opportunity to return the materials to another use.

Sustainable Design & Construction

Introduction

6.30 Sustainable construction means taking a 'life cycle' approach to development. A core principle in addressing climate change is setting a high standard of sustainable design and construction that goes beyond the basic design parameters of a development and encompasses a whole life cycle approach from the very first design considerations to the construction methods, materials and end of life strategy. Embracing sustainable design and construction principles ensures the impact upon the climate from a development throughout its life is therefore reduced to a minimum.

6.31 Sustainable design and construction can positively contribute to delivering sustainable development and addressing climate change. The council therefore seeks to encourage high standards of sustainable design and construction that will raise the overall environmental performance of new developments whilst minimising their contribution to climate change.

Policy CC3: Sustainable Design and Construction

1 Development proposals will be supported where they demonstrate compliance with the principles of sustainable design and construction as set out below, to help mitigate and adapt to the effects of climate change;

a A Whole Life Cycle Carbon Assessment (WLCA) must be submitted for all new major development. The WLCA must follow recognised methodologies and include embodied carbon, operational carbon, end of life carbon and module D. WLCA must be submitted at the planning application stage and applications may be refused without an adequate WLCA or where insufficient design or mitigation is proposed.

b Prioritisation of brownfield land and reuse of existing buildings, structures and materials where available and feasible, minimising waste and maximising reuse of recycled materials during construction and designing for the reuse of materials at end-of-life strategy in accordance with Circular Economy policy CC2;

c Make efficient use of land and natural energy sources and conserve on site natural resources including vegetation, soil, water and materials;

d Use construction materials that have high environmental performance ratings including high thermal performance materials for walls, floors, roofs and glazing, to minimise the impacts upon the environment and reduce energy demands;

e Constructed using low embodied carbon and energy efficient materials that should, where possible, be locally sourced. Use of traditional construction techniques and local labour and skills where available. The use of building materials with high embodied carbon, such as concrete, should be kept to a minimum, as appropriate to the character and scale of the development. The Energy and Climate Change Statement should state clearly how the choice of materials has balanced durability with reducing embodied carbon, where appropriate;

f Maximise the use of renewable and low carbon energy and heating systems in accordance with the energy hierarchy set out in policy CC3, utilising opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy sources;

g Maximise the reduction in the use of water supplies and increase water recycling.

2 Development should be designed to regulate the internal air quality and temperature of buildings and mitigate against potential overheating. Overheating mitigation measures should be incorporated into the design of the scheme and considered at an early stage.

3 All new development shall be designed to follow the cooling hierarchy:

a Reduce the amount of heat entering a building through building form and fabric, orientation and shading, and the provision of green infrastructure;

b Minimise internal heat generation through energy efficient design;

c Manage the heat within the building through exposed internal thermal mass;

d Provide passive ventilation;

e Provide mechanical ventilation; and

f Provide active cooling systems only if this is demonstrated to be essential.

4 In accordance with policy CC1 above, major developments will be required to demonstrate within their Energy and Climate change statement how their development actively addresses these principles of sustainable design and construction. Minor developments will be required to address relevant matters in the Design and Access Statement.

Reasoned Justification

6.41 The built environment is responsible for carbon emissions at the construction stage but also throughout its lifetime. Therefore, to reach Net Zero across the borough, and indeed the rest of the UK, it will be necessary to implement policies that address a broader range of emissions that occur over the building's lifecycle, at all stages of the supply chain.

6.42 Therefore, embracing sustainable design and construction principles will make a significant contribution to tackling climate change as well as providing other local benefits such as supporting the local workforce and suppliers, local economies whilst embracing local distinctiveness.

6.43 The NPPF advises that the planning system should encourage the reuse of existing resources and help to reduce greenhouse gas emissions, such as through its location, orientation and design. Sustainable design and construction principles looks at design across the entire development process to ensure the impact upon the climate at all stages is minimised.

Policy Implementation

6.32 The policy applies to all developments, proportionate to the scale and character of the development. The policy advocates an approach where climate change is considered from the start and developments are innovatively designed to tackle issues in the most practicable form for the site. Both embodied and operational carbon should be considered which should then inform and guide the most effective and viable technologies and solutions. The policy requires a whole lifecycle assessment to be carried out for major developments.

6.33 A significant proportion of a building's carbon footprint and environmental impact is generated before occupation begins. For this reason, it is important that the assessment of a development includes the operational stage of a building's life when it is in use, as well as including construction activities such as the clearance of a site, any demolition requirements and transportation of materials. Software tools available for such assessments can be OneClick LCA and eTool.

6.34 Developments must, where possible, prioritise the use of previously developed land over greenfield land and sites in sustainable locations over those in remote rural areas. Similarly, priority should be given to the retention and reuse of existing buildings and materials where possible. Developments should make efficient use of land and take advantage of natural resources on site such as sites with good solar opportunity whilst conserving and managing natural elements such as soils, vegetation and water.

6.35 The use of materials with low embodied carbon is encouraged and those with high environmental performing qualities is a key component to sustainable design such as materials with high thermal properties. Materials with high embodied carbon such as concrete or steel should be kept to a minimum.

6.36 Consideration must be given to the sourcing of materials and waste disposal of materials. During the construction phase, the re-use of materials on-site such as hardcore, soil or rubble is advocated, and use of locally sourced materials is expected wherever possible in order to prevent landfill waste and reduce vehicular trip generation. The employment of local workforce and skills is also important to reduce travel. Specific consideration of the effect on soils and ecosystem services may also be required in accordance with other policies in this plan and development will be expected to follow the Defra Construction Code of Practice for the Sustainable Use of Soils on Constructions Sites.

6.37 The policy also recognises the need to embrace maximum use of renewable and low carbon energy and heating systems in accordance with Policy CC3. Applicants should refer to this policy for further guidance.

6.38 Addressing water scarcity is part of the sustainable design and construction principles whereby the development must promote a reduction in water use. Overheating is recognised as a key risk in the built environment in the future as a result of climate change and the impact of increasing temperatures and frequency of heat waves. Relative to other parts of the UK this is an issue that is likely to present a higher risk to the borough of Tonbridge and Malling given both its location and demographic.

6.39 This policy therefore requires early stages of design to consider the risks of overheating and be designed to follow the cooling hierarchy. Measures to address overheating in the design of new buildings are likely to be more effective and will be much cheaper to implement than retrofitting these in the future. Similar to energy use, it is recommended that a fabric first approach is taken with nature-based solutions such as shading from landscaping and green infrastructure.

6.40 A key part of complying with this policy for major developments is setting out and demonstrating the approach to sustainable design and construction in the Energy and Climate Change statement in accordance with Policy CC1. Where necessary and required, including for all major development proposals, this should include the whole lifestyle assessment.

Energy & Heating

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Introduction

6.44 One of the biggest sources of carbon emissions comes from energy and heat associated to our homes and businesses. Heating and powering buildings accounts for 30% of the UK's total energy usage, and within the borough of Tonbridge and Malling, carbon emissions from the domestic and commercial sectors produce 28% of the borough's carbon emissions and these are dominated by building heating and energy use.

6.45 Policy CC4 seeks to reduce these emissions and requires development proposals to clearly demonstrate that energy efficiency has been a focus for building design and its end use.

Policy CC4: Energy & Heating

1 All development proposals should follow the below energy hierarchy in developing an energy strategy and should demonstrate this within the energy and climate change statement:

   a Reduce energy demands;

   b Use energy efficiently;

   c Generate and store renewable energy; and

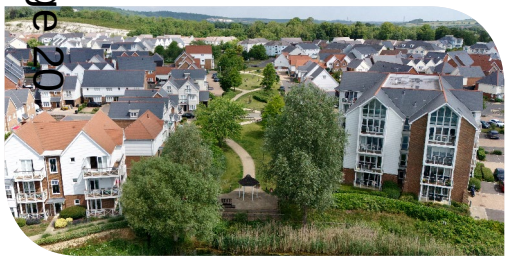
   d Monitor energy use.

2 Measures should be incorporated at the earliest design stage of development and maintained throughout design, construction and operation of the proposal so that opportunities to maximise compatibility with current and future use of local and onsite zero and low carbon energy technologies are identified and incorporated into the design of the development.

3 Developments will be required to adopt a fabric first approach. All new major development should be built to achieve the following levels of sustainable construction unless it can be clearly demonstrated that targets cannot be met. Developments must, as a minimum, be designed and constructed to be carbon ready by design;

   a New residential dwellings to be built to a minimum 3-star standard or above of the Home Quality Mark.

   b New non-residential/commercial buildings to meet the BREEAM Very Good rating or higher.



Reasoned Justification

6.46 The purpose of this policy is to ensure that new developments are as energy efficient as possible through reducing energy demand and subsequent operational emissions. Buildings remain a significant contributor to the borough's carbon emissions and therefore any measures to reduce emissions in the long term will be a positive result. The NPPF is clear that the planning system should support the transition to net zero by 2050 and should help to shape places in ways that contribute to radical reductions in greenhouse gasses.

6.47 The council has declared a climate change emergency and is committed to working towards a carbon neutral borough over the lifetime of this Plan. The Council is ambitious in seeking to meet its climate change objective and be a net-zero carbon borough as soon as possible.

6.48 The council therefore wishes to set ambitious targets beyond current building standards to ensure carbon emissions are reduced and climate change objectives are achieved. This approach is in line with the Planning and Energy Act 2008 which allows local authorities to set local energy efficiency standards that go beyond the minimum standards provided by the Building Regulations.

6.49 The council acknowledges the proposed introduction of the Future Homes Standards in 2025 which is likely to set higher standards than current levels. At that time, the council will consider its policy approach further to inform its Regulation 19 Draft Submission Local Plan taking into account any additional climate change evidence and guidance from central Government.

Policy Implementation

6.50 This policy intends to reduce carbon emissions associated with new buildings and to improve the energy-efficiency of new buildings built during the lifetime of the Plan. The Policy will be applied to all development proposals for new residential buildings and new non-residential buildings.

6.51 Development proposals will need to demonstrate that the development endorses the energy hierarchy and maximises on site zero and low carbon energy technologies at the earliest design stage of development and maintained throughout design, construction and the operation of the development. Examples of this may be ground/ air source heat pumps, renewable solar and wind technology. The policy provides some flexibility in achieving this however applicants will need to ensure that developments are as energy efficient as possible being carbon ready by design following the energy hierarchy.

6.52 Being as energy efficient as possible starts with a fabric first approach, pursuing passive design measures to minimise space heating requirements, optimise solar and daylight access and minimise risk of overheating and artificial cooling demands.

6.53 To achieve carbon reductions and improved energy performance, major residential development (involving 10 or more dwellings, or a site area of 0.5 hectares or more) will be required to achieve a minimum 3-star standard or above of the Home Quality Mark. For major non- residential development (where the floor space will be 1000 sqm or more or the site area is 1 hectare or more) will be required to achieve the commercial BREEAM Very Good rating or higher.

6.54 Demonstration that the development will be able to achieve the standards should be submitted with the planning application as part of the Energy and Climate Change statement required under Policy CC1. If this is unachievable, then the reasons should be clearly set out which shall be considered individually on its own merits but may warrant withholding the grant of planning permission if this is not clearly justified.

6.55 As a minimum the development must be 'carbon ready by design', which means the building is designed to be highly energy-efficient and ready to transition to a zero-carbon future by utilizing low-carbon energy sources and minimizing the need for future modifications when the electricity grid fully decarbonises. Examples of being carbon ready by design, could be (but are not limited to) ensuring a building's heating network will be able to accommodate lower flow temperatures associated with air/ground source heat pumps as well as being highly insulated and orientated to benefit from natural radiation and cooling.

Renewable and Low Carbon Energy and Heat Projects

Introduction

6.56 Owing to technological advancements in renewable energy and low carbon technology, energy generated from such sources is now a viable and realistic option to power homes and businesses and feed into the national grid to help decarbonise it and provide a greener, sustainable energy source for our communities.

6.57 There are many different options for utilising renewable energy and low carbon energy sources which can include photovoltaics (solar panels and solar farms), wind turbines and wind farms, biomass fuel and community heat networks which are all possible within our borough.

6.58 As well as the installation of renewable and low carbon energy technology to individual homes and businesses, there is also a growing demand for the submission of specific energy infrastructure projects such as solar or wind farms or the creation of district heat networks which can reduce greenhouse gas emissions, can make efficient use of land allowing for multiple uses, ensure energy security, stimulate investment and potentially provide an income for local communities.

6.59 Policy CC5 below seeks to support the renewable and low-carbon energy schemes available to the borough and maximise the use of the available resources whilst safeguarding the environment and amenities of the borough.

Policy CC5: Renewable and Low Carbon and Heat Projects

1 Development proposals for renewable and low carbon energy generation and distribution networks, including heat network schemes and community led energy schemes will be supported where:

a The physical and visual impacts do not result in an adverse impact on the local environment that cannot satisfactorily be mitigated. This includes impacts upon landscape character, National Landscapes and their setting, residential amenity, biodiversity including habitats and species, geodiversity, flood risk and the historic environment. Impact considerations should also consider noise, shadow flicker, vibration and visual impacts such as glint or glare;

b The impacts and any required mitigation are acceptable in relation to highway safety, rail safety, aviation and defence navigation and communication systems;

c Proposals utilise commercial and previously developed land/buildings (where available) and avoid the loss of significant areas of the best and most versatile agricultural land. Where applications relate to agricultural land, that the site can continue to be used for agricultural activity (including the grazing of animals) that is proportionate to the scale of the proposal; and

d That a mechanism is provided to restore the site to its original use or an acceptable alternative use once the proposed use ceases including the removal of technology.

2 When located in the Green Belt, some aspects of renewable energy projects may comprise inappropriate development. Inappropriate development is by definition harmful to the Green Belt. In such cases, developers will need to demonstrate very special circumstances.

3 Development proposals are required to maximise the use of the available resources by deploying installations with the greatest energy output whilst ensuring that the development is acceptable in planning terms. This includes maximising solar photovoltaic energy as well as considering the potential for thermal and energy storage and smart energy / demand management systems, except to the extent that developers demonstrate these requirements are not viable.

4 Where feasible, solar thermal energy will also be supported within new development.

5 Major development proposals should demonstrate compliance with this policy within their Energy and Climate Change Statement. Proposals should also demonstrate that effective engagement with stakeholders and communities has taken place to ensure that appropriate mitigation can be provided as required to make the development acceptable in planning terms.

Reasoned Justification

6.60 National Planning Policy and Practice guidance requires planning policies to maximise and promote renewable and low carbon energy on the path to delivering a net zero future by 2050. To achieve net zero, the Government is seeking to decarbonise the national grid and cut carbon emissions of electricity generation through low carbon and renewable energy technology.

6.61 In planning for the increased use and supply of renewable and low carbon energy and heat, paragraph 165 of the NPPF advises that plans should provide a positive strategy for energy from these sources that maximise the potential for suitable development and their future re-powering and life extension while ensuring that adverse impacts are addressed appropriately.

6.62 National Policy Statement for Renewable Energy Infrastructure EN-3 also highlights that there is an urgent need for new electricity generating capacity to meet the nation's energy objectives and that electricity generation from renewable sources is an essential element of the transition to net zero.

Policy Implementation

6.63 This policy seeks to provide the Local Plan's positive strategy for renewable and low carbon energy. It seeks to support large- and small-scale renewable and low carbon and heat projects, including community projects but also require renewable and low carbon energy technology for all new development.

6.64 Policy CC5 applies to all renewable and low carbon energy development proposals under 50MW of generated output energy. Development proposals over 50MW, except for battery storage, are required to be dealt with via the Nationally Significant Infrastructure projects (NSIPs). It is recognised however, that the Government intends to raise these thresholds in Spring 2025.

6.65 This policy applies to all renewable and low carbon projects including wind turbines and heat network proposals, with the most likely and common proposal being solar. Some large-scale proposals may come forward and be deemed to be nationally significant infrastructure projects (NSIP's) where the council will be a consultee rather than the decision taker and this policy can be used to guide the council's response in such instances.

6.66 Planning practice guidance makes clear that renewable energy does not automatically override environmental protection. Development proposals will therefore need to balance competing planning material considerations. When development proposals are located in the Green Belt, and considered to be inappropriate development, developers will need to demonstrate very special circumstances.

6.67 Development proposals will need to have regard to the visual impacts and the individual and cumulative impacts of other large-scale development upon an area. Particular attention will need to be given to the impact upon the borough's landscapes and the National Landscapes of the Kent Downs and High Weald and their settings. In these landscapes and their settings, major developments should be avoided where only small-scale and sensitive projects may reasonably be considered acceptable. The Kent Downs AONB Renewable Energy Position Statement advises that large scale wind turbine and solar farm developments will be unacceptable in the National Landscape and its setting.

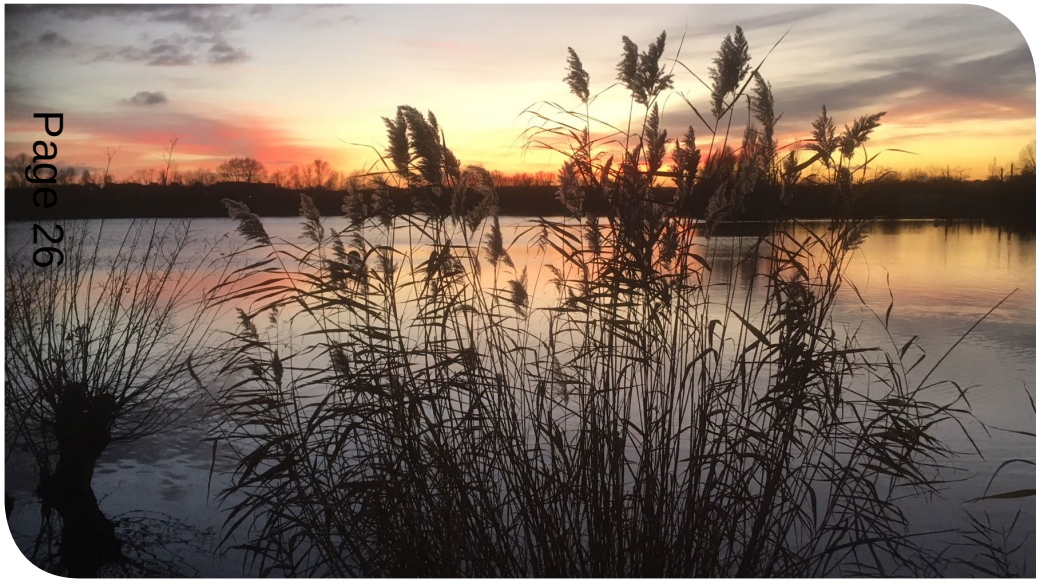
6.68 Developments should ensure that there are no adverse effects upon residential amenities from issues such as noise, glare, vibration and odour as well as harmful impacts upon biodiversity, geodiversity and the historic environment. Developments must also not lead to an increase in flood risk. Development proposals will be expected to safeguard highway safety, aviation and defence systems in the area (if applicable) and avoid the loss of significant areas of the best and most versatile agricultural land of the borough for food production.

6.69 When the renewable energy use is no longer needed or comes to the end of its operational life, all development proposals must be capable of restoring the land to its former use or an alternative use through a formal change of use application when the use ceases. Alternative uses should be compatible with the character and appearance of the surrounding area and protect amenities.

6.70 The policy also requires for all new development (residential and commercial) to maximise the use of renewable and low carbon energy sources by deploying installations with the greatest energy output whilst ensuring that the development is acceptable in planning terms. This should, where feasible, include maximising solar photovoltaic energy as well as considering the potential for thermal and energy storage and smart energy / demand management systems. The council will also support and encourage solar thermal energy sources.

6.71 To ensure the criteria of this policy are met, major development proposals should demonstrate compliance with this policy within their Energy and Climate Change Statement under Policy CC1. For major, large-scale projects that are likely to affect whole communities or significant numbers of residents/ businesses, constructive and meaningful engagement with the affected communities and stakeholders will be expected to understand and address concerns raised, including impacts from construction, end use and operational maintenance needs.

Water Efficiency



Introduction

6.72 One of the biggest consequences of climate change, is the gradual decline in quantity and quality of fresh water, commonly referred to as water scarcity.

6.73 Water is recognised as being a finite resource. The availability of water is important for a number of reasons including as a source of drinking water, for industry and manufacturing, farming as well as within the natural world and the habitats and species that live in it.

6.74 The water sector in the UK is facing significant challenges due to the impacts of climate change. The country is experiencing more frequent and intensive extreme weather events such as floods, droughts and wildfires, which are placing increased pressure on water resources and infrastructure.

6.75 As such, there is a strong recognition of the need to save water and a clear legislative direction towards water efficiency. Policy CC6 to the right seeks to support national and local targets for water use efficiency.

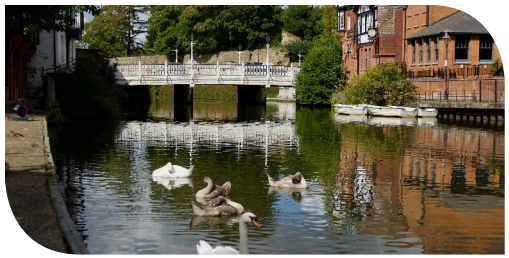
Policy CC6: Water Efficiency

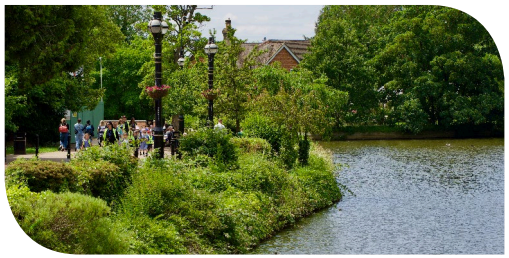
1 All new residential and commercial developments (including building refurbishment and retrofitting) will be required to demonstrate, through the Energy and Climate Change Statement or Design and Access Statement (as relevant) that the development is designed to minimise its impact on and make efficient use of water resources. For each development, a water efficiency calculator (or equivalent to) should be completed to accompany the application to demonstrate that the water efficiency targets set out below are being met or surpassed where possible.

a All new residential development must be designed and built to achieve a maximum water use of 110 litres per person per day or the highest water efficiency standard that applies at the time of the planning application.

b All proposals for non-residential development should maximise water efficiencies under the mandatory water credits category in the BREEAM Water Consumption assessment methodology.

2 Development proposals should demonstrate that water reuse and recycling and rainwater harvesting measures have been incorporated wherever possible to reduce demand on mains water supply as part of an integrated approach to water management.





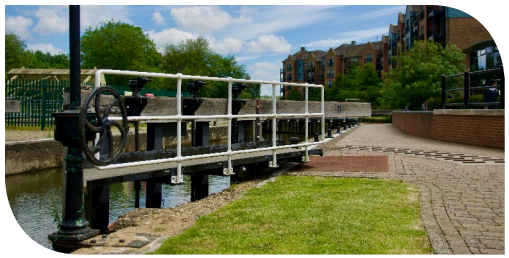
Reasoned Justification

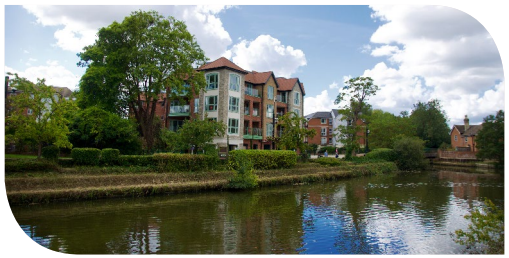
6.76 Climate change is affecting water quality and availability, as rising temperatures and changing precipitation patterns alter the water cycle. Summer rainfall is expected to decrease and the water supply in the UK is forecast to decrease by 7% by 2045 as a result of our changing climate and limits to sustainable abstraction (Water UK 2025).

6.77 Tonbridge and Malling is located within the south east which was classified by the Environment Agency back in 2013 as an area of serious water stress. In 2021, the Environment Agency updated their assessment and the area continued to remain within a serious water stressed area. The water stress method takes a long-term view of the availability and the demand for public water supply. It accounts for future population growth, climate change, environmental needs and increased resilience.

6.78 National policy in the NPPF (para 161) clearly acknowledges the issue of declining water supplies and advises that the planning system should take full account of all climate change impacts including water scarcity. Furthermore, the Environment Act 2021 sets a target to reduce the use of public water supply in England per head of population by 20% by 2037-38 from the 2019-20 baseline.

6.79 To deliver improved water efficiency in new development over the lifetime of the Plan is therefore crucial to addressing water scarcity arising from shifts in climate patterns. An effective way of saving water is through the reduction of personal consumption. In England, the average person uses around 150 litres of water a day for a range of uses including sanitation. Significant savings are possible by placing a greater focus on the use of water efficiency devices and rainwater and grey water recycling in new homes and businesses.





Reasoned Justification

6.80 This policy applies to all new residential and commercial development across the lifetime of the plan period.

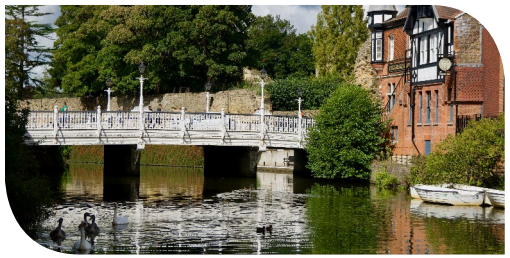
6.81 New residential development will be expected to be built to achieve a maximum water consumption of 110 litres per person per day through the installation of water efficiency sanitary appliances. Water efficiency in non-residential development will be required to maximise water efficiencies under the BREEAM standard – water consumption assessment methodology.

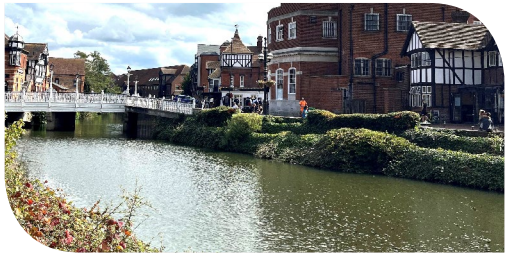
6.82 New development will also be expected to reduce non potable water demand through either rainwater or grey water recycling for uses such as toilet flushing and outdoor irrigation which could be innovatively integrated into the SuDS for each building in some circumstances.

6.83 Applications will be expected to be accompanied with a water calculator (or equivalent) to demonstrate that the water consumption target of 110 litres is being met and exceeded where possible. This is a methodology tool that helps to identify whole building water use per person per day and should be used in accordance with the Government's national calculation methodology for assessing water efficiency.

6.84 These requirements will be secured by planning condition and delivered and monitored as part of the Building Regulations process.

Managing Development Within Flood Risk Areas





Introduction

6.85 Tonbridge and Malling Borough is highly susceptible to flooding due to its location within the River Medway catchment. The catchment has an area of approximately 930 square miles across west Kent, Sussex and the Surrey borders with an extensive network of major and minor river tributaries.

6.86 The rivers Medway, Bourne and Hawden Stream together with their tributaries flow through the borough creating a continued risk from fluvial and tidal influence. Some parts of these rivers flow through built up and highly populated areas such as Tonbridge and Aylesford placing homes, businesses and infrastructure at risk.

6.87 In the recent past, the borough has suffered from some significant flooding such as the December 2013 floods which affected 80 homes in the Barden Road and Danvers area of Tonbridge. The Leigh flood storage area (FSA) was built to reduce the risk of future flooding to approximately 1,200 homes and businesses.

6.88 Planning policy now requires that strategic policies should manage flood risk from all sources as well as the current and future impacts of climate change and be informed by a Strategic Flood Risk Assessment. New development should be sustainable and in flood risk considerations this means that development should be directed to areas at the lowest risk of flooding, should not make flooding worse and should reduce existing overall flood risk where possible.

6.89 To inform the Local Plan and its spatial strategy, the council has undertaken a Level 1 Strategic Flood Risk Assessment which advises that the borough is at risk from fluvial, tidal, ground water, surface water and reservoir flooding. Further work to understand flood risk will be progressed to help inform the Regulation 19 Pre-Submission Local Plan as required.

Policy CC7: Managing Development Within Flood Risk Areas

1 New development proposed in an area identified as being at current or future risk of any source of flooding (as shown on the Tonbridge and Malling Level Borough Council Strategic Flood Risk Assessment) will be expected to demonstrate it fully accords with the following criteria:

a Where required meets the sequential test and where required, the exceptions test (as set out in the NPPF) taking into account all sources of flood risk and the current and future impacts of climate change. Within the site, a sequential approach shall be applied with the most vulnerable development being located in areas of lowest flood risk.

b Development proposals are accompanied by a site-specific Flood Risk Assessment (as set out within the NPPF) which takes account of all sources of flooding and the current and future impacts of climate change as well as any residual risk. The FRA shall demonstrate that the development can be made safe for its lifetime, without increasing flood risk elsewhere.

c Any advice from the Environment Agency and other relevant flood risk management authority, such as lead local flood authorities and internal drainage boards, has been taken into account and implemented.

d Flood resilient measures and residual risk management measures shall be incorporated into the development in accordance with any recommendations of the Flood Risk Assessment or flood risk management authority, so it is appropriately flood resistant and resilient with the use of natural flood management techniques where suitable and feasible.

e Measures are incorporated to ensure that development proposals do not have any adverse effects on the capacity or water quality of any watercourse or floodplain.

2 Applications for flood management and infrastructure projects will be supported where the proposal presents no conflict with other policies within this Plan.

Reasoned Justification

6.90 The borough has experienced a number of flood events attributed to a range of sources. Owing to climate change and sea level rise, together with rising housing pressures flooding is likely to pose an even greater threat affecting local communities and the environment. It is therefore important that new development is appropriate to the location and is safe and resilient for its lifetime taking into account climate change whilst not increasing flood risk elsewhere.

6.91 National Policy and associated Planning Practice Guidance is very clear on how flood risk should be managed through the Planning system. It seeks to do this by avoiding inappropriate development in areas at risk of flooding by applying a sequential risk-based approach to the location of development in plan making, taking into account all sources of flooding currently and in the future. This is known as the sequential test. The approach to and application of the sequential and exception tests to individual planning applications is set out in detail in Planning Practice Guidance.

6.92 Owing to the very localised threat to the borough, a specific flood risk policy is proposed that would sit alongside national policy and support the application of the sequential and exceptions test and requirement for flood risk assessment (FRA).

6.93 In recent years the council has been a stakeholder in the delivery of a number of local flood management infrastructure projects such as the Leigh flood storage area and Hildenborough embankment project in 2021 and the current Medway Estuary and Swale Flood and Coastal Erosion Risk Management Strategy (MEASS), which are critical to protecting our communities from future flood events. Owing to climate change and the socio-economic pressure facing the borough the flood risks are continually increasing and therefore further infrastructure management projects may be required in the future. This policy therefore seeks to strongly support such schemes in principle subject to all other material planning considerations being acceptable.

Policy Implementation

6.94 This policy applies to all developments that are identified to be at risk from any source of current or future flood risk. Applicants are directed to use the Strategic Flood Risk Assessment (available on the council's website) to identify flood risk.

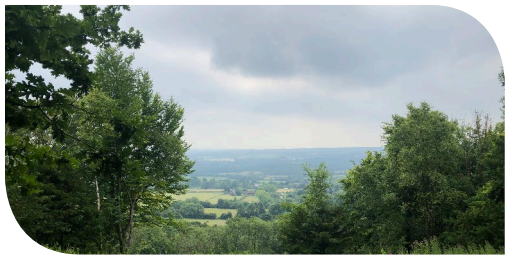
6.95 All development will be required to demonstrate that it has taken into account existing and future flood risks from all flooding sources, including the latest climate change allowances, and that the need for effective protection and flood risk management measures, where appropriate have been considered. For development proposals in a high cumulative impact catchment area as defined within the Cumulative Impact Assessment of the Tonbridge and Malling Borough Council Level 1 Strategic Flood Risk Assessment the schemes should also consider the cumulative effects of the proposed development and should demonstrate that flood risk downstream will not be made worse as a result of cumulative development.

6.96 Proposals must use the sequential test to inform the location of development, including the sequential approach within the site and taking account of the flood risk vulnerability classifications set out in the national planning guidance to direct new development to areas with the lowest probability of flooding. If, following the application of the sequential test, it is not possible, consistent with wider sustainability objectives, for development to be located in areas with a lower probability of flooding, the exception test can be applied. The sequential and exceptions test shall be applied to all developments at risk of any form of flooding except householder development, small non-residential extensions (with a footprint of less than 250m²) and changes of use; except for changes of use to a caravan, camping or chalet site, or to a mobile home or park home site, where the sequential and exceptions test should be applied.

6.97 A site-specific flood risk assessment (FRA) should be provided for all development in flood zones 2 and 3 and in flood zone 1 an FRA should accompany all proposals involving sites of 1 hectare or more or land identified in a strategic flood risk assessment as being at increased flood risk in future or land that may be subject to other sources of flooding where its development would introduce a more vulnerable use. Householder applications within an area at risk of any source of flooding should use the TMBC householder Flood Risk Assessment template available for download on the TMBC website. Where the risk only arises from surface water flooding then an FRA which demonstrates clearly that mitigation measures would ensure that occupiers and users would remain safe from current and future surface water flood risk for the lifetime of the development, Planning Practice Guidance states that the sequential test need not be applied.

6.98 Flood resilient measures will be expected to be incorporated into the development when this is clearly advised within the flood risk assessment. These should reduce the amount of water entering buildings or limit the damage caused if water does enter a building. Such measures should minimise damage and allow faster cleaning, drying, repairing and re-occupancy of the building in the event of a flood. Examples of effective measures could include (but not limited to), increased slab levels, flood walls/gates, raised electrical sockets with electrical cables dropping from the ceiling and the use of waterproof plaster. Further advice can be provided by the Ciria Code of practice for property flood reliance (C790 A-C).

Sustainable Drainage Systems



Introduction

6.99 Owing to climate change shifts, the UK is expected to experience wetter, milder winters and more extreme weather events such as heavy periods of intense rainfall.

6.100 In urban environments where the existing natural management of surface water is altered due to buildings and hard standing surfaces, the risk of surface water flooding increases as rainwater runoff overwhelms existing water management networks and floods out onto impermeable surfaces. Surface water flooding is a significant issue for the borough and in recent years has caused damaged to homes and businesses for several communities from such related flood events.

6.101 Within the borough, the primary source of surface water flooding is attributed to heavy rainfall overloading highway carriages, hard standings, drains and gullies. This is also exacerbated by the borough's susceptibility to ground water flooding where it is sometimes difficult to distinguish between the two different types of flood water source, particularly in the north of the borough owing to the bedrock geology of these areas.

6.102 Policy CC8 therefore seeks SuDS for all new development that will affect drainage on or around the site that can accommodate a 1:100-year design flood event plus the relevant allowance for climate change. SuDS can include measures such as detention and retention features, infiltration systems and green infrastructure such as green roofs, rain gardens and swales.

Policy CC8: Sustainable Drainage Systems (SuDS)

1 All development proposals which could affect drainage on or around the site will be required to manage surface water resulting from the development using sustainable drainage systems (SuDS) in accordance with the following details.

a All sustainable drainage system shall be designed to operate without any flooding occurring during any rainfall event up to (and including) the critical 1 in 30 year storm (3.33% Annual Exceedance Probability (AEP).

b The system must also be able to accommodate the rainfall generated by events of varying durations and intensities up to (and including) the critical, climate change adjusted 1 in 100 year storm (1% AEP). The drainage system shall not increase flood risk off site and have the following design principles;

i Designed in a manner which is sensitively located and safeguards visual and residential amenity.

ii Designed to provide multifunctional benefits for people, green infrastructure, water habitats and biodiversity.

iii Follows natural drainage flow paths and operates with existing site topography.

iv Is accompanied with a scheme for the long-term maintenance and funding of the SuDS for the lifetime of the development. Planning conditions and/or obligations shall be used to secure these arrangements.

2 Run-off shall be in accordance with the following hierarchy:

a Infiltration

b To a surface water body

c To a surface water sewer

d To a combined sewer

3 Surface water connections to the public sewerage network should only be made with prior agreement of the relevant sewerage undertaker and where it can be demonstrated that there are no feasible alternatives and the connection will not detriment existing users.

4 For proposed development sites that meet with any of the following conditions the SuDS shall only discharge at a rate equivalent to or below Qbar[1] for all designed rainfall events. A staged discharge will not be acceptable:

a Are situated in a high cumulative impact catchment area as defined within the Cumulative Impact Assessment of the Tonbridge and Malling Borough Council Level 1 Strategic Flood Risk Assessment.

b Where the surface water currently discharges to a sewer (either surface water, combined, highway or foul).

c Where the surface water currently discharges to a watercourse that is culverted either at the point of discharge or downstream of the discharge point.

5 Has taken account of and implemented advice from the Lead Local Flood Authority.

6 All other development will be expected to incorporate SuDs for a surface water design flood event where possible and feasible.

1 Qbar is the peak rate of flow from a catchment during a mean annual flood.

Reasoned Justification

6.103 Sustainable drainage systems are regarded as the most effective and sustainable means of managing water run off. They can also provide multifunctional benefits for biodiversity and green and blue infrastructure. National policy in the NPPF (paragraph 182) clearly advises that any development which could affect drainage on or around the site should incorporate Sustainable drainage systems which is a principle that the council seeks to endorse and promote through the Local Plan.

6.104 The Borough of Tonbridge and Malling is expected to see an increase of up to 10% increase in heavy rainfall by the end of the plan period (2042) and a 20% increase in rainfall during winter months by year 2100 (UK Climate Projections 18 (UKCP18) data), which will lead to greater volumes of runoff. Our drainage systems and waterbodies cannot keep getting bigger, so this increase must be managed at the source.

6.105 Therefore, new development has a role to play in contributing to this sustainable surface water management. At present, planning policy only requires that new developments do not exacerbate existing issues and that they maintain pre-development runoff rates, however, there is a role for new developments to help mitigate the impacts of climate change and to reduce sewer discharges to the environment and improve water quality of these discharges.

6.106 Sustainable drainage systems can mitigate these impacts by attenuating and slowing flows, enabling greater natural infiltration and compensating for climate change impacts as well as providing additional amenity and biodiversity opportunities. In line with national policy, the council will therefore expect such systems to be integrated into new development proposals to reflect the local flood risk issues that place the borough communities at risk.

Policy Implementation

6.107 This policy applies to all development proposals that could affect drainage on or around the development site. Ideally this should be informed by a drainage strategy, however advice can be sought from the county's Lead Local Flood Authority – Kent County Council.

6.108 The SuDS should be designed to control surface water runoff close to where it falls and mimic natural drainage as closely as possible. For major developments, SuDS will be expected to be considered at the early stages of design and feasibility as an integral part of the master planning.

6.109 SuDS should be designed in accordance with the Kent County Council (KCC) Standards who are the Lead Local Flood Authority and should have regard to the details within the two surface water management plans covering the borough, KCC Surface Water Management Plan for Tonbridge and Malling Borough and Maidstone and Malling Surface Water Management Plan.

6.110 The policy requires that the SuDS are designed to operate up to the critical 1:30 storm event (3.3% AEP) but also be able to accommodate the rainfall generated by events of varying durations and intensities up to (and including) the critical, climate change adjusted 1 in 100 year storm (1% AEP). The policy requires that where new development discharges surface water to a sewer (including a surface water, combined or foul sewer), or to a watercourse that is culverted, either where the development discharges or downstream, or in an area where the SFRA has identified a high risk of cumulative impacts, that the runoff rate is limited to the annual average runoff rate (Qbar -which is the peak rate of flow from a catchment during a mean annual flood), for all return periods. This should be informed by the Council's Level 1, Strategic Flood Risk Assessment report[2].

6.111 Surface water run off should be managed in accordance with the run-off hierarchy as set out in CC8 (2), with discharged via ground infiltration being the most sustainable preferred option and is unaffected by this policy. Discharge to a combined sewer should be the very last choice, when all other options have been considered and proven to be not available or technically feasible, and must be robustly justified. Surface water discharges to large watercourses, such as the River Medway, and to the sea are unaffected by this policy and are the preferred approach after infiltration.

2 SFRA Document.