

Wealden Climate Change Policy

Introduction

This climate change policy outlines the strategic context in which Wealden is addressing climate change. The following supporting evidence and issues explains climate change and its possible impacts in Wealden, the policy context, policy aims and objectives, and action plan themes. The action plan linked to this policy sets targets and a framework for monitoring delivery to ensure that we meet the objectives in the policy. This will be linked to an annual sustainability report to Cabinet as outlined in the sustainability strategy.

Aims

As a local leader and service provider, Wealden District Council recognises that it has a part to play in ensuring that quality of life is not adversely affected for future generations.

This climate change policy together with the action plan outlines how Wealden District Council will try to limit the effects of climate change by lowering its own greenhouse gas emissions and how we will work with our partners and the community to help reduce emissions across the district. We will also plan for climate change when delivering services and try to adapt to the potential risks and consequences.

Overarching Policy Objectives

The policy objectives have two strands: mitigation and adaptation. Mitigation is about how the Council will look to lower its emissions, thus reducing our contribution to climate change. Adaptation is about how the Council will examine risks posed by climate change and prepare for the possible consequences.

The following policy objectives derive directly from signing the Nottingham Declaration:

- Work with central government to contribute, at a local level, to the delivery of the UK climate change programme
- Assess our carbon footprint, evaluate measures to reduce it and achieve a significant reduction of greenhouse gas emissions from all of Wealden District Council's operations
- Encourage all sectors in the local community to reduce their own greenhouse gas emissions and to make public their commitment to action
- Work with key providers, including the health community, emergency services, businesses and development organisations, to assess the potential effects of climate change on our communities, and to identify ways in which we can adapt

Action Plan Themes

The overarching objectives of this policy will be achieved through action in the following key theme areas of the accompanying action plan:

- Corporate
- Spatial Planning
- Waste
- Water
- Energy

Supporting Evidence and Issues

What is Climate Change?

Climate change is the recognised term for long-term changes to the earth's climate. The vast majority of scientists agree that climate change is occurring as a result of the greenhouse gases that have been and continue to be released into our atmosphere. The most important source of these emissions is the burning of fossil fuels, which we use as a source of energy.

Several greenhouse gases contribute to climate change. Carbon dioxide is the most important because it is released in much greater volumes. Other greenhouse gases, such as methane, are more potent at trapping heat than carbon dioxide on a weight for weight basis, but are emitted in much smaller volumes.

If appropriate action is not taken, we could see some catastrophic consequences of high temperatures (for example, melting of the permafrost¹ or die-off of trees²) leading to further releases of methane and carbon dioxide. This, in turn, would increase the rate of warming even further^{3,4}.

The term 'carbon dioxide equivalents' is used to account for the stronger global warming potential of other greenhouse gases, so that the effect of emissions on climate change can be measured. For example, methane is 21 times more potent than carbon dioxide, so emitting one tonne of methane is expressed as 21 tonnes in carbon dioxide equivalents.

The possible effects of climate change in Wealden

The UK Climate Impacts Programme (UKCIP) has produced a range of climate predictions for the South East. From these 'climate change scenarios', we expect to see hotter, drier summers with the risk of more frequent droughts, and, milder winters with more rainfall and an increased risk of flooding. These changes will have benefits as well as dangers. For example, the number of deaths related to cold weather in winter is projected to fall. However, deaths related to hot weather are predicted to rise in number⁵. The following table lists

the main risks and opportunities that have been identified as being relevant to areas like Wealden district.

Risks:

- increased risk of flooding⁶
- more severe droughts⁷
- more extreme weather events⁸
- hotter summers and potentially fatal heat-waves⁹
- higher sea levels and storm surges¹⁰
- increased insurance premiums owing to large/numerous climate change-related claims¹¹
- changes that affect wildlife and agriculture¹²
- the spread of human and agricultural diseases and pests¹³
- disruption to the transport infrastructure¹⁴

Opportunities¹⁵:

- new technological requirements, especially in fuel and water efficiency
- more opportunities for recreation and tourism during longer warm periods
- agricultural opportunities such as vineyards and 'energy crops'
- financial sector opportunities through expansion of the European Union Emissions Trading Scheme
- need for installation and service engineers as insulation and efficient boilers are used to reduce residential carbon dioxide emissions

In 2000, floods in Uckfield damaged businesses and properties by the river in the town centre and the industrial centre. Approximately 80% of businesses were flooded to one metre for over 24 hours¹⁶. People further down river in Lewes were also hit, with 836 residential properties affected¹⁷. In summer 2007, more heavy rain caused flash flooding in Uckfield and other areas of Wealden.

The South East of England experienced continuous drought conditions for almost two years from November 2004. In summer 2006, rainfall in much of Wealden district was less than 60% of the long-term average. The drought led to a long hosepipe ban, restrictions on agricultural irrigation and had a serious impact on wildlife in ponds and rivers¹⁸.

Wealden district has a variety of landscapes from Ashdown Forest and the High Weald Area of Outstanding Natural Beauty in the north to the Pevensy levels and Birling Gap on the coast. The plants and animals that make these places distinctive are potentially threatened by climate change.

For the majority of residents, the environment and scenery are among the most highly valued aspects of living in Wealden¹⁹. This perspective is reflected in the Wealden Community Strategy.

Both livelihoods and wildlife will be affected by climate change. In response, people at every level are finding ways to reduce greenhouse gas emissions and to prepare for the risks associated with climate change. These responses are summarised in the policy context below.

Policy Context

International

Climate change is a global issue that will affect everyone. The 1992 United Nations Framework Convention on Climate Change initiated the worldwide effort to tackle climate change and has been signed by almost all nations and all the main emitters of greenhouse gases. Quantified binding targets for reductions in greenhouse gas emissions were incorporated into the Kyoto Protocol in 1995, but have not been universally agreed. However, the EU committed to reduce emissions by 8% compared to 1990 levels by 2012²⁰, and additionally has set its own target of a 20% reduction by 2020.

National

The UK agreed to reduce greenhouse gas emissions by 12.5% by 2012 as our contribution to the EU's commitments under the Kyoto Protocol. The government has a target to reduce domestic carbon dioxide emissions by 20% (compared with 1990 levels) by 2010, and their draft Climate Change Bill aims to reduce carbon dioxide equivalent emissions by at least 60% over 1990 levels by 2050²¹.

In 2006, the government commissioned a review by economist, Sir Nicholas Stern. In examining the economic impacts of climate change, the report states that without action, the overall costs and risks of climate change will be equivalent to losing at least 5% of global Gross Domestic Product (GDP) each year, from now on. If a wider range of risks and impacts is taken into account, the estimates of damage could rise to 20% of GDP or more. On the other hand, the cost of rapid action to reduce greenhouse gas emissions can be limited to around 1% of global GDP each year.

Wealden District Council's Approach

Wealden District Council's Sustainability Strategy

The sustainability strategy aims to provide an overarching framework to guide the Council in integrating and co-ordinating the principles of sustainability across all its strategies, plans, policies and actions.

More specifically, the strategy seeks to ensure that Council plans and policies contribute to and support the following objectives:

- Promote sustainable consumption and production
- Reduce energy consumption and the effects of climate change
- Protect and enhance our natural resources
- Foster sustainable communities

Nottingham Declaration

In 2007 Wealden District Council signed the Nottingham Declaration on Climate Change. This commits the Council to:

1. Work with central government to contribute, at a local level, to the delivery of the UK climate change programme, the Kyoto Protocol and the target for carbon dioxide reduction by 2010.
2. Participate in local and regional networks for support.
3. Within the next two years develop plans with our partners and local communities to progressively address the causes and the impacts of climate change, according to our local priorities, securing maximum benefit for our communities.
4. Publicly declare, within appropriate plans and strategies, the commitment to achieve a significant reduction of greenhouse gas emissions from our own authority's operations, especially energy sourcing and use, travel and transport, waste production and disposal and the purchasing of goods and services.
5. Assess the risk associated with climate change and the implications for our services and our communities of climate change impacts and adapt accordingly.
6. Encourage all sectors in our local community to take the opportunity to adapt to the impacts of climate change, to reduce their own greenhouse gas emissions and to make public their commitment to action.
7. Monitor the progress of our plans against the actions needed and publish the result.

In implementing our climate change policy and action plan, Wealden District Council is seeking to move forward on each of our commitments under the Nottingham Declaration. In order to identify and monitor priority actions that would most effectively result in reduced greenhouse gas emissions, an audit of the Council's current emissions will be conducted. We will also seek to find ways of working with all sectors of the local community to achieve emissions reductions across the district.

National Indicator Set

As part of the new Performance Framework the Government has published a single set of national indicators and it is likely that elements of the Nottingham Declaration commitments will become duties for local authorities. In particular, monitoring and reducing authorities' carbon footprints and ensuring that their areas are well prepared for the changes and risks climate change is likely to bring.

Local Development Framework Sustainability Appraisals

All appropriate documents in the Local Development Framework are subject to Sustainability Appraisals. Sustainability Appraisals are used to evaluate the social, economic and environmental impacts of local development policies and strategies to ensure that the policies and strategies are in accordance with Sustainable Development objectives.

Purpose and Priorities

The Leader's Purpose and Priorities report in October 2007 set the direction for the Council for the following four years. The Corporate Plan and the Medium Term Financial Strategy for 2008/11 will adopt the new corporate objectives:

- Putting people first
- Pride of place
- Purpose through partnership

Pride of place includes the preservation and enhancement of the environment for future generations. The report discusses embedding sustainability in all operations of the Council and in work the Council seeks to do in the future. Our approach to climate change will form a key part of this work as mitigating and adapting to climate change will benefit environmental sustainability and contribute to positive social outcomes. The challenge of climate change however cannot be address by Wealden District Council alone, and it will be important for the Council to work with other partners in the district and wider area to meet the aims of the policy.

Action Plan Themes:

Corporate

This policy and action plan takes a corporate approach to limiting the local community's and the Council's impact on climate change, and to our plans for adaptation. The climate change policy sits within the overarching framework of Wealden's sustainability strategy.

The Council will establish a baseline and reduce greenhouse gas emissions from all of its operations and services. From this base, we will develop more specific objectives for all service areas to minimise their contribution to climate change. All staff and elected members will be expected to consider their impact on climate change mitigation and adaptation, and encouraged to take action to make a positive impact.

Spatial Planning

The impact of new buildings on climate change in Wealden district can be significantly reduced through the planning system. Domestic emissions account

for around 27% of the total carbon dioxide emissions from the UK²². The two main sources of emissions from homes are typically heating (58%) and hot water²³. Building Regulations, which are enforced by the Council's Building Control Team, govern the efficiency of heating and lighting and in the future may also be used to reduce the environmental impact of construction methods and materials. The government is also consulting on water efficiency regulations²⁴.

Buildings influence the vulnerability of an area to flooding and are also prone to damage from flooding. Most built surfaces let water into the ground beneath much more slowly than natural surfaces, resulting in an increase in the volume of water running off.

The Council promotes sustainability as an integral part of the Local Development Framework (LDF) – the planning document which will determine what can be built in the district and where. Through the Sustainability Checklist and Design Guide developers are encouraged to follow best environmental building practice.

Climate change mitigation and adaptation objectives:

- Ensure that the Local Development Framework links with the aims and objectives of the climate change strategy
- Work in partnership with developers to reduce the contributions of constructing and running commercial and residential buildings to climate change
- Ensure that planning policy encourages consideration of the risks posed by climate change, and encourages developers to adapt accordingly

Waste

When certain types of waste in landfill sites decompose, they create methane, a greenhouse gas with a global warming potential 21 times more powerful than carbon dioxide. This process can be mitigated by reducing the volume of material that goes to waste, especially the types that degrade into greenhouse gases, or by processing waste in different ways.

Wealden District Council has a good track record on recycling, and this will continue to improve as the kerbside recycling scheme is rolled out to all rural areas in the district by 2010. The Council will continue to actively educate and support the public and businesses on reducing waste and recycling.

Climate change mitigation and adaptation objectives:

- Continue to promote waste reduction by homes and businesses
- Continue to increase recycling rates and the use of composting

Water

Water supply is a major issue, especially for the South East where there is high demand from the population, industry and leisure – the South East has the highest demand for water per head in the UK. The risk of drier summers is likely to lead to extended restrictions on water use, and water may need to be brought in from other regions²⁵. Flooding in 2007 also demonstrates the need to protect water supplies from contamination and address issues around surface water drainage. We may experience an increase in high winds, which would cause more frequent breaches of coastal defences²⁶.

Reducing water consumption also mitigates climate change by reducing the emissions associated with pumping and sanitisation.

Climate change mitigation and adaptation objectives:

- Improve flood protection and encourage people to be prepared for this risk
- Lower water consumption in Wealden District Council, and the wider community

Energy

As a major employer in the area, Wealden District Council should take a lead by lowering its own energy use, and encouraging more businesses and residents to do the same. This includes the use of fuel for transport, where we will continue to promote car-sharing and the use of public transport. We will also encourage the development of decentralised renewable energy to reduce the carbon dioxide emissions that are associated with energy use.

Climate change mitigation and adaptation objectives:

- Reduce energy use in Wealden District Council buildings and in the wider community
- Encourage the development of decentralised renewable energy

Protecting the Natural Environment

Wetter winters, longer dry periods in the summer with water shortages and flash floods²⁷ will all affect the ability of plants and animals to survive in Wealden district. The distribution of wildlife is already changing in the UK, with southern species expanding northwards and cold-loving species declining or disappearing. This is more important in Wealden district's rare and distinctive habitats, such as heathland in Ashdown Forest and the chalk grassland of the downs, because of the longer distances between locations where species with these specialist requirements can exist²⁸. In time, climate change is likely to transform the appearance of Wealden district's landscapes.

It is important that plans are made to assist our natural environment to adapt to changes in the climate and weather patterns, where possible. We will work with partners to protect the variety of landscapes that make up Wealden district, and the biodiversity of these habitats.

Climate change mitigation and adaptation objectives:

- Work with partners to plan to manage risks to the environment posed by climate change
- Protect our natural resources and biodiversity

Community Action

The Department for the Environment, Food and Rural Affairs (Defra) has estimated domestic emissions for Wealden district at 2.7 tonnes of carbon dioxide per person in 2005. This compares with a South East average of 2.5 tonnes and the UK average of 2.5 tonnes. These figures include Wealden district's domestic emissions only (36% of the total). They do not include vehicle emissions (42%) or industrial and commercial emissions (21%)²⁹.

As a leader in the community, Wealden District Council will use available resources to continue to develop and deliver a programme of education on climate change and sustainability for members of the public and the business community. This includes actions people can take to reduce greenhouse gas emissions and be prepared for the risks of climate change, particularly flooding and heat waves.

Many of the risks and opportunities arising from climate change are best addressed by working with others. The Council is an active member of several successful partnerships, such as the Wealden Local Strategic Partnership, the East Sussex Strategic Partnership and the Sussex Sustainable Network that are well suited to tackling objectives relating to climate change. Together these partnerships can lead on addressing and preparing for climate change in the community.

Climate change mitigation and adaptation objectives:

- Raise awareness of climate change in the context of broader sustainability issues

Further Information and References

¹ “The main projected impacts [of climate change]” are listed, including “Accelerated release of carbon from vulnerable carbon stocks, especially peatlands, tundra frozen loess (‘yedoma’), permafrost soils, and soils of boreal and tropical forests is virtually certain.” Page 45. Intergovernmental Panel on Climate Change Working Group II: Impacts, adaptation and vulnerability contribution to the IPCC fourth assessment report: Parry, M.L., O.F. Canziani, J.P. Palutikof and Co-authors (2007): *Technical Summary. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 23-78. Technical summary: <http://ipccwg.qbicinternet.co.uk/ts.pdf> - Full report index: <http://www.ipcc-wg2.org/index.html>

² Fred Pearce (2006). Climate change: ‘One degree and we’re done for’. From issue 2571 of *New Scientist* magazine, 27 September 2006, page 8-9. <http://www.newscientist.com/article/mg19125713.300-one-degree-and-were-done-for.html>

³ Fred Pearce (2006). Climate change: ‘One degree and we’re done for’. From issue 2571 of *New Scientist* magazine, 27 September 2006, page 8-9. <http://www.newscientist.com/article/mg19125713.300-one-degree-and-were-done-for.html>

⁴ “The main projected impacts [of climate change]” are listed, including “Accelerated release of carbon from vulnerable carbon stocks, especially peatlands, tundra frozen loess (‘yedoma’), permafrost soils, and soils of boreal and tropical forests is virtually certain.” Page 45. Intergovernmental Panel on Climate Change Working Group II: Impacts, adaptation and vulnerability contribution to the IPCC fourth assessment report: Parry, M.L., O.F. Canziani, J.P. Palutikof and Co-authors (2007): *Technical Summary. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 23-78. Technical summary: <http://ipccwg.qbicinternet.co.uk/ts.pdf> - Full report index: <http://www.ipcc-wg2.org/index.html>

⁵ Department of Health report ‘*Health Effects of Climate Change in the UK, 2007 draft update*’ http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_074439

⁶ ‘*Foresight Future Flooding report*’ (Foresight/Office of Science and Technology, 2004). “The estimation of future flood risks is difficult due to future uncertainties. However, all scenarios point to substantial increases.” “The rate of increase in flood risks will vary between scenarios and will be influenced by three factors. 1) Climate change – the particular climate-change scenario we associated with World Markets has a rapid rise in global emissions of greenhouse-gases from now until 2080 and then flattens out. Other emissions scenarios start with slower rates of increase. 2) The rate at which the value of the properties and infrastructure at risk increase. 3) The rate at which building takes place in flood-risk areas.” Website: http://www.foresight.gov.uk/Previous_Projects/Flood_and_Coastal_Defence/index.html. See also the Environment Agency’s flooding pages: <http://www.environment-agency.gov.uk/subjects/flood/763964/?version=1&lang=e>

⁷ According to the Met Office’s (2005) ‘*Climate Change and the Greenhouse Effect. A briefing from the Hadley Centre.*’ the most probable changes in rainfall for England and Wales are of summer rainfall decreases of 20 to just over 30%, and, of increases in winter rainfall of between 15 and 30% by 2080 (page 56). However, Sussex is one of the areas where the changes are likely to be most extreme, at least in a medium–high emissions scenario, with the possibility of less than 50% of current summer rainfall and a 20–30% increase in winter rainfall by 2080 (pages 45–46). Website: http://www.metoffice.gov.uk/research/hadleycentre/pubs/brochures/2005/climate_greenhouse.pdf

⁸ The intensity and duration of tropical storms has increased and is strongly correlated with sea-surface temperature. As the climate warms, evidence suggests that the intensity of storms including those starting in the north-west Atlantic will increase. Page 37, Met Office (2005) ‘*Climate Change and the Greenhouse Effect. A briefing from the Hadley Centre.*’

⁹ All climate models predict a rise in global average temperature by 2100 of 1.5–6 Celsius. Met Office (2005) ‘*Climate Change and the Greenhouse Effect. A briefing from the Hadley Centre.*’ and what feels like a warm summer now, will become normal and may feel like a cool summer

by 2060. "Heatwaves like 2003 in Europe, when 35,000 people died and agricultural losses reached \$15 billion, will be commonplace by the middle of the century." Chapter 5, page 122, Stern Review (2006) on the *Economics of Climate Change*. See: http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/sternreview_in dex.cfm

¹⁰ The predictions for sea level rise this century are very variable, ranging from 10 centimetres in low climate sensitivity models to 90 centimetres. Under the medium-high emissions scenario, storm surges on Wealden's coast are predicted to be about 60 centimetres higher, including a predicted 30 centimetre sea level rise. Met Office (2005) '*Climate Change and the Greenhouse Effect. A briefing from the Hadley Centre.*' Pages 49–50. Website: http://www.metoffice.gov.uk/research/hadleycentre/pubs/brochures/2005/climate_greenhouse.pdf

¹¹ From page of *Financial Risks of Climate Change*. Association of British Insurers (2005). Website: http://www.abi.org.uk/Display/File/Child/552/Financial_Risks_of_Climate_Change.pdf "If climate change increases both average losses and insurers' capital requirements, risk premiums could increase. Under the high emissions scenario, and ignoring socio-economic effects, an increase in the aggregate risk premium of 80% might occur for both US hurricane and Japanese typhoon insurance markets by the 2080s. The possible wind-related increase in the aggregate risk premium for European storm would be smaller at 15%, but likely to be higher if flood-related damages and possible impacts on less severe storms were included."

¹² UK Climate Impacts Programme (2003) *Climate change and local communities - How prepared are you?* PDF at: http://www.ukcip.org.uk/resources/publications/documents/Local_authority.pdf

¹³ From page 15 of Inter-governmental Panel on Climate Change (2001) *Synthesis report Climate Change 2001*. Website: <http://www.ipcc.ch/pub/un/syren/spm.pdf>. "During the 21st Century, higher (increasing) minimum temperatures, fewer cold days, frost days and cold waves over nearly all land areas [are] very likely [to produce the following as a representative example of projected impacts in some areas]: Decreased cold-related human morbidity and mortality. Decreased risk of damage to a number of crops, and increased risk to others. Extended range and activity of some pest and disease vectors. Reduced heating energy demand."

¹⁴ Road surface melting, train track buckling, road blockages following extreme events. Crawley Borough Council's report '*Crawley and Climate Change. The Impacts and Opportunities. Preparing for the Future.*') PDF at:

http://www.crawley.gov.uk/stellent/idcplg?IdcService=GET_FILE&dDocName=INT010705&RevisionSelectionMethod=LatestReleased&Rendition=Web. Crawley BC's climate change page is: http://www.crawley.gov.uk/stellent/idcplg?IdcService=SS_GET_PAGE&nodId=292

¹⁵ Crawley Borough Council's report '*Crawley and Climate Change. The Impacts and Opportunities. Preparing for the Future.*') PDF at:

http://www.crawley.gov.uk/stellent/idcplg?IdcService=GET_FILE&dDocName=INT010705&RevisionSelectionMethod=LatestReleased&Rendition=Web. Crawley BC's climate change page is: http://www.crawley.gov.uk/stellent/idcplg?IdcService=SS_GET_PAGE&nodId=292

¹⁶ Risk Management Solutions' report: RMS U.K. *Floods, October 13-14, 2000 Examination of U.K. Flood Damage During Increased Rainfall in October 2000*. PDF at:

http://www.rms.com/Publications/UKFLOODS_OCT13-14.pdf

¹⁷ Lewes District Council data (draft Climate Change Strategy)

<http://www.lewes.gov.uk/environment/8261.asp>

¹⁸ Environment Agency *Drought Prospects* report

http://www.geo.uio.no/edc/downloads/uk_drought_prospects_2006_august_update_aug2006.pdf

¹⁹ In a survey commissioned by Wealden LSP, more participants identified 'a clean and healthy environment' among the two or three important aspects in making somewhere a good place to live than other aspects on a list of key factors

²⁰ United Nations Framework Convention on Climate Change website <http://unfccc.int/>

²¹ Climate Change Bill and *Climate Change. The UK Programme 2006* with links and other information on Defra's climate change webpages:

<http://www.defra.gov.uk/environment/climatechange/>

²² This is the 2005 percentage of 'end user' emissions published by Defra at:

<http://www.defra.gov.uk/environment/statistics/globalatmos/kf/gakf07.htm>. 'End user' means that emissions from power stations have been divided among the different sectors in proportion to each sector's use of electricity.

²³ Department for Trade and Industry (2002). *Energy Consumption in the United Kingdom*. Available from: <http://www.berr.gov.uk/files/file11250.pdf>

²⁴ For information on the Building Regulations and the 'Code for Sustainable Homes' see: <http://www.planningportal.gov.uk/>

²⁵ South East Climate Change Partnership. *Rising to the Challenge – Impacts of Climate Change in the 21st Century*. Available at: http://www.climatesoutheast.org.uk/downloads/RTC_Summary_Document.pdf

²⁶ South East Climate Change Partnership. *Rising to the Challenge – Impacts of Climate Change in the 21st Century*. Available at: http://www.climatesoutheast.org.uk/downloads/RTC_Summary_Document.pdf

²⁷ South East Climate Change Partnership. *Rising to the Challenge – Impacts of Climate Change in the 21st Century*. Available at: http://www.climatesoutheast.org.uk/downloads/RTC_Summary_Document.pdf

²⁸ See www.biodiversitysussex.org, <http://www.defra.gov.uk/wildlife-countryside/climatechange/nature/> and <http://www.naturalengland.org.uk/research/climate-energy/default.htm> for further information.

²⁹ This refers to 'end user' emissions. 'End user' means that emissions from power stations have been divided among the different sectors in proportion to each sector's use of electricity. For more information, see the Defra (2007) paper *2005 Experimental Statistics on Carbon Dioxide emissions at Local Authority and Regional Level*: <http://www.defra.gov.uk/environment/statistics/globalatmos/download/regionalrpt/local-regionalco2statssumm.pdf> and the 2005 data spreadsheets: <http://www.defra.gov.uk/environment/statistics/globalatmos/download/regionalrpt/local-regionalco2emissions2005.xls>