

# Environment, Biodiversity & Climate Change 1

Waverley Borough Council | Core Strategy Topic Paper

### ENVIRONMENT BIODIVERSITY AND CLIMATE CHANGE

#### ENVIRONMENT

##### Relevant Core Strategy Objectives

To ensure that the design, form and location of new developments contribute to the creation of communities that are attractive, safe and inclusive.

To contribute to the delivery of sustainable communities, by directing new development towards the most sustainable locations, where there is the best available access to jobs, schools, health services, leisure and recreation and community facilities, particularly by public transport, cycling and on foot.

To safeguard the rich historic heritage and the diverse and attractive landscapes and townscapes in Waverley, and ensure that new development takes proper account of the character and distinctiveness of the area in which it is located.

**1.1** The environmental issues covered in this paper relate to landscapes, townscapes and the historic heritage. The historic heritage topic does not have questions to be considered because national regional and local policies impose strong protection on heritage and the option of not protecting it does not exist.

##### Issue

**How to protect the landscape from adverse change?**

##### Why is it an issue?

**1.2** Protecting the landscape is an issue because much of Waverley is countryside which is highly valued by the people of the Borough, and it is often under pressure for development. The Draft Core Strategy Spatial Portrait states that the distinctive natural environment is generally of a very high quality and about 80% of the countryside is designated as an Area of Outstanding Natural Beauty. Waverley's landscape has a distinctive wooded character and at 31% coverage is the highest in the country.

### Planning Policy Context

**1.3** The national policy for the countryside is contained in the Government document Planning Policy Statement 7. The policies in this statement apply to the rural areas, including country towns and villages, and the wider, largely undeveloped countryside up to the fringes of larger urban areas. The key principle for the countryside is expressed in PPS7 as follows:

**1.4** "New building development in the open countryside away from existing settlements, or outside areas allocated for development in development plans, should be strictly controlled: the Government's overall aim is to protect the countryside for the sake of its intrinsic character and beauty, the diversity of its landscapes, heritage and wildlife, the wealth of its natural resources and so it may be enjoyed by all."

**1.5** The South East Plan includes a policy C3 on the AONB and a policy C4 on Landscape and Countryside Management.

**1.6** Policy C3 includes the statement:

**1.7** "In particular, planning authorities and other agencies in their plans and programmes should recognise, and aim to protect and enhance, the diversity and local distinctiveness of the region's landscape, informed by character assessment."

**1.8** The "saved policies" in the Waverley Borough Local Plan 2002 include a number of policies relating to landscape.

- C3 Surrey Hills Area of Outstanding Natural Beauty (AONB) and Area of Great Landscape Value (AGLV).

**1.9** This policy aims to protect and conserve the distinctiveness of the landscape character areas within the Borough. The AGLV notation is what is referred to as a "local designation", meaning that it has not been defined nationally by government but in this case was defined by Surrey County Council. PPS7 states that when reviewing development plans and drawing up Local Development Frameworks "planning authorities should rigorously consider the justification for retaining existing local landscape designations. They should ensure that such designations are based on a formal and robust assessment of the qualities of the landscape concerned." (Paragraph 25). The AGLV has recently been the subject of a detailed landscape assessment undertaken by the 5 local authorities in the Surrey AGLV and it is proposed that, at some future date large parts of it should be included in the AONB, when that is reviewed by Natural England. Tandridge District Council has a policy in its Core Strategy to retain the AGLV until such time as the AONB is reviewed. The issue here is what happens to the other parts of the AGLV that are not absorbed into the AONB

- C4 Farnham /Aldershot Strategic Gap

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**1.10** The gap was first defined in the 1993 Waverley Borough Local Plan. The purpose of the designation was prevent the coalescence of Aldershot and Farnham, that is to stop the joining together of the two towns, by protecting the space between them around Badshot Lea. The Gap is a local designation because it was defined by the Borough Council. PPS 7 requires that such a designation should be justified rigorously. (The draft South East Plan does not support the designation of Strategic Gaps. If this becomes policy in the final approved South East Plan so it may be that the Council will not be able to include one in the Core Strategy.)

- C5 Area of Strategic Visual Importance

**1.11** There are fringe areas around the towns that need to be protected because they are in gaps or areas of open land that penetrate into the the urban area like a green lung. These areas have also been locally designated by the Borough Council and have to be rigorously justified if they are to be retained.

### **1.12** Main Sources of Evidence

- Surrey AGLV Review. Chris Burnett Associates June 2007
- Surrey Hills AONB Management Plan 2004-2009. 2004

1.13 Options relating to the AGLV:

**Option A**

Retain the AGLV until the boundary of the AONB is reviewed

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Gives some protection to landscape outside AONB</li> </ul>	<ul style="list-style-type: none"> <li>• Unless this approach can be justified there is a risk that it may not accord with Government guidance.</li> </ul>

**Option B**

Allow those parts of the AGLV that are currently not within in the AONB to disappear and replace them with policies based on character assessment

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Focus on the AONB</li> <li>• More likely to accord with Government policy.</li> </ul>	<ul style="list-style-type: none"> <li>• May result in less protection for the areas not incorporated into the AONB</li> <li>• lose specific policy backing for the AGLV</li> </ul>

**Question 1**

Out of Options A or B, what approach should the Council take in relation to the AGLV?

### 1.14 Options relating to the Farnham/Aldershot Strategic Gap and the Areas of Strategic Visual Importance:

#### Option A

Retain the Farnham/Aldershot Strategic Gap and the Area of Strategic Visual Importance

Advantages	Disadvantages
<ul style="list-style-type: none"><li>• Gives protection from coalescence of urban areas</li></ul>	<ul style="list-style-type: none"><li>• May be considered contrary to South East Plan and PPS7 unless there is robust evidence to justify retaining these local designations</li></ul>

#### Option B

Carry out a landscape assessment and use policies to safeguard these landscapes

Advantages	Disadvantages
Gives an evidence base and is more likely to accord with Government policy	Lose the specific policy support for these areas

#### Question 2

Out of Options A or B, what approach should the Council take in relation to the Farnham/Aldershot Strategic Gap and the Areas of Strategic Visual Importance?

Issue:

How to protect the character of the towns and villages

### Why is this an issue?

**1.15** Most of the new development that takes place in Waverley is within our towns and villages. The issue is how best to ensure that what development does take place does not adversely affect the townscape. This is about ensuring that the design of development is of a quality that contributes to rather than detracts from the character. There are national and local policies that promote good design as a matter of principle. However, the issue here is about the particular townscape of Waverley and what tools are available to allow necessary development to take place, whilst ensuring that it respects local character. It is also about focusing on the choices or options for the Council to consider.

**1.16** Whilst good design is important whatever the development, the focus in this part of the topic paper is on residential development. This is because we know that at least 5000 new homes will be provided in Waverley between 2006 and 2026 (as required by the Draft South East Plan). Much of the current housing development takes place through intensification within existing residential areas and we know that some of these generate concerns about the impact on local character. Proposals for new housing will continue to come forward within our towns and villages and the Council will need to decide on what tools it has or needs in order to ensure that the design, density and layout of development respects local character.

**1.17** There are already areas within our towns that have specific local designations that recognise their unique character. These include, for example, areas of south Farnham that have a distinct semi-rural character, and the hillsides in Haslemere and Godalming. There are also the numerous conservation areas that protect the historic character of parts of many of our towns and villages.

**1.18** There are also the many locally produced village design statements that provide valuable information on the distinctive character of settlements and are used to guide new development in these areas.

**1.19** In terms of options for the Council's Core Strategy, two particular issues are being considered:

- Whether the Council should consider setting local density policies to apply within the towns and villages; and
- What approach should be taken to safeguarding local character.

### Planning Policy Context

#### 1.20 National

**1.21** Planning Policy Statement (PPS)1 includes a section promoting the importance of good design. This is echoed in PPS3, which deals specifically with housing. PPS3 refers to the importance of making efficient use of land and says that a density of 30 dwellings per hectare should be used as a national indicative minimum to guide policy development and planning decision making. It also says that local authorities may wish to set out a range of densities across their area. Whilst it does not rule out setting densities below the national indicative minimum, this has to be justified.

#### 1.22 Regional

**1.23** Policy H5 of the Draft South East Plan deals with the design and density of new housing. It encourages local authorities to prepare guidelines for the design of new housing. It also says that in conjunction with high quality design, higher densities will be encouraged, in order to make best use of available land and to encourage more sustainable patterns of development. It goes on to identify the overall regional density target of 40 dwellings per hectare over the plan period. Local authorities are expected to reflect this target with appropriate local variations in their Local Development Documents.

**1.24** In the Draft South East Plan there is also a section dealing with the management of the built environment. It contains a number of policies that relate to townscape issues. These include Policy BE1: Management for an Urban Renaissance; Policy BE2: Suburban Intensification; Policy BE3: Suburban Renewal; Policy BE4: The Role of Small Market Towns; and Policy BE5: Village Management.

#### 1.25 Local

**1.26** The Waverley Borough Local Plan 2002 (saved policies) contains both general policies that seek to promote good design and to protect the environment (such as Policies D1 and D4). There are also policies to guide development in specific areas that have been identified as having special character. These are covered by policies BE2 to BE6. In terms of housing density, this is covered by Local Plan policy H4. However, it should be noted that the density guidelines in that policy are based on PPG3. That Government policy document has been replaced by PPS3 and its guidance on density.

### Main sources of evidence

**1.27** The issues of design, density and character are covered in many sources, including the outcomes from consultations to date, which have highlighted concerns about the potential impacts of new residential developments within existing developed areas, particularly existing residential neighbourhoods.



**1.28** There are two questions relating to the issue. The first is the approach on the issue of density generally and the second concerns the best way to ensure new housing development respects local character.

**1.29** Possible options relating to the density of new housing development:

### Option A

Do not set any specific density requirements, but rely on the national indicative density of 30dph and the related guidance in PPS3

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Quite a flexible approach - potentially more responsive to site specific considerations</li> </ul>	<ul style="list-style-type: none"> <li>• Could provide less certainty and clarity when making decisions</li> </ul>

### Option B

Set density ranges for different types of location across the whole of Waverley

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Would provide more certainty of what is required</li> <li>• Subject to the criteria used, it should assist in ensuring that development is appropriate for its location</li> </ul>	<ul style="list-style-type: none"> <li>• Could be regarded as being too prescriptive and less able to respond to site specific circumstances</li> </ul>

### Question 3

Out of Options A or B, what approach should the Council take in relation to the density of new housing development?

### 1.30 Possible options relating to the safeguarding of local character

#### Option A

Continue with current policies, including retaining the existing "character areas" and having general policies on design, density and layout that would apply to all areas

Advantages	Disadvantages
<ul style="list-style-type: none"><li>• Flexible approach</li><li>• Has delivered the required amount of housing in the past</li><li>• Gives protection to the existing "character areas"</li></ul>	<ul style="list-style-type: none"><li>• May not be providing adequate controls in relation to some housing developments.</li><li>• Areas not designated as "character areas" vulnerable to change/adverse impact on character.</li><li>• Some local residents do not consider this approach provides satisfactory protection from undesirable change resulting from higher density developments.</li></ul>

### Option B

Review existing character areas and identify new character areas, with other general policies on design and layout applying to all areas

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• May provide added protection to certain parts of the Borough</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying additional “character areas” or enlarging existing “character areas” could have the effect of moving the pressure for development to other locations with possible adverse consequences</li> <li>• Areas not designated as “character areas” vulnerable to change/adverse impact on character</li> <li>• Unless criteria are strictly defined, the identification of further areas may dilute the overall value of these designations.</li> </ul>

### Option C

Prepare new policies on design, density and layout, to manage change in all areas, based on a wider analysis of local character

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• should provide protection for all areas</li> </ul>	<ul style="list-style-type: none"> <li>• Could be regarded as being inflexible</li> </ul>

### Question 4

Out of Options A, B or C, what approach should the Council take in relation to safeguarding local character?

### Issue 1

How to protect the historic heritage

#### 1.31 Why is it an issue?

**1.32** The Spatial Portrait states that the Borough has a rich historic heritage with 45 Conservation Areas and over 1600 listed buildings. Protecting this heritage is an issue because there is always pressure for change which needs to be managed in such a way that there is no harm to historic buildings and areas. New design has to take proper account of their special character.

#### 1.34 Planning policy context

**1.35** The main Government policy guidance is Planning Policy Guidance(PPG) 15 Planning and the Historic Environment.

**1.36** This PPG provides a full statement of Government policies for the identification and protection of historic buildings, conservation areas, and other elements of the historic environment. It explains the role played by the planning system in their protection. There is strong policy guidance expressed as follows:

**1.37** "It is fundamental to the Government's policies for environmental stewardship that there should be effective protection for all aspects of the historic environment". (Paragraph 1.1). This statement gives a clear indication that protection of the heritage has a high priority in Government thinking.

**1.38** This approach is reflected in the draft South East Plan:Policy BE6 Management of the Historic Environment, which states:

**1.39** "When developing planning frameworks and considering applications for development consent, local authorities and other bodies will adopt policies and support proposals which support the conservation, and where appropriate the enhancement, of the historic environment and the contribution it makes to local and regional distinctiveness and sense of place....."

**1.40** . The Waverley Borough Local Plan 2002 "saved" policies reflect the importance given to the historic heritage in the Borough because there are 15 policies in the Plan on historic buildings, conservation areas, parks and gardens, enhancement schemes, archaeology, heritage features and historic landscapes. The opening words of the Historic Environment Chapter of the Plan state "the historic inheritance of the Borough is outstanding, and the policies reflect the importance of protecting this special heritage."

**1.41** It is evident that national, regional and local policy require local authorities to give considerable protection to the historic heritage.

### **1.42 Main sources of evidence**

- Planning Policy Guidance 15 Planning and the Historic Environment. 1994.
- The Draft South East Plan Companion Document 2008.
- "Saved policies" of the Waverley Borough Local Plan 2002.

**1.43** There are no real development options available for consideration on this issue because of the strong constraints established by national, regional and local policies.

## **BIODIVERSITY**

### **Relevant Core Strategy Objective**

To protect and enhance the diversity of the wildlife and habitats that are within the Borough

**1.44** The meaning of "biodiversity" is defined in the Department for the Environment, Food and Rural Affairs document "Guidance for Local Authorities on Implementing the Biodiversity Duty" (May 2007):

**1.45** "Biodiversity encompasses the whole variety of life on Earth. It includes all species of plants and animals, but also their genetic variation, and the complex ecosystems of which they are a part. It covers the whole of the natural world, from the commonplace to the critically endangered."

Issue:

How to protect biodiversity?

### **1.46 Why is it an issue?**

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**1.47** The Spatial Portrait states "There are also significant ecological assets within and close to the Borough, and numerous areas which have one or more local or national policies to protect them." These assets take the form of extensive nature reserves, specifically National Nature Reserves, Special Protection Areas, Special Areas of Conservation, Ramsar Sites, Sites of Special Scientific Interest, Local Nature Reserves, Regionally Important Geological or Geomorphological Sites and Sites of Nature Conservation Importance. These sites cover over 8000 hectares. In view of the very extensive areas of habitat, it is likely that the reserves will come under pressure from development at times, and they need to be safeguarded.

### **1.48 Planning Policy Context**

- The Government policy document for biodiversity is Planning Policy Statement (PPS) 9 "Biodiversity and Geological Conservation". The Government has identified key principles and these can be summarised for local authorities as:
  - base policies and decisions on up to date biodiversity information;
  - maintain and enhance restore or add to biodiversity and geological considerations
  - take a strategic approach;
  - promote the incorporation of biodiversity into the design of development;
  - prevent harm to biodiversity and geological conservation interests.

**1.49** The PPS provides protection for habitats and the document "Guidance for Local Authorities on Implementing the Biodiversity Duty" sets out a duty that "local authorities should consider the range of policies and strategies affecting the work of their organisation, the linkages to biodiversity and how policies and strategies can be developed and implemented to have regard to biodiversity".

**1.50** It is evident that there is strong Government guidance on protecting biodiversity.

**1.51** The Draft South East Plan also provides a policy on protecting biodiversity: Policy NRM5 Conservation and Improvement of Biodiversity. It states: "In the development and implementation of plans and strategies, local authorities shall avoid a net loss of biodiversity, and actively pursue opportunities to achieve a net gain across the region ....." and then sets out in some detail how this should be achieved.

**1.52** The significance of habitats in Waverley is reflected in the "saved policies" of the Waverley Borough Local Plan 2002, which has four policies on nature conservation, covering the national and international reserves, local designations and undesignated sites, as well as canals and river corridors.

### **1.53 Main sources of evidence**

**1.54** The main sources of evidence demonstrating the policy constraints on development are the policies documents already referred to. These are:

- Planning Policy Statement 9 Biodiversity and Geological Conservation. 2004

- Department for the Environment, Food and Rural Affairs document "Guidance for Local Authorities on Implementing the Biodiversity Duty" (May 2007);
- The Draft South East Plan Companion Document 2008;
- "saved policies " from the Waverley Borough Local Plan 2002;

**1.55** The Core Strategy will have to provide the local interpretation of the national and regional policies on biodiversity, having regard to the particular characteristics of the Borough. One important issue will be the need to consider the long term strategy for dealing with the impact of the Thames Basin Heaths Special Protection Area, which is potential constraint on development in the Farnham area. However, at this stage there are no real development options available for consideration on this issue because of the strong protection established by national regional and local policies on biodiversity.

## CLIMATE CHANGE

### Relevant Core Strategy Objectives

To deliver sustainable development that meet the needs of the existing community, whilst not compromising the quality of the life for future generations.

To deliver development that is sustainable and that is located, designed and built in such a way that it addresses the causes of climate change and, where necessary, is adapted to cope with the effects of climate change.

**1.57** This element of the Topic Paper deals with the broad strategies relating to climate change and sustainable development. It will set out a range of options for how Waverley could deal with climate change within the Core Strategy. Principally the issues of mitigation and adaptation will be explored with a focus on the following elements:

- Sustainable design and construction
- Renewable energy and low carbon technology
- Adaptation to the effects of climate change (including flooding)

**1.58** This part of the topic paper will not cover sustainability and climate change issues associated with:

- Transportation (car, public transport, walking and cycling)
- Location of housing, employment or community infrastructure
- Biodiversity
- Open space

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**1.59** Other elements of this paper and other topic papers will deal with these where relevant, with sustainability being a core principle for all of the Core Strategy issues and options. In addition the topic paper will focus on strategic policies rather than site-specific policies; these will be developed through future planning policy documents where necessary.

### Planning Policy Context

**1.60** Whilst there are specific planning policies associated with climate change, these link back to high level international commitments and targets. The following section outlines the current position, both in terms of planning policy and also confirmed commitments at all levels.

### International Level

**1.61** Kyoto Protocol (entered into force February 2005):

- Developed countries – 5.2% reduction in greenhouse gas emissions by 2008-2012 (over 1990 figures)

**1.62** Bali Conference (December 2007):

- Adoption of the "Bali Roadmap" to establish future international agreement on climate change.

**1.63** EU Directives:

- UK to achieve a 12.5% reduction in greenhouse gas emissions by 2008-12 (over 1990 figures).

**1.64** European Commission (January 2007):

- The EU is now committed to cutting its greenhouse gas emissions to at least 20% below 1990 levels by 2020, and will increase this reduction to 30% if the other industrialised countries agree to do likewise and developing countries also take action. To achieve this cut of at least 20%, existing measures such as the EU ETS will be supplemented by new measures aimed in particular at boosting energy efficiency 20% by 2020, increasing the share of renewable energy sources to 20% by 2020 and equipping new power stations with carbon capture and storage technology. (European Commission climate change website)

### National Level

**1.65** Stern Review (October 2006):

- The scientific evidence is now overwhelming: climate change is a serious global threat, and it demands an urgent global response.



- The Review estimates that if we don't act, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year, now and forever. If a wider range of risks and impacts is taken into account, the estimates of damage could rise to 20% of GDP or more.
- The costs of action – reducing greenhouse gas emissions to avoid the worst impacts of climate change – can be limited to around 1% of global GDP each year.
- The investment that takes place in the next 10-20 years will have a profound effect on the climate in the second half of this century and in the next.

### 1.66 Proposed Climate Change Bill:

- 2020 – 26: 32% reduction in carbon dioxide emissions (from 1990 levels)
- 2050 - 60% cut in major greenhouse emissions (from 1990 levels)
- Proposed target (16/10/08) 2050 – 80% cut in major greenhouse gas emissions (from 1990 levels).

### 1.67 Building a Greener Future (July 2007):

- New build dwellings to achieve Carbon dioxide emission savings on 2006 Building Regulation Levels Part L:
  - 2010 – 25% improvement over 2006 Building Regulations Part L (Code for Sustainable Homes equivalent Level 3)
  - 2013 – 44% improvement over 2006 Building Regulations Part L (Code for Sustainable Homes equivalent Level 4)
  - 2016 – zero carbon development (Code for Sustainable Homes equivalent Level 6)

### 1.68 Water Efficiency in New Buildings (July 2007)

- New residential developments will meet the standard of 125lts per person per day (from 2008, although this is yet to be implemented).

### 1.69 Budget announcement - PN01 (March 2008):

- An ambition for all new non-domestic buildings to be zero carbon from 2019 with consultation on the timeline and its feasibility and new public sector buildings from 2018.

### 1.70 National Planning Guidance (specifically related to climate change):

- PPS1 – Delivering Sustainable Development
- PPS1 Supplement – Planning and Climate Change (PPS1s) and draft companion guide

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- PPS22 –Renewable Energy & companion guide
- PPS25 – Development and Flood Risk

### Regional Level

#### 1.71 Regional Spatial Strategy – South East Plan (March 2006) & Secretary of State's (SoS) Proposed Changes (July 2008)

- Policy CC2:
  - 2010 – 20% reduction in carbon dioxide emissions (from 1990 levels)
  - 2015 – 25% reduction in carbon dioxide emissions (from 1990 levels)
  - 2026 – target to be developed
- Policy NRM11:
  - Interim measure that all new development of 10 dwellings or more or 1,000m<sup>2</sup> of non-residential floorspace shall secure at least 10% of their energy from decentralised and renewable or low carbon resources
- Policy EN4:
  - 2010 target of 140 MW land-based renewable energy (for Thames Valley and Surrey)
  - 2016 target of 209 MW land-based renewable energy (for Thames Valley and Surrey)

### Local Level

#### 1.72 Surrey Structure Plan (2004, saved policies September 2007)

- Policy SE1 - Natural Resources and Pollution Control
  - Environmental conservation and enhancement
  - Careful use of natural resources
  - Water management
  - General pollution control
- Policy SE2 - Renewable Energy and Energy Conservation
  - Development of renewable energy technologies
  - Energy efficiency
  - 10% renewable energy target
  - CHP on developments of over 5,000 sq m

#### 1.73 Surrey Design ( 2002)

- Chapter 4 includes various principles relating to resources, including
  - Energy efficiency
  - Water minimisation
  - Landscape and habitat retention and enhancement
  - Water management and pollution
  - Building materials should be reused, recycled and sustainably sourced

**1.74** Waverley Borough Local Plan (2002, saved policies 2007)

- Policy D3 - Resources
- Policy RD15 - Renewable Energy Installations

### **Main Sources of Evidence**

**1.75** Current Waverley Position (DEFRA statistics 2005/06).

**1.76** Monitoring information from Structure Plan policy SE2.

**1.77** The Environment Agency document "Areas of water stress: final classification" (2007) has identified that South East Water (the main water supplier serving Waverley) has been given a score of 36 and Thames Water (supplying a small area of the Borough) a score of 40. These scores mean that Waverley falls within an area of serious water stress. This score relates to the following issues where :

- The current household demand for water is a high proportion of the current effective rainfall which is available to meet that demand; or
- The future household demand for water is likely to be a high proportion of the effective rainfall which is likely to be available to meet that demand.

### **Options for dealing with Climate Change issues**

**1.78** There are a number of sub-issues associated with Climate Change, and these broadly fall into the categories of mitigation or adaptation. Mitigation means that policies must be established to reduce the impact of human activity, primarily through reducing greenhouse gas emissions. The energy hierarchy is a useful tool when considering mitigation measures, this suggests a 'sequential' approach:

1. Reduce the need for energy within the buildings design
2. Use energy more efficiently in the building
3. Supply energy from renewable energy or low carbon sources

**1.79** In comparison, adaptation reflects the need for natural and human systems to respond directly to impacts of climate change. For each area a number of sub-issues have been identified.

### **Mitigation Issues**

**Issue:**

How should the Core Strategy deal with sustainable design and construction?

### Why is this an issue?

**1.80** Sustainable design and construction refers to the elements of a property that may not be seen, but can contribute significantly to savings in carbon emissions, water and waste. Whilst this is principally a mitigation measure, certain elements also fall within the adaptation category.

**1.81** Currently Part L of the 2006 Building Regulations set the minimum standards for which the construction of new buildings must meet. Building a Greener Future has outlined the Governments Commitment to improve the standards for new dwellings in a staged process – with the aim that all new dwellings from 2016 will achieve zero carbon homes status. In parallel to this, the Government announced in the March 2008 Budget, that all new non-residential buildings will meet zero carbon standards from 2019. The expectation is that Building regulations will be amended to accommodate these changes. Whilst planning policy cannot replicate other legislation it can implement policies to bring forward changes in advance of changes to regulations.

**1.82** There are a number of areas of sustainable design and construction that will need to be considered. Each area will ensure that the development is designed, from the outset, to be more sustainable than current requirements. These aspects will also need consideration early on to conform with the principles of the energy hierarchy. The following areas have been identified for consideration:

- Reuse of land and buildings (where practical)
- Passive solar design (including: orientation, design & layout to maximise passive solar gain and shading)
- Energy efficiency
- Water Minimisation (including: rainwater harvesting and greywater recycling)
- Modern methods of construction
- The sustainable sourcing of materials (including: use of the Green Guide to Specification)
- Waste minimisation (including: minimise, reuse and recycle where practical and ensure that adequate facilities are designed in for refuse and recycling storage)
- Internal design and layout of buildings to be robust and flexible (including: amenity space)
- Use of Code for Sustainable Homes
- Use of BREEAM (or equivalent)
- Site specific issues (i.e. sites where increase levels can be accommodated)

**1.83** This policy area is not just about new dwellings, but all new developments.

**1.84** Whilst there are very many areas associated with sustainable design and construction, it is considered that only two elements could be easily translated into specific requirements. These areas relate to energy efficiency and water minimisation, however there is also a potential option relating to the use of Code for Sustainable Homes (residential) and BREEAM (non-residential).

**1.85** The Code for Sustainable Homes and BREEAM are environmental assessment tools for buildings. Each method results in a level or rating being awarded. The Code for Sustainable Homes can be used for all new residential developments, whereas BREEAM is broken down into a variety of assessments (including: bespoke, courts, healthcare, industrial, multi-residential, prisons, offices, retail, education and communities).

**1.86** Rather than establishing a number of separate policies to address water and energy efficiency, the Code for Sustainable Homes (dwellings) and BREEAM rating (non-residential development) could be used to control these elements. In order to meet a specific Code / BREEAM level, other aspects of sustainable design and construction would need to be addressed (including: energy & CO<sub>2</sub> emissions, water, materials, surface run off water, waste, pollution, health and well being, management and ecology). This results in a holistic and sustainable approach to the design and construction of new buildings.

**1.87** From May 2008, it became a mandatory requirement for all new dwellings to have an assessment against the Code for Sustainable Homes, even if no level was achieved. No such requirement is in place for non-residential buildings.

**1.88** It is important to note, that whilst "Building a Greener Future" will require step changes in energy efficiency that reflect the levels contained within the Code for Sustainable Homes, it does not go on to expect that all new dwellings will be required to meet a specific code level. The following options present a choice between using the Building Regulations as the principal tool for delivering energy and water efficiencies or introducing planning policies seeking higher levels of energy and water efficiencies than those currently required by Building Regulations. It is important to note that further evidence may be required to establish if it is reasonable to bring forward energy and water efficiency requirements that exceed those currently required by Building Regulations.

### 1.89 Energy Efficiency Options:

#### Option A

Building Regulations used to control minimum building energy efficiencies.

Advantages	Disadvantages
<ul style="list-style-type: none"><li>• Clear assessment method outside of planning control.</li><li>• Established approach that is transparent and understood by the development profession.</li><li>• Applied consistently to all new developments, including extensions.</li></ul>	<ul style="list-style-type: none"><li>• This only requires minimum standards.</li><li>• Will not require improved efficiencies, this would only be voluntary.</li><li>• Information not required to be submitted for planning monitoring.</li></ul>

### Option B

Bring forward the Building Greener Future requirements (and similar standards for non-domestic buildings - see paragraph 1.11).

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Clearly defined standards above currently Building Regulations will give certainty whilst improving requirements.</li> <li>• Can be the cheapest and easiest way of achieving significant carbon savings within the built environment.</li> <li>• Integrated energy efficiency is unlikely to be removed or changed by future occupiers.</li> <li>• Improving requirements before regulation changes will create a smooth transition to 2016.</li> <li>• No specified way of meeting the requirements, giving choice to the developer.</li> <li>• Will be a requirement, not voluntary.</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation and monitoring may be problematic.</li> <li>• Perception that this could have an effect on viability as a result of higher development costs.</li> <li>• Evidence is required to show that it is reasonable to bring forward requirements ahead of the proposed changes to Building Regulations.</li> </ul>

### Option C

Require that all new buildings (both residential and non-residential) meet a specific Code for Sustainable Homes level or BREEAM rating.

Advantages	Disadvantages
<ul style="list-style-type: none"><li>• Holistic approach taken to all new buildings.</li><li>• Need for only one policy to cover most aspects of sustainable design and construction.</li><li>• Identified and accepted assessment procedure means that implementation is easily monitored.</li><li>• Energy and water efficiency are specified at each level of the Code / BREEAM, with additional 'points' achieved through a variety of sustainable measures, (to a degree) specified by the developer.</li></ul>	<ul style="list-style-type: none"><li>• Issues surrounding build costs and potential effect on development.</li><li>• Only covers new build, not extensions or existing stock.</li><li>• BREEAM may not cover all non-residential uses.</li></ul>

### Question 5

Out of Options A, B or C, what approach should the Council take in relation to energy efficiency in new developments?



**1.90** Water Minimisation Options:

**Option A**

Building Regulations to control minimum building water efficiencies.

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Clear assessment method outside of planning control.</li> <li>• Established approach that is transparent and understood by the development profession.</li> <li>• Applied consistently to all new developments, including extensions.</li> </ul>	<ul style="list-style-type: none"> <li>• This only requires minimum standards.</li> <li>• Will not require improved efficiencies, will only be voluntary.</li> <li>• Information not required to be submitted for planning monitoring.</li> </ul>

**Option B**

Bring forward requirements of "Water efficiency in new buildings" (see paragraph 1.12).

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Clearly defined standard above currently Building Regulations will give certainty whilst improving requirements.</li> <li>• Improving requirements before regulation changes will create a smooth transition.</li> <li>• No specified way of meeting the requirements, giving choice to the developer.</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation and monitoring may be problematic.</li> <li>• Potential addition to development costs.</li> <li>• Only one improvement suggested, and that only relates to dwellings. Non-residential excluded.</li> <li>• Requirement is challenging, but unlikely to be relevant for the life of the Core Strategy.</li> </ul>

### Option C

Require that all new buildings (both residential and non-residential) meet a specific Code for Sustainable Homes level or BREEAM rating.

Advantages	Disadvantages
<ul style="list-style-type: none"><li>See Option C in table relating to energy efficiency options</li></ul>	<ul style="list-style-type: none"><li>See Option C in table relating to energy efficiency options</li></ul>

### Question 6

Out of Options A, B or C, what approach should the Council take in relation to water minimisation?

**1.91** Whatever the preferred option is, there will also be the need to consider the thresholds above which these requirements apply and the timescale for implementation. For example if the Council decides to bring forward higher requirements for energy efficiency and water minimisation than those required by Building regulations, it could choose to phase these over a period of time. The final policy will also need to accommodate the ability to increase the requirements at a site specific level, where opportunities are identified. These site specific requirements are likely to be identified within future local planning documents.

**1.92** In combination with the above options, a final policy will be required encouraging the use of various efficiency measures in all new developments. This policy should include:

- Reuse of land or buildings where practical
- Incorporation of passive solar design
- Energy efficiency (\*)
- Water minimisation (\*)
- Use of modern methods of construction (where practical)
- Sustainable sourcing of construction materials
- Flexibility and adaptability in the internal and external design of the building
- Appropriate levels of amenity space for residential developments (this element supported by a Development Control policy within a future DPD)

**1.93** (\*) these points should be included, but are dependant upon the preferred options and thresholds included within other proposed policies in this section.

**1.94** It is expected that supplementary documents will be published to support these policies and offer relevant guidance for their delivery.

**Issue:**

How should the Core Strategy address the need for renewable energy and low carbon technologies?

### Why is this an issue?

**1.95** Currently Waverley implement Policy SE2 of the Surrey Structure Plan and particularly the requirement that 10% of energy used by a development is from renewable sources. Waverley applies this to all new residential and non-residential buildings. The Council will have to decide how to take this forward through the Local Development Framework.

**1.96** The proposed South East Plan sets new interim thresholds for the 10% requirement. These are higher than Waverley's current thresholds. If adopted in Waverley it would mean that only developments of 10 dwellings or more, or 1000sq m or more of non-residential floorspace would be expected to meet the 10% requirement. In addition, the 10% target relates to renewable and low carbon technologies, not just renewables, as is currently required. However, the current policy framework also allows for Core Strategies to set different targets at the local level, where such targets are fully tested. Indeed PPS1s has a strong emphasis on decentralised and renewable or low carbon technology installations as well as supporting the need to secure a proportion of energy supply of new developments from these sources.

**1.97** In addition to the above, both PPS1s and PPS22 gives support and encouragement for stand alone decentralised, low carbon or renewable energy installations. There is a need to consider the ability for such installations within Waverley, and possibly a criteria based policy to encourage such developments.

**1.98** Areas for consideration:

- % requirement for renewable/low carbon technology verses zero carbon development
- Site specific issues (i.e. sites where increase percentage can be accommodated)
- Existing building stock including extensions

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- Decentralised, low carbon or renewable energy technology installations
- Individual and one off installations (both small and large scale)

### Option A

Revert to the proposed SE Plan policy NRM11 (i.e. threshold of 10 dwellings or 1000 sq m for non-residential developments).

Advantages	Disadvantages
<ul style="list-style-type: none"><li>• Could result in lower development costs for smaller schemes</li></ul>	<ul style="list-style-type: none"><li>• Would mean that fewer developments in Waverley would be required to provide a proportion of their energy from renewable or low carbon sources, making it more difficult to meet targets for CO2 reductions.</li></ul>

### Option B

Continue to implement a 10% renewable energy technology or low carbon technology requirement on developments with a lower threshold than the SE Plan.

Advantages	Disadvantages
<ul style="list-style-type: none"><li>• Have been implementing since 2006, evidence suggests that this can be achieved against the current thresholds</li><li>• Developers already understand the policy and its requirements.</li><li>• Can redefine elements of the existing policy that do not work well</li><li>• Greater contribution to meeting targets for CO2 reductions</li></ul>	<ul style="list-style-type: none"><li>• No change to current circumstance.</li><li>• May not be relevant for the whole life of the Core Strategy, for example if requirements needed to increase to meet the increasing requirements for cuts in CO2 emissions.</li><li>• Potential impact on development viability - will be necessary to evidence that this approach continues to be achievable</li></ul>

### Option C

Staged approach with an increasing % and/or thresholds to reflect the move towards zero carbon homes in 2016 and non-residential buildings in 2019.

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>Reflects the timescale of the Core Strategy and will ensure that the targets are achievable yet challenging.</li> </ul>	<ul style="list-style-type: none"> <li>Issue of viability for the different uses (i.e. It may cost more to achieve with certain uses).</li> <li>Will be necessary to evidence that this approach is achievable</li> </ul>

**1.99** In order to progress the above policy options, decisions would have to be taken relating to how the policy would be implemented, what uses would be covered, the thresholds for implementation and whether different approaches would be required dependant upon the use. In addition there is a further option considering whether the calculations should be in carbon emissions (CO<sub>2</sub>) or energy (kilowatt hours).

**1.100** In addition, if the Council chooses to continue with a policy with lower thresholds than the interim thresholds proposed in the draft South East Plan, it will be necessary to demonstrate that this is reasonable and deliverable in Waverley.

### Question 7

Out of Options A, B or C, what approach should the Council take in relation to the use of renewable energy and low carbon technologies in new developments?

### 1.101 Options regarding the way that energy savings are calculated:

#### Option A

Calculations are made based on energy.

Advantages	Disadvantages
<ul style="list-style-type: none"><li>• Currently preferred method.</li><li>• Uses with a high gas demand find it easier to achieve.</li></ul>	<ul style="list-style-type: none"><li>• Because of a 'carbon factor' gas and electricity are not readily comparable.</li><li>• Non-residential uses with a high electricity demand are penalised.</li></ul>

#### Option B

Calculations are made based on CO<sub>2</sub> emissions.

Advantages	Disadvantages
<ul style="list-style-type: none"><li>• Gas and electricity are calculated equally.</li><li>• Clear links back to national and international targets.</li><li>• Becoming more commonplace to calculate in CO<sub>2</sub>.</li><li>• All developments are considered equally and fairly.</li></ul>	<ul style="list-style-type: none"><li>• The term energy is used in paragraph 20 of PPS1s, so there could be a concern that this approach does not conform.</li></ul>

#### Question 8

Out of Options A or B, what approach should the Council take in relation to the way in which energy savings are calculated?

**1.102** Given the Waverley experience of implementing Policy SE2, is not considered optional that calculations be based on total energy consumption of a site (to include both regulated and unregulated energy consumption) rather than regulated energy consumption alone.

**1.103** Having regard to national and regional policy, the LDF will also be expected to:

- Encourage and promote the installation of stand alone renewable energy or low carbon technologies (in accordance with PPS1s and PPS22)
- Encourage and promote the use of decentralised energy on new sites (high level Core Strategy Policy in accordance with PPS1s, supported by further policies within DPD's or SPD's).

**1.104** At this stage, there are no clear options, beyond ensuring that the LDF accords with national and regional policy on these two matters. In order to establish the above policies, a PPS1s evidence base will be required to establish opportunities these installations.

### Adaptation

Issue:

How should the Core Strategy ensure that developments adapt to the consequences of Climate Change?

### Why is this an issue?

**1.105** In 2002 DEFRA launched the climate change scenarios (through UKCIP). The scenarios show that average annual temperatures across the UK may rise by between 2° and 3.5°C by the 2080s, with the degree of warming dependent on future levels of greenhouse gas emissions. In general there will be greater warming in the south and east than in the north and west of the UK. In addition rainfall amounts will also change with winters will become wetter and summers may become drier across all of the UK. The largest relative changes will be in the south and east where summer precipitation may decline by up to 50 % by the 2080s. Heavy winter precipitation will become more frequent, but the amount of snow could decline by 60% - 90% by the 2080s.

**1.106** In essence we will experience hotter, drier summers (more heat waves) and milder wetter winters.

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**1.107** Whilst mitigation measures (identified in the options above) could help to reduce greenhouse gas emissions, and thus the potential rate and degree of change, it is also important to safeguard the future and identify methods to adapt to these potential changes.

**1.108** Adaptation can include the following:

- Locating and designing new development to address flood risk issues in Waverley
- Sustainable drainage solutions
- Appropriate orientation and layout of development
- Use of insulation in buildings including green roofs and walls
- Design of buildings to prevent overheating and encourage shading
- Appropriate landscaping suitable for the climate and to facilitate shading
- Appropriate natural and passive ventilation designed in at the outset
- Suitable green infrastructure (including public open space and water features)
- 

**1.109** A number of these measures represent good urban design, and in terms of policy there are, therefore, limited choices. However, on issues like water efficiency and sustainable drainage measures, there may be choices that the Council will have to make in developing policy. For example, Policy NRM1 of the draft South East Plan, deals with sustainable water resources and groundwater. It states that through the LDF, local authorities should identify the circumstances where new development should incorporate sustainable drainage solutions. It also says that LDFs should indicate the circumstances under which new development will need to be supported by water efficiency measures that exceed existing Building Regulations standards.

**1.110** Another important issue linked to adaptation is flood risk. In developing its strategy for where new development can take place, the Council will have regard to a number of constraints and one of these is flood risk. The Council will be producing a Strategic Flood Risk Assessment (SFRA), in consultation with the Environment Agency. This will help to inform the decisions about broad locations for development and specific sites. It will also help in providing evidence to support decisions about areas where specific measures such as Sustainable Drainage Solutions should be applied. Until this work is complete it is not considered that there are options to present on measures to adapt to the consequences of Climate Change.