Coventry City Council

7.2.2
Public report

Report to

Scrutiny Board 3	5th March 2008
Cabinet	11th March 2008
Council	18th March 2008

Report of
Director of City Services

Title
Climate Change – A Strategy for Coventry

1 Purpose of the Report

1.1 To outline Coventry's approach to climate change and to present the post consultation Climate Change Strategy for consideration.

2 Recommendations

Cabinet is asked to:

2.1 Recommend to Council that it approves Coventry's Climate Change Strategy attached as appendix A.

2.2 Approve the specific short-term actions for 2008/09.

2.3 Request that the Director of City Services brings forward a further report, which sets out the detail of the Climate Change Act, once enacted, and its implications for both Coventry and the city's proposed Climate Change Strategy.

2.4 Consider any other recommendations made as a result of this report being considered by Scrutiny Board 3 at its meeting on 5th March 2008.

2.5 Note that the Cabinet Member for Climate Change, Housing and Sustainability is to receive regular performance updates on the progress being made against the action plan.

2.6 Note the responses from the consultation exercise attached as appendix B.

3 Introduction

3.1 Coventry has signalled its intent to prioritise the issue of climate change by signing the Nottingham Declaration on Climate Change in October 2006. This declaration commits the Council to work to deliver the UK Climate Change Programme, within two years to deliver a

plan to tackle the causes of climate change with our community and to reduce the Council's greenhouse gas emissions.

3.2 In June 2007, the City Council took the innovative step of creating a dedicated cabinet member portfolio for Climate Change, Housing and Sustainability, to provide enhanced leadership, raise the profile and to recognise the increasing local, national and global need for concerted action on climate change. There is now a ready acceptance throughout the Council of the role it must play as community leader, major employer, property manager and service provider.

3.3 There is equal recognition that tackling climate change is a long-term, multi-agency, community centred challenge and is the reason why the Coventry Partnership, supported by the City Council, has drafted the City's Climate Change Strategy, covering the period 2008 to 2050. This strategy has been the subject of extensive consultation and the proposed final version is now before Cabinet and Council for consideration.

3.4 The need to proactively tackle climate change is also being recognised by others including Government, the UN's Intergovernmental Panel on Climate Change and the Local Government Association. A Climate Change Bill was published in March 2007, which is likely to be enacted in the summer. The main components of the bill are:

- To give statutory force to the government's targets for cutting emissions by 60% by 2050 and 26% - 32% by 2020, compared to a 1990 baseline.
- To introduce a system of five-year carbon budgets
- To create an expert committee on climate change to advise Government.
- To allow provision for Councils to pilot schemes surrounding waste minimisation and recycling.

The Bill also reaffirms the leadership role that Councils are to play on climate change.

3.5 In addition, the Local Government Association's Climate Change Commission produced a report in November 2007 entitled "A Climate of Change". The main findings of this report are:

- Government must use the legislative programme to strengthen local government's statutory underpinning for action on climate change

- Local government to demonstrate a significant and measurable improvement in its response to climate change

- All Local Area Agreements (LAAs) to carry targets to reduce carbon emissions and tackle adaptation applicable to all public bodies in their area

- Government to monitor which LAAs contain climate change targets and challenge those that do not

- Council Leader and Chief Executive of each council to be jointly accountable for action on climate change and achievement of targets

- All councils to have signed the Nottingham Declaration by December 2008.

3.6 At a more local level, the Council has included "making the city clean, green and work to tackle climate change" as one of its corporate objectives since June 2007. More recently, the Sustainable Communities Strategy, which also appears on this cabinet agenda and

charts the future direction of the city for the next 20 years, prioritises climate change as one of only two underpinning priority themes, recognising the centrality of tackling climate change to Coventry's future prosperity.

3.7 There is little doubt that tackling climate change is now a priority for the city and the council.

4 Strategic context

4.1 Climate change is happening. It is now accepted as scientific fact that CO_2 levels have risen by 35% since the industrial revolution and that the last 100 years have seen a 0.74°C rise in temperature.

4.2 The UN's Intergovernmental Panel on Climate Change latest report states that it is 90% likely that human activity is causing the planet's climate to change (IPCC Synthesis Report 2007).

4.3 The signing of the Nottingham Declaration on Climate Change in October 2006 required the Council to commit to a number of actions, including the development of a plan to address the causes and impacts of climate change. The climate change strategy appended to this report represents Coventry's fulfilment of this obligation.

4.4 At a national level, a review was commissioned by HM Treasury and established under Sir Nicholas Stern to examine the economic case for taking action to tackle climate change. Stern reported his findings in Autumn 2006 and made the economic case for addressing climate change sooner rather than later, proving comprehensively that tackling climate change is a pro-growth strategy.

4.5 Members will note that elsewhere on this agenda is a report from the Director of City Development outlining Coventry's draft Economic Development Strategy. The draft Climate Change Strategy and the draft Economic Development Strategy are complementary and not mutually exclusive and demonstrate the Council's commitment to sustainable economic growth - increasing Coventry's prosperity and economic wellbeing whilst also addressing the environmental challenges facing us all.

4.6 It is also appropriate to outline the increasing national profile that climate change is attracting. In addition to the above, the recently published National Indicator (NI) set for local authorities and local authority partnerships lists 198 national indicators against which their performance will be measured. This includes three specific indicators surrounding climate change. These three indicators deal with reducing CO_2 emissions for local authority operations, reducing CO_2 emissions per capita and adapting to climate change.

4.7 Negotiations with Government Office are currently underway as to precisely which indicators will be included in the Local Area Agreement, although at the time of writing it is intended to include all three climate change related indicators. No national targets have yet been set but the following table explains how the NIs will be measured and how good performance will be recognised.

Indicator	Method of measurement	Good performance
NI 185 CO_2 reduction from Local Authority operations:	Council required to calculate its own emissions from analysis of energy/fuel bills and outsourced services to produce a figure covering carbon emissions from operations directly within its control. 2008-09 will be the baseline.	High percentage reduction against the 2008-09 baseline
NI 186 Per capita CO_2 emissions in the LA area	Information is already compiled by Government agency to capture carbon emission data from the business & public sector, domestic housing and road transport (not motorways). 2005 data will be the baseline.	High CO_2 reduction percentage per capita (Government guide is approx. 3% per annum is achievable)
NI 188 Adapting to climate change	Council will report its performance as level 0 to level 4 depending on progress in assessing and managing climate risks and opportunities.	To have achieved all stages on time and to quality standards.

5 Coventry's Climate Change Strategy

5.1 The proposed Climate Change Strategy is attached as appendix A.

5.2 The proposed strategy sets out a target for reducing carbon dioxide emissions by **70%** by the year **2050**, using 2003 as the baseline year, with an interim target of **40%** by the year **2025**. It should be noted that progress against the longer term targets will not be linear, given the varying impact of new technologies, market forces surrounding increasingly scarce natural resources and the impact of additional infrastructure investment. However, as a rule of thumb, a year-on-year reduction of 3% will deliver the required long-term reductions in carbon dioxide emissions. The five-year carbon budgets mentioned at 3.4 above are another mechanism that can be used to guide our progress towards these longer term goals.

5.3 The Climate Change Strategy reflects this short-term and long-term approach, with a number of short-term actions established for 2008/9 sitting alongside longer-term research, evaluation and policy-led actions to inform medium-term plans.

5.4 The proposed strategy sets out six key themes, which are described below.

No.	Theme	Brief description of aims
1	**Putting people first**	o Protect those people who are vulnerable to the effects of climate change o Encourage sustainable communities o Help people to work together at a neighbourhood level on a range of actions

No.	Theme	Brief description of aims
2	**Where we live**	o The promotion of energy efficiency and making buildings more sustainable o Reducing flood risk across the city o Developing sustainable urban drainage
3	**Making a difference**	o Ensure climate change and sustainability awareness is embedded within the education and training sector as well as within the Council and Coventry Partnership o Help businesses prepare for and make the most of the emerging environmental technology sector in the city and region o Ensure that the education sector moves to a low-carbon method of working
4	**Fit for the future**	o Green the city by planting more trees and installing green roofs where possible o Ensure vulnerable groups in the community are protected from the effects of climate change such as poor air quality, heatwaves and flood risk o Promote fitness and mobility by encouraging people to use alternative means of transport to the car
5	**Gearing up**	o Promote the use of more sustainable and low carbon methods of transport such as walking, cycling, car sharing and the use of public transport o Examine what infrastructure changes are required to work towards decarbonising transport o Consider and analyse the risk of damage to transport infrastructure as a result of climate change
6	**Towards a sustainable city**	o Encouraging efficient use of resources from local sources where possible o Promoting the preservation and enjoyment of green space in the city o Making the link with other environmental improvements like air quality and contaminated land management

5.5 The Climate Change Strategy sets out a framework to respond to this unique challenge. The actions set out below, and in more detail in the proposed strategy, represent a framework by which Coventry can respond.

5.6 The consultation process on the draft Climate Change Strategy demonstrated overwhelming support for the strategy. An analysis of the feedback from the consultation process is attached at appendix B.

5.7 Scrutiny Board 4 met on the 11th January and 6th February to consider the health and well-being aspects of the strategy and provided feedback dealing with partnership working, accountability and engagement. Their recommendations are attached as appendix C.

5.8 Whilst sixty-one individual actions are set out in the strategy, they can broadly be differentiated into those actions that are shorter term, more immediate and deliverable and those that explore long-term issues and prepare the City for its challenge of tackling climate change. Inevitably, the longer-term challenges are more policy and research based, whilst the shorter-term challenges are more action based. A summary of the **key deliverables** for the 2008/09 is set out below. All of these activities are funded from existing budget provision in 2008/09.

Key deliverable	Details
Building Schools for the Future	A £300 million scheme to replace or refurbish schools in the city presenting a unique opportunity to make an impact on CO_2 emissions from schools, which are responsible for 36% of the Council's carbon footprint. Early involvement with the contract specification process should enable significant carbon savings to be realised over the lifetime of the school
Planet Pledge	Helping people to change their behaviour: we will establish a scheme where people are asked to sign up to a Planet Pledge where they commit to a series of actions from a menu of options that will reduce their carbon footprint and improve the sustainability of their lifestyles
Tree planting scheme	A plan to 'green' the city through an ambitious programme of tree planting, in which 10,000 new trees will be planted in the city during 2008/09. These trees could capture around 7,500 tonnes of carbon dioxide over their one hundred year lifetime balancing the greenhouse gas contributions of the activities of 1,000 residents.
Business advice service	Provide a business advice service to firms on how climate change will affect their business, how to audit their carbon emissions, what measures they can take to reduce its effects, become climate-proofed and actively seek out opportunities in the emerging new low carbon technology sector.
Eco-living advice to householders	To work with communities in their neighbourhoods to support action towards more sustainable patterns of work, travel and lifestyle. Such work aims to bring together residents, schools, businesses and relevant service providers towards the development of carbon neutral neighbourhoods.

6 Implementing the Strategy

6.1 The delivery of this strategy requires a multi-track and integrated approach to be taken which incorporates:

- o Community leadership and campaigning.
- o Short term delivery of actions
- o Long term strategic planning

Officers have given careful consideration to the potential delivery obstacles and set out below are the key building blocks, which are currently being assembled to ensure delivery of this strategy.

Leadership and Governance

6.2 The Council is demonstrating leadership on climate change, together with the Environment Theme Group of the Coventry Partnership which has jointly overseen the strategy's development.

6.3 To allow for increased profile and focus on the climate change agenda, it is further proposed to establish a dedicated Climate Change Sub-Group of the Coventry Partnership Environment Theme Group. This sub-group will bring together community leaders, key council officers, academics, environmental activists alongside other partner agencies to both performance manage and continually appraise and review the Climate Change Strategy. Attached as appendix D is suggested membership of the proposed group.

Organisational Capacity

6.4 To date, the Climate Change Strategy has been developed by a relatively small team situated within Environmental Health. Environmental Health forms part of the newly created Street Services and Public Protection division. This division is currently undergoing restructuring and whilst at the time of writing this report, proposals are still being formulated, the resourcing challenges of this increasingly important area of the Council's activities are recognised. One of the objectives of the divisional restructuring will be to create a dedicated Sustainability and Climate Change Unit to ensure that the challenges ahead can be effectively embraced. This refocused team is intended to constitute a cohesive unit bringing together the various disciplines required to tackle the challenge of climate change corporately.

6.5 This new team will be brought together in the very near future and will include skills and capacity for carbon auditing. The carbon auditors will advise Council departments, partners and businesses on methods of reducing their carbon footprint.

7 Summary and Conclusion

7.1 Climate change is real, is happening and is one of the most significant long-term challenges facing Coventry.

7.2 The Climate Change Strategy currently before Members provides a framework to respond to this ever-increasing challenge.

7.3 This Strategy sets out both short and long-term actions, recognising that this strategy is about taking steps now, whilst also planning and preparing for technological changes and changing social attitudes over the longer term

7.4 This report sets out how the Council, together with partners, will deliver both the intentions and actions within the strategy and put in place a performance management and monitoring framework to allow progress to be tracked.

7.5 The enactment of the Climate Change Bill will impact upon this Strategy, especially as details around proposals such as the carbon emissions trading scheme become clearer and as such, further reports will be brought forward for Members' consideration at the appropriate time.

8 Other specific implications

	Implications (See below)	No Implications
Best Value		X
Children and Young People	X	
Climate Change & Sustainable Development	X	
Comparable Benchmark Data	X	
Corporate Parenting		X
Coventry Community Plan	X	
Crime and Disorder		X
Equal Opportunities	X	
Finance	X	
Health and Safety	X	
Human Resources	X	
Human Rights Act		X
Impact on Partner Organisations	X	
Information and Communications Technology	X	
Legal Implications	X	
Neighbourhood Management		
Property Implications	X	

	Implications (See below)	No Implications
Race Equality Scheme		X
Risk Management	X	
Trade Union Consultation	X	
Voluntary Sector – The Coventry Compact	X	

8.1 **Best Value/VFM**

Many of the actions required to reduce CO_2 emissions revolve around the more efficient use of energy and fuel. Reductions in their use and improvements in efficiency will deliver against some of the key aims of Best Value and dialogue has been established with colleagues in the VFM team.

8.2 **Children and Young People**

The timescale for the realisation of the effects of climate change, and over which we must take action, is decades and so it is crucial that we engage children and young people in the debate and the action plan. To this end we have worked with Coventry Youth Council and will be approaching the Childrens' Strategic Partnership for their input to the Strategy and will ensure they are involved through implementation of the action plan. Climate change issues are also covered in the Eco-schools work within the city.

8.3 **Climate Change and Sustainable Development**

This report and the attached strategy constitutes the City Council's major contribution to tackling climate change and brings together the best practice thinking on addressing the issue and sets targets for years to come. Addressing climate change is key to any consideration of sustainable development such that there is now enormous overlap of the two strategies globally and locally

8.4 **Coventry Community Plan**

Soon to be renamed the Sustainable Communities Strategy, this document covers the work carried out by the Coventry Partnership in conjunction with the City Council. Work is already ongoing with the Partnership as it will be a key partner in delivering the actions within the Strategy as well as assisting in the leadership role which the City Council needs to adopt.

8.5 **Equal Opportunities**

Climate change impacts will affect all sectors of the community and it is vital that everyone has an equal chance to comment on the Strategy and potentially to be involved in the actions required. Providing equal access to information and to the consultation process is one of the key elements to be addressed in the communications plan for the Strategy.

8.6 **Finance**

The short-term actions identified in this strategy as being the responsibility of Coventry City Council are all funded. In most cases this is because budgets or project funding for the specific action has already been identified. Many of the actions are funded through specific funding streams (e.g. Building Schools for the Future) and reflect the way in which climate change needs to become an integral part of the whole range of City Council business.

Beyond 2008/09, the actions contained in this report, and further actions that will be identified in future, will have potentially significant financial implications for the Council.

These implications will need to be considered in the annual budget setting processes, and will become a further dimension in the overall process of allocating scarce resources across the range of Council priorities. Inevitably, if the Council channels resources into its priority for climate change, it will have less resource available for other potential projects and initiatives.

It is too early at this stage to identify the overall potential cost of delivering targets in the strategy of cutting emissions by 70% by 2050, and 40% by 2025.

Progress on the strategy will need to be monitored on an annual basis to inform the City Council's overall resource allocation decisions as it moves towards delivering this long-term objective.

8.7 **Health and Safety**

Some of the issues around theme 4: Fit for the Future relate to the occupational health of City Council employees and schoolchildren during extremes of weather. Close liaison with colleague in CLYP and Corporate Health & Safety will be maintained as the actions against these themes are fleshed out.

8.8 **Human resources**

Some of the proposed actions for the City Council will have HR implications such as exploring the feasibility of flexible working and possible changes in working conditions and practices as part of the mitigation and adaptation actions.

8.9 **Impact on Partner Organisations**

The City Council has a clear leadership role in tackling climate change and the support of partner organisations will be crucial in this endeavour. Partner organisations will be fully involved in the implementation of the action plan ensuring they can effectively contribute.

8.10 **Information and Communications Technology**

ICT plays a large role in tackling climate change both positively by allowing for more flexible working and reduced resource use but also negatively by requiring energy to power and cool equipment.

8.11 **Legal Implications**

The Climate Change Bill is expected to become law later this year. It is likely to set binding targets for carbon emissions over a five year basis. The Director of City Services will bring a further report to Cabinet when the provisions of this legislation are more fully known.

8.12 **Property Implications**

The building, refurbishment, use and maintenance of property is a large contributor to carbon emissions and so colleagues in Property and Portfolio Management have been involved in the consultation for the Strategy. In addition, the growth agenda for the City Council will provide opportunities to have an input to the carbon emission potential of new developments in the city.

8.13 **Risk Management**

Climate change appears on the Corporate Risk Register and colleagues within Risk Management have been active in addressing the challenges it prevents. Several of the actions proposed within the Strategy are to be pursued by Risk Management and a productive dialogue will be maintained.

8.14 **Trade Union Consultation**

The outline of the Strategy was presented to the TU Core Group at an early stage and a close involvement with this group is envisaged as implementation of the action plan progresses.

8.15 **Voluntary Sector**

The input of the voluntary sector will be important in carrying the Strategy forward in the city. Close involvement with the Coventry Partnership is the key means by which a productive involvement will be maintained and presentations eliciting useful feedback have been delivered to the Community Empowerment Network, Friends of the Earth and Warwickshire Wildlife Trust.

9 Monitoring

The long-term nature of these targets is supported by the annual cycle of monitoring and reporting outlined in the draft Strategy. It is proposed that the Action Plan will be reviewed and renewed annually, with parallel reporting procedures embedded in the City Council's political process and the Coventry Partnership Board agenda.

In addition, the National Indicators relating to climate change, referred to in paragraph 4.7 will be monitored as part of the Council's performance monitoring arrangements. Individual actions set out in the strategy will be closely monitored to assess overall performance and their contribution to the long-term emission reduction targets.

It is furthermore proposed that half-yearly performance update reports are presented to the Cabinet Member for Climate Change, Housing and Sustainability and no less than annually, a formal monitoring report is submitted to the Cabinet Member, which sets out the progress made in the previous year and charts the key actions and deliverables for the following year. This is considered necessary and appropriate given the pace of changing technological and policy developments in this area.

10 Timescale and expected outcomes

Upon approval of the Strategy and action plan it is intended to commence the action plan in April and begin dialogue with colleagues in the Coventry Partnership and in appropriate directorates to ensure an effective start to the action plan.

11 Appendices

Appendix A: Proposed Climate Change Strategy for Coventry.
Appendix B: Summary of feedback following consultation exercise
Appendix C: Recommendations and feedback from Scrutiny Board 4
Appendix D: Proposed membership of the Coventry Partnership's Climate Change Sub-Group.

	Yes	No
Key Decision	√	
Scrutiny Consideration (if yes, which Scrutiny meeting and date)	**SB 4: 6th February 2008 SB 3: 5th March 2008**	
Council Consideration (if yes, date of Council meeting)	**18th March 2008**	

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Rebecca Young, Regeneration Services, CDD, x3776

Papers open to Public Inspection

Description of paper	**Location**

Report Appendices

A: A Climate Change Strategy for Coventry

B: Summary of consultation responses

C: Recommendations and feedback from Scrutiny Board (4), 6th February, 2008

D: Proposed membership of Coventry Partnership's Climate Change Sub-group

A: A Climate Change Strategy for Coventry

Report Appendix A

Draft Climate Change Strategy for Coventry

February 2008

A DRAFT CLIMATE CHANGE STRATEGY FOR COVENTRY

CONTENTS

FOREWORD

It's difficult to imagine that the world that we all take for granted can be affected by our day-to-day actions and yet that is exactly what is happening. Our dependence on fossil fuel is immense and threatens not only our planet's fragile eco-system but also the sustainability of our way of life.

The planet's annual oil consumption in 1950 would last just six weeks in today's world and if we continue to emit carbon at the present rate then our planet could face temperature rises of up to 5°C, spelling disaster for both humanity and our planet.

We all have to face up to the threat from climate change and this strategy sets out a bold vision of a sustainable future and how that can be brought about. We will set a challenging target for the reduction of our carbon footprint by 70%, we will introduce a range of innovative solutions and we will work with our partners who are critical to the success of this project.

Gary Ridley

Councillor Gary Ridley
Cabinet Member for Climate Change, Housing & Sustainability

The results of scientific studies worldwide make an overwhelming case for climate change. It is thought by many to present the biggest threat to life and modern lifestyles on our planet and the predicted disastrous effects of what will happen if we do nothing about it are well documented.

It is an issue that affects us all but there are positive changes which we can all make across our cities, schools, hospitals and even our homes as 40 per cent of CO_2 emissions in the UK come directly from what we do as individuals – for example, heating and using electricity and driving vehicles.

But although we can all make a difference individually, it is vital that we act with all our partners if we are to tackle this monumental issue and this strategy will help us to achieve that. We need to take action now for the people that we shall never meet or know as if we do nothing the impact will be felt for many generations to come.

L. Ratcliffe

Les Ratcliffe
Chair of Coventry Partnership

EXECUTIVE SUMMARY

- It is now widely accepted that climate change is happening: all five of the hottest ever years have taken place in the last decade, mountain glaciers are retreating, the permafrost in some areas is melting – the list of impacts is long and well publicised. Some of the global impacts include effects on crop yields and water supply, rising sea levels and prolonged drought. This is already leading to global human migration and may well ultimately lead to conflict over resources.

- In the UK and in Coventry, the noticeable effects of climate change will be milder, wetter winters, hotter, drier summers, and increased frequency and intensity of extreme weather events such as storms, winds and heatwaves. It is clear that we have to take action now – there is no choice.

- The UK is the seventh largest emitter of greenhouse gases with 2.3% of the total, with countries like the USA (20%) and China (15%) well ahead of us. In tonnes of carbon equivalent per person, the UK produces 9.4 tonnes per person, compared to China's 3.2 tonnes (and the USA's 19.8 tonnes). This highlights our responsibility as individuals, not just as a nation, to reduce our contribution to global climate change.

- As a city Coventry emitted around 2 million tonnes of carbon dioxide in 2003 of which the City Council's operations contributed around 60,000 tonnes. This represents around 2% of the total, and although this is a small proportion, the Council's ability to demonstrate leadership reducing this proportion is important to the city.

- The city has highlighted tackling climate change as one of its most important priorities in its Sustainable Communities Strategy (SCS). The SCS sets the future direction of the city up to 2026. Climate change is also profiled in the Local Area Agreement, which is the city's three-year plan up until 2012.

- The City Council has a crucial role in tackling climate change as community leader, property manager and service provider; a role recognised by the Local Government Association and the UK Climate Impacts Programme as being pivotal to successfully addressing the causes and effects of climate change.

- The Stern Review published in October 2006, took a global economic view and calculated that the cost of taking action now and cutting emissions towards the desired stabilisation goal of between 450 and 550 parts per million (ppm) CO_2e as being the equivalent of 1% GDP. The Review concluded that this cost is substantially lower than that of dealing with the consequences of the "business as usual" scenario, which is calculated at between 5% and up to 20% of GDP per annum. There are strong economic arguments as well as environmental reasons for tackling climate change.

- Stern also recognised the economic benefits of moving towards a low carbon economy, with increased energy security and new opportunities for business. This is very much the case for Coventry where a wealth of manufacturing and engineering expertise makes the city well placed to move from its traditional sector of manufacturing to the new environmental technology sector.

- Coventry is already demonstrating clear leadership on tackling climate change which began with the signing of the Nottingham Declaration on Climate Change in October

2006. This committed the City Council to act decisively in its role as community leader to tackle the causes and effects of climate change by producing a strategy and action plan and by working in partnership with the community and businesses to tackle climate change.

- A draft of the strategy was produced and presented to the Council's Cabinet and the Coventry Partnership in September 2007, then went to public consultation until December 2007. During this time the draft strategy and its proposed actions received coverage on regional television, local radio and the local press as well as being taken to Ward Forums throughout the city. Respondents were particularly encouraged to offer their views on the six themes within the Strategy, which represent the key areas where carbon reductions are required.

- In all over 650 comments were received about the six themes proposed with the vast majority of feedback being supportive. Several specific suggestions that emerged from the consultation exercise have been incorporated into this final strategy and associated action plan.

- In total over 1200 individual comments were received during the consultation. There was strong support for the strategy with over 90% of respondents believing that the strategy is either about right or should go further. Nearly 80% of respondents think the Council should show strong leadership on this issue and 60% thought that the proposed reduction target for 2050 should go further.

- These comments have been incorporated into an ambitious action plan for the Council and its key delivery partner, the Coventry Partnership. These actions are set against each theme to be achieved in 2008/09 or as longer-term actions first requiring research or feasibility checking before commencement.

- Since the initial draft strategy was published there have been important developments including the publication of the Climate Change Bill and the announcement of the National Indicator set for local authorities in the UK. The Bill will give statutory force to the Government's targets for reducing emissions, introduce five-year carbon budgets and create an expert committee on climate change that will propose future targets in order to keep emission reduction on track.

- The National Indicator set contains all the indicators against which local authority performance will be assessed in the future. It includes three dedicated climate change indicators out of fourteen in the environmental sustainability theme. These three indicators measure how quickly the local authority reduces its CO_2 emissions, the level of per capita CO_2 emissions in the local authority area and also how well the Council is adapting to climate change.

- The following table summarises the six themes as well as a short description of the actions to be taken in 2008/09 by the community and the council under each heading. The actions in bold represent five key deliverables that have been identified as being significant in galvanising action from key sections of the community such as householders, schools and businesses that will be crucial to the long-term success of the strategy.

Theme	Actions (key deliverables in bold)
Putting people first (Communities and neighbourhoods)	o **Promote a Planet Pledge scheme in Coventry** o **Provide eco-living advice to householders** o Make it easier for people to find out about microgeneration
Where we live (Housing and the built environment)	o Implement City Council policy on use of onsite renewables o Ensure Strategic Flood Risk Assessments are done o Review Sustainable Urban Drainage in city o Check feasibility of an Energy Services Company o Embed climate change advice in major development teams o Ensure major plans & strategies recognise climate change o Jointly build an eco-house to act as educational resource
Making a difference (Education and training)	o **Ensure Building Schools for the Future reduces CO_2** o **Provide climate change advice to businesses** o Review possible CO_2 savings in existing schools o Help firms exploit environmental technology sector opportunities o Make all City Council employees are aware of climate change
Fit for the future (Health and well-being)	o **Green the city by planting 10,000 trees** o Provide timely alerts when air quality becomes poor o Investigate feasibility of green roofs in the city centre
Gearing up (Transport)	o Promote cycling and walking and investigate use of rental bikes o Establish feasibility of two new Park and Ride locations o Assess possibility of replacement of fleet with zero emission vehicles o Develop city council wide Corporate Travel Plan o Continue to develop School Travel Plans
Towards a sustainable city (Living sustainably)	o Analyse aerial thermal survey to direct home insulation grants o Adopt the three new climate change National Indicators o Set up city council carbon hotline to report possible savings o Ensure council directorates' risk analysis includes climate change o Provide annual performance report to Cabinet on strategy progress o Establish Climate Change Sub-group with Coventry Partnership o Produce Waste Strategy for city to assist in CO_2 reduction o Produce a sustainable procurement toolkit o Compile a communications strategy to ensure awareness is raised across the city

o The carbon reduction goals for the city have been amended following consultation feedback and are now:

- A 70% reduction in carbon dioxide emissions between 2003 and 2050
- An interim target of a carbon dioxide reduction of 40% by the year 2025

o This Strategy, supported by its Action Plan, reflects both the council's leadership role across the city, and our ability to work together as a community, engaging with all citizens and sectors in one of the most long-term and crucially important endeavours we will face in the coming decades.

1. INTRODUCTION

1.1. Scientific consensus

"The scientific case for action on climate change is unambiguous. The burning of fossil fuels and deforestation has resulted in CO_2 levels rising by 35% since the industrial revolution. As a result, the climate has warmed by 0.74°C over the past century, with 0.4°C of this warming occurring since the 1970s. This rate of change is unprecedented in human civilization."[1]

The key evidence comes from the extensive collection of temperature records available to scientists – 300 years' worth are available for England – but there is also a great deal of supporting evidence. This includes regional and more local events, such as the Sahel drought of 1972, the drying-up of the Mississippi river in 1988 or the 1976 UK drought. Other evidence can be found in the natural world, with animals and plants extending or shifting their ranges in terms of latitude or altitude.

Both the recent Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (2007) and the Stern Review conclude that the need to act now is imperative: a delay of only five years could have a significant impact on our ability to limit climate change.

1.2. Global impacts

For many people, an increase in temperature of three degrees does not sound significant, but as a global average, it represents the difference between the last ice age and the warm period recorded in the 1700s. The increase in global temperature that we are currently witnessing can be broadly categorised as affecting either our climate (long-term and gradual), or our weather (short-term).

Global warming itself – an increase in global average mean temperature - brings about the most recognisable and well publicised impacts such as reduction in the extent of the polar ice caps, melting of glaciers, and warming of the oceans. These in turn bring about a shift in global precipitation patterns, with an overall trend of increasing rainfall but also, paradoxically, large scale and long-term droughts.

The IPCC (2007) report predicts that sea level will rise by up to 59 cm by the end of this century and as with the other impacts of global climate change, the more vulnerable countries and communities are likely to be worst affected. Figure 1 shows the areas most affected by potential sea level rise – the Asian sub-continent; the countries of south east Asia and coastal Africa are clearly the most vulnerable.

[1] Climate Change Strategic Framework, DEFRA, March 2007

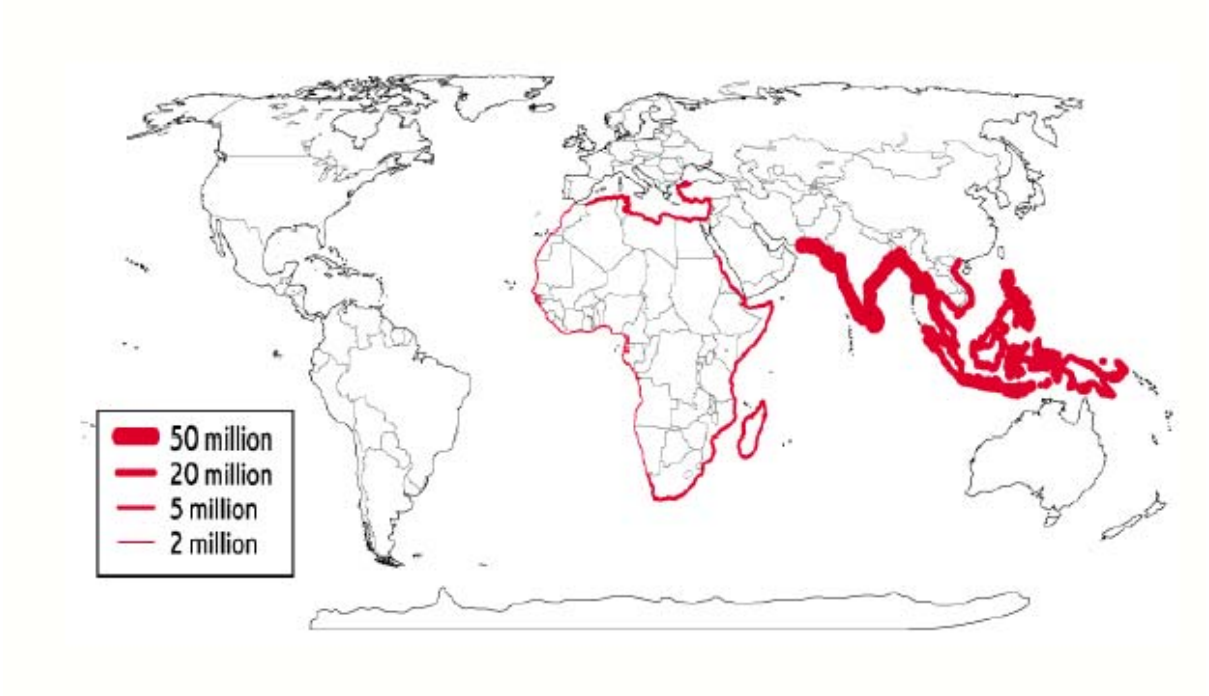

Figure 1: Areas of population most at risk from coastal flooding under a business as usual scenario (DEFRA, 2006)

Developing countries will be most affected in terms of droughts and crop failures, in turn affecting food security. Where these impacts may initially be perceived as confined to individual countries or regions, the inevitable global impact of displaced people should not be ignored. The Stern Review estimates that 200 million people will be driven to move from their homelands as a direct result of climate change.

The second type of impact includes the frequency and intensity of extreme weather events. For example, several countries, including the UK, are experiencing increased intensity of precipitation so that rain and snow tends to fall more heavily and for longer periods. Hurricanes and storms are also showing an increase in intensity and frequency. The hurricanes of 2005 (not least hurricane Katrina) are well publicised, but such events are accompanied by a widespread increase in coastal storms, severe thunderstorms in inland areas, and tornadoes to illustrate the more acute aspects of climate change impacts.

1.3. Impacts in Europe, the UK and Coventry

The UK Climate Impacts Programme (UKCIP) has identified expected climate changes for the UK and its regions. Annual and seasonal averages are expected to show a trend towards warmer, drier summers, milder, wetter winters, and rising sea levels.

Extreme events will include more very hot days, more intense downpours of rain, changes in storm patterns, with a likely increase in winter occurrence, and shorter return periods for high water levels on the coast.

The case of the European heatwave of 2003 illustrates some of the impacts of extreme weather resulting from climate change with 2003 likely to have been the hottest summer since 1500. The heatwave was experienced between May and August, and led to an estimated 35,000 excess deaths across Europe, with 2,000 of these occurring in the UK. Many records were broken, including the hottest temperature on record – 38.5°C - recorded in Kent. Temperatures in the 40s were recorded in European countries. Climate scenarios for future decades indicate that such temperatures will merely be average by the year 2050. Heat related deaths are predicted to increase to around 2,800 cases per year in the UK.

The impacts of such extreme temperatures are clearly more severe in countries and amongst populations that are not adapted. Urban areas in particular are vulnerable, where a lack of natural ventilation in buildings, insufficient green open space and blocks of tall buildings all combine to exacerbate the urban heat island effect. Paris, for example, experienced nine consecutive days where the temperature exceeded 35°C. Even a relatively small and compact city like Coventry will clearly show this heat island effect, with peak temperatures in the central area extending into the more densely built-up neighbourhoods of Foleshill and Stoke.

Extreme heat not only has devastating effects on health and well-being, but also brings economic disruption. The July 2006 heatwave brought about power cuts in peak demand times in London, due at least in part to the increased usage of air conditioning units. This had a significant impact on business continuity, which over the next few decades will inevitably increase and extend to other urban and business centres – unless plans are put in place to adapt.

In terms of other extreme events, flooding and storm damage can also have far-reaching effects on both health and well-being and the economy. Personal and economic loss and stress due to flooding has been shown to lead to an increase in mental health problems in the UK[2].

The economic impacts are clear: insurance claims for flooding and storm damage doubled to £6 billion between 1998 and 2003. The cost of the 2007 floods is estimated at £3 billion. Risk management for climate change is essential for business, especially where the management of land and buildings is involved. Businesses that are not seen to be addressing climate change are increasingly likely to have to pay higher insurance premiums, as insurers identify such clients as high risk.

In the UK, the headline impacts of climate change predict milder, wetter winters, hotter, drier summers, rising sea levels, and increased frequency and intensity of extreme weather events such as storms, winds and heatwaves. It is clear that we have to take action now – there is no choice.

[2] UK Health Impacts of Climate Change, Parliamentary Office of Science and Technology, Postnote number 232, November 2004

Some of the most widely expected adverse impacts (regardless of our mitigation actions set out in this strategy) include:

- Increase in flooding
- Increased pressure on drainage systems
- Possible increased winter storm damage
- Habitat and species loss
- Summer water shortages and low stream flows
- Increased subsidence risk in subsidence-prone areas
- Increasing thermal discomfort in buildings
- Health issues in summer

The UK Climate Impacts Programme has helped to identify where impacts will be experienced at community level:

- Land-use and planning
- Housing and buildings
- Transport
- Waste management
- Energy and utilities
- Water and drainage
- Biodiversity
- Society and lifestyles
- Health
- Economy and business

There are some potential benefits. Many feel that we are at the start of a second industrial revolution, as we explore and develop new technologies to help reduce greenhouse gas emissions – the root cause of climate change. Added to this, developing and diversifying a sustainable energy portfolio will lead to greater energy security and help to tackle fuel poverty.

1.4. Individual contributions

The UK is the seventh largest emitter of greenhouse gases (GHG – see Glossary, Appendix B) with 2.3% of the total, with countries like the USA (20%) and China (15%) well ahead of us. These data do not take population size into account, so in considering our responsibilities, it is useful and perhaps more appropriate to examine per capita emissions. In tonnes of carbon equivalent per person (CO_2e), the UK produces 9.4 tonnes, compared to China's 3.2 tonnes (and the USA's 19.8 tonnes). This highlights our responsibility as individuals, not just as a nation, to reduce our contribution to global climate change.

2. CONTEXT

2.1 The UK Response to the Kyoto Protocol

As part of the international community's response to climate change, the UK became a signatory to the Kyoto Protocol and subsequently agreed with other EU Member States to reduce emissions. The Kyoto Protocol was finally ratified by the appropriate number of signatories and came into force in February 2005. Climate Change: The UK Programme was published in March 2006 and sets out the government's plan for action on climate change, recognising both the domestic and global contexts for this work.

The main focus of the Programme is on mitigation action by all sectors, but adaptation to the effects of climate change is also covered. The Kyoto Protocol target for UK greenhouse gas emissions reduction was 12.5% by 2012, and the UK is well on target to achieve this. A further target set by UK Government was to achieve 20% by that date, but this was not pursued and emissions have started to rise again.

2.2 Stern Review on the Economics of Climate Change

The Stern Review, commissioned by HM Treasury and published in October 2006, took a global economic viewpoint. It concludes that the costs of stabilising the climate are significant but manageable but that delay would be dangerous and much more costly. It calculated the cost of taking action now and cutting emissions towards the desired stabilisation goal of between 450 and 550 parts per million (ppm) CO_2e. This figure, estimated at 1% GDP, is considered to be substantially lower than the cost of dealing with the consequences of the "business as usual" scenario which is calculated to be between 5% and up to 20% of GDP per annum. (Note: 1% of Coventry's GDP has been estimated at £70.5 million per annum).

There are also recognised economic benefits of moving towards a low carbon economy, with increased energy security and new opportunities for business. Indeed it states that action on climate change need not cap the aspirations for growth of rich or poor countries. Figure 2 below details the findings of Stern in terms of carbon dioxide levels in the atmosphere, temperature rise and global impacts.

The review also discusses the economic impacts of inaction, such as a loss in world consumption of at least 5% (and maybe as much as 20%), and major disruption comparable to the great wars and the economic depression of the last century. The humanitarian impacts are far-reaching – droughts, storms and flooding will increase in frequency and intensity, with the worst impacts felt in poorer countries.

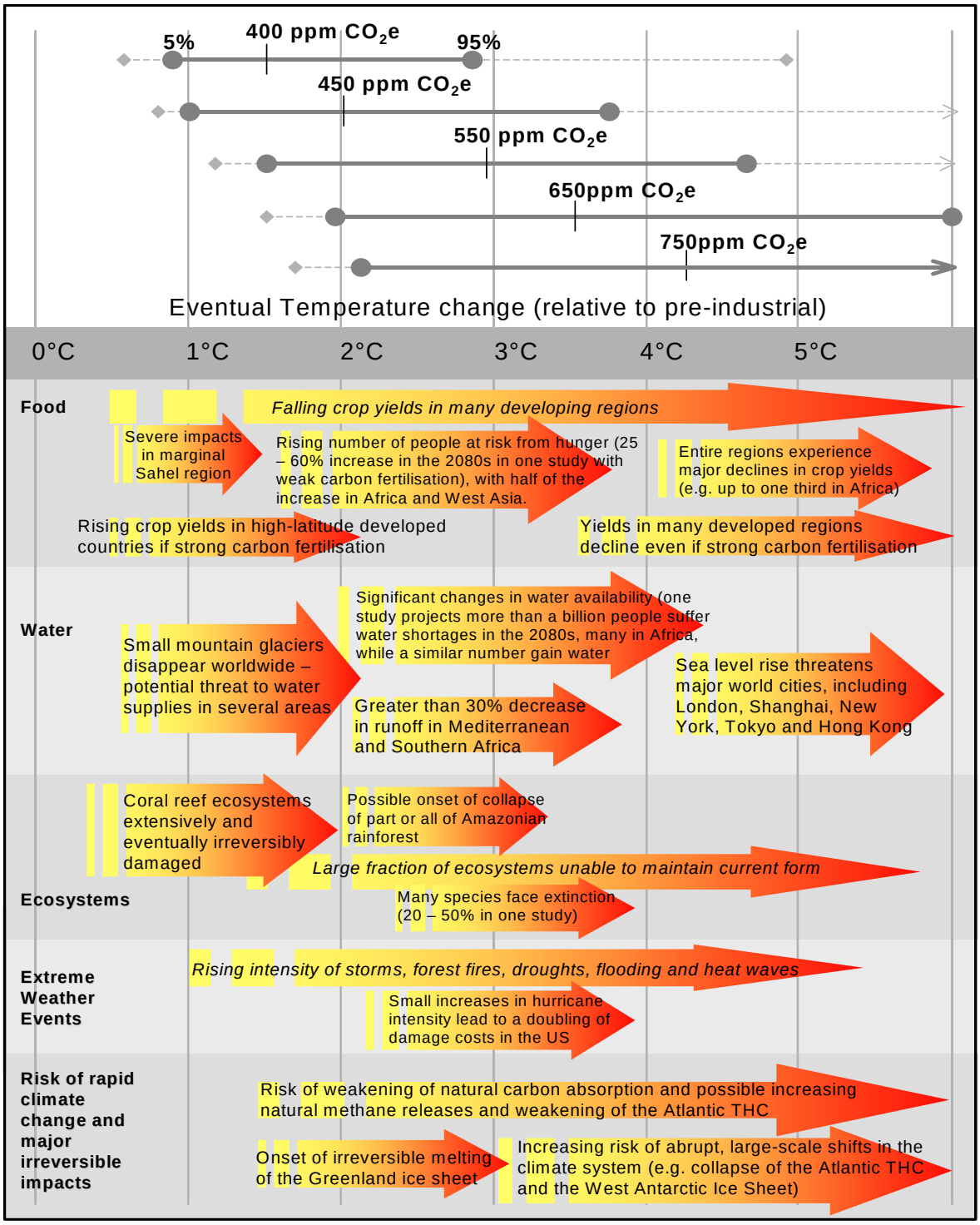

Figure 2: Linkages between carbon dioxide levels in the atmosphere, temperature rises and global effects (courtesy of the Stern Review)

2.3 The Climate Change Bill

The publication of the Climate Change Bill in March 2007 serves to further strengthen the Government's powers in attaining the goal of becoming a low-carbon economy.

The main components of the Bill are:

- To give statutory force to the Government's targets for cutting emissions by 60% by 2050 and 26 – 32% by 2020, compared to a 1990 baseline
- To introduce a system of five-year carbon budgets
- To create and expert committee of climate change to advise Government

"The carbon budgets established in legislation will shape all subsequent policy decisions, ensuring the UK is on track to achieve its 2050 budget" [3]

(It should be noted that the targets set out in the draft Climate Change Bill, published in March 2007, do not include carbon dioxide emissions arising from international aviation or shipping.)

In order to limit global warming to no more than 2°C, reflecting the European Union objective, GHG have to remain well below 550ppm CO_2e. If industrial countries are to take the lead, the consensus opinion is that GHG reduction targets for the UK need to be 30% by 2020 and 60 - 80% by 2050. The draft Climate Change Bill's headline target of 60% by 2050 should thus be regarded as an absolute minimum. Progress in local areas will be monitored through a set of dedicated performance indicators for climate change.

2.4 Local Authority Performance Management

In recognition of the increasing importance attached to local authorities' roles in tackling climate change, the Government has identified fourteen environmental sustainability indicators within the National Indicator Set of the New Performance Framework. The full set of 198 National Indicators (NIs) will be the only ones that councils are measured upon; this system replaces the Comprehensive Performance Assessment (CPA).

Of the 14 environmental sustainability themed NIs there are three that directly relate to climate change:

NI 185	CO_2 reduction from Local Authority operations
NI 186	Per capita CO_2 emissions in the LA area
NI 188	Adapting to climate change

3 DEFRA, Climate Change Strategic Framework, March 2007

There are six other NIs that are key to the move towards a sustainable and low-carbon lifestyle that will help in the delivery of the three key climate change NIs, these are:

NI 187	Tackling fuel poverty – people receiving income based benefits living in homes with a low energy efficiency rating
NI 191	Residual household waste per head
NI 192	Household waste recycled and composted
NI 193	Municipal waste landfilled
NI 194	Level of air quality – reduction in NO_x and primary PM_{10} emissions through local authority's estate and operations
NI 197	Improved local biodiversity - active management of local sites

These six NIs will be addressed through City Council strategies dealing with waste, air quality and Agenda 21. The importance of the links between these strategies and this one are fully acknowledged and joint working has been in train for some time.

All of the 198 NIs will be reported upon for the purposes of the new performance framework but targets will be negotiated through Local Area Agreements (LAAs) wherein up to 35 targets from the list of NIs plus 17 statutory education targets are included.

A local area agreement (LAA) is a three-year agreement between a local area and central government and describes how local priorities will be met by delivering local solutions.

The LAA is negotiated between the local strategic partnership, in this case the Coventry Partnership, and the regional Government Office. The City Council is currently negotiating the LAA on behalf of the Coventry Partnership and at the time of writing it is intended to include all three core climate change indicators in the Coventry LAA. Agreement with Government Office is expected later this year.

2.5 Coventry's Response

Coventry demonstrated clear leadership on tackling climate change by signing the Nottingham Declaration on Climate Change in October 2006. This commits the City Council to act decisively in its role as community leader to tackle the causes and effects of climate change in the following ways:

- Work with central government to contribute locally to the delivery of the UK Climate Change Programme
- Prepare a climate change action plan with the local community
- Declare a commitment to reduce greenhouse gas emissions from its own activities
- Encourage all sectors in the community to also reduce greenhouse gas emissions
- Work with key providers such as the Primary Care Trust to assess the effects of climate change and identify how we can adapt

- Provide opportunities for the development of renewable energy
- Monitor our progress against the plan and publish results

The signed copy of the Nottingham Declaration is shown at figure 3 below.

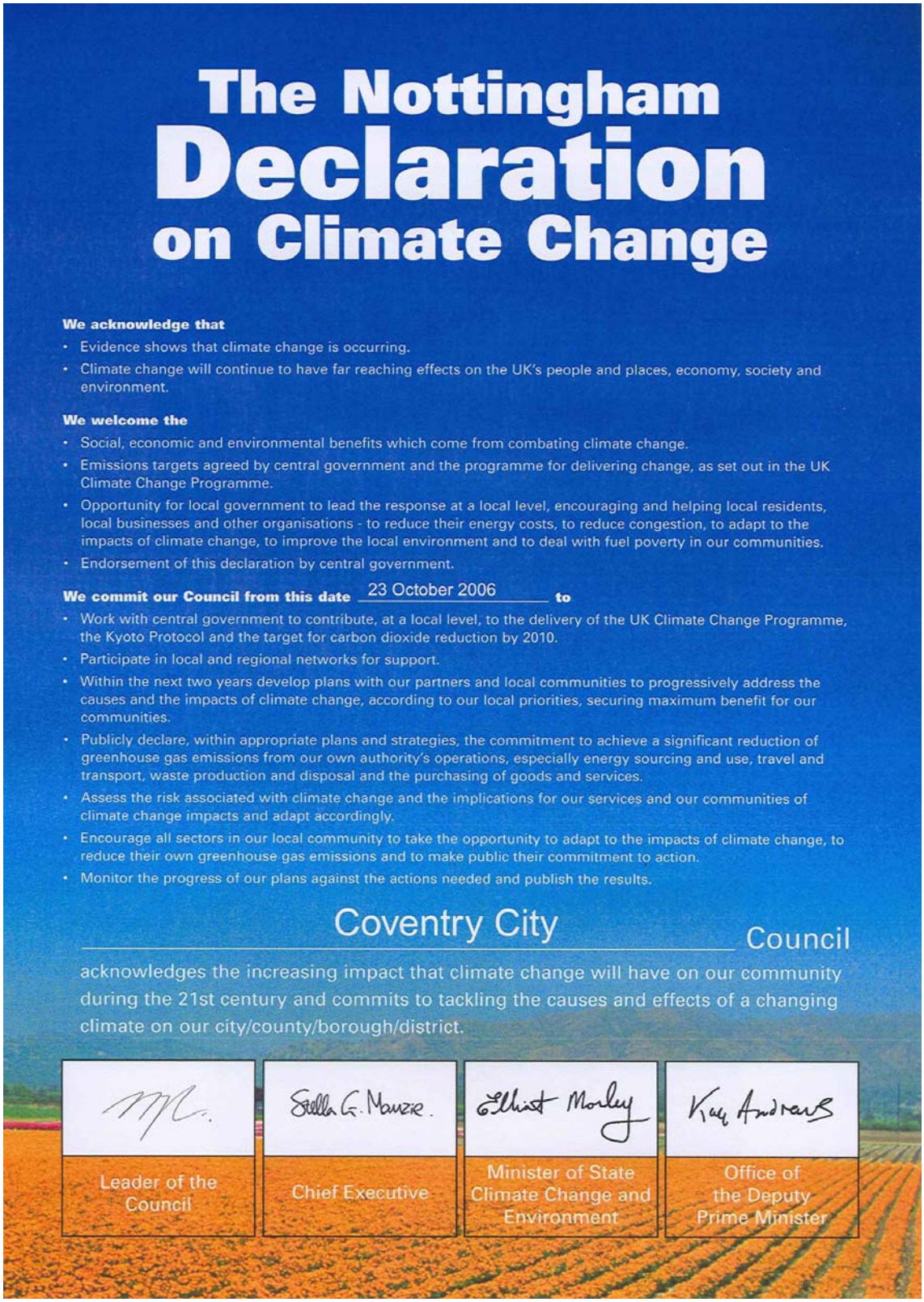

Figure 3: Nottingham Declaration

3. COVENTRY PERSPECTIVE

3.1 Strategic Overview

Coventry City Council has a principal role as community leader for the city and its residents, working towards a better quality of life now and for the future. It was in recognition of this leadership role that the decision was taken in 2006 to sign the Nottingham Declaration on Climate Change.

The City Council is committed to working with its partners to tackle climate change – this is a challenge that can only be met by the council working with all sectors of the economy and all parts of our communities. This strategy is owned by the Coventry Partnership, which will also monitor progress.

3.2 The Coventry Partnership

The City Council and the Coventry Partnership have a working relationship that is recognised nationally and the strength of this partnership is an essential ingredient in tackling climate change. The Sustainable Communities Strategy and other key strategic documents, such as those contained within the Local Development Framework are being developed with tackling climate change as one of their core values. The relationship between the council, the Partnership, and these strategic documents is illustrated in figure 4 below:

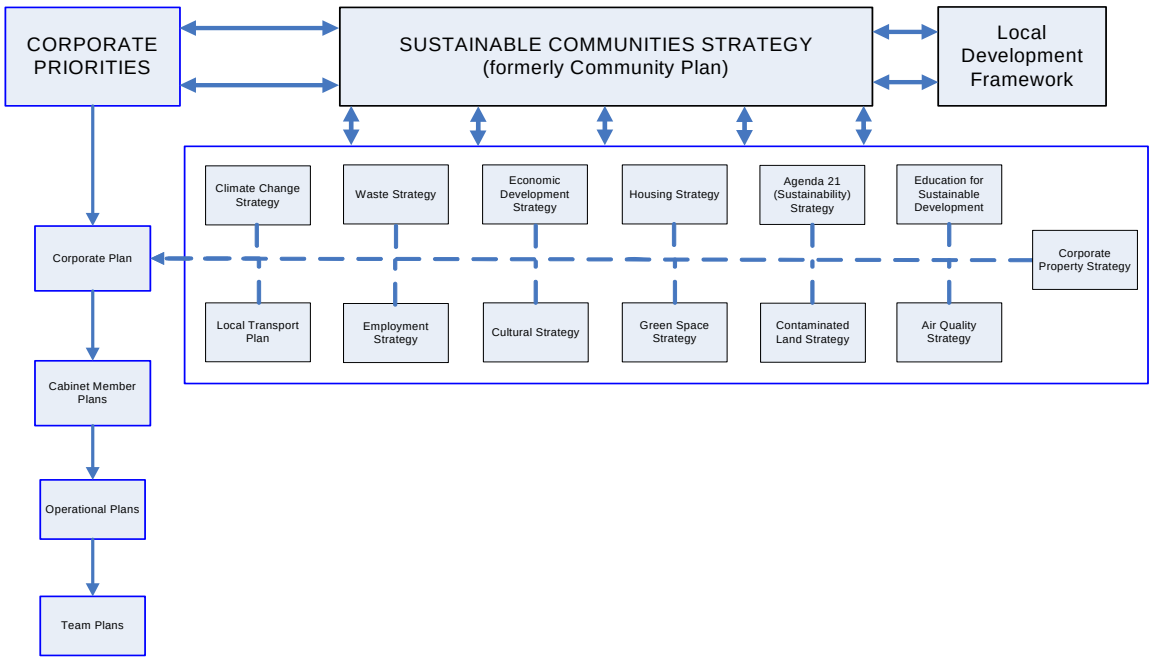

Figure 4: Coventry Partnership and City Council relationship

The Coventry Partnership is a strategic body made up of representatives from all sectors who work together to deliver a vision for the city as outlined in the Sustainable Communities Strategy. The work of the Partnership is supported by a number of Theme Groups, which focus on tackling specialist areas. Each of

these Theme Groups will find that there are particular challenges presented by the impacts of climate change where their expertise can contribute to solutions. A diagram illustrating the links between Theme Groups and adaptation categories can be found at appendix C.

Additionally, the wider community plays a vital role in the challenge of climate change but individual and community action is also vital for success. Climate change is already affecting us – it will inevitably affect every person on the planet and we should be ready to take individual action to reduce our impact and prepare for a changing world.

The Coventry Partnership is taking a very active role in helping to deliver our commitments to tackle climate change. The Environment Theme Group of the Partnership leads on climate change and within this Group it is proposed that a Climate Change Sub-group is established to monitor progress.

The Sub-group will be responsible for the following key actions:

- Promoting understanding and awareness within the **Coventry Partnership** through the delivery of **seminars and workshops** for Board members and Theme Group representatives
- Coordinating the production of an **annual report** to the Coventry Partnership Board coinciding with the City Council's Cabinet report.
- Developing a **Communications Strategy** in partnership with the City Council's corporate Communications Team, the Coventry Partnership communications group, and local media.

3.3 A Growing Coventry

The City Council and the Coventry Partnership work towards an agreed vision for the city as "a growing accessible city where people choose to live, work, and be educated and businesses choose to invest". There is a clear need to develop an understanding of how this desired growth for the city can be achieved within the context of the unavoidable impacts of future climate and the imperative to tackle its causes.

Coventry's economic growth and the environmental objectives of this Strategy are not mutually exclusive as the growth agenda presents us with opportunities to explore and develop innovative solutions and new technologies that help to reduce the causes of climate change. This kind of opportunity opens the door for new ways of working – across all sectors, with a range of partners, and also across traditional barriers, bringing together environmental, social and economic actions to achieve a city for the future.

3.4 Economic development

Creating the conditions for the growth of a successful city depends on a number of factors:

- Economic strength
- Skills and employment
- Quality of life
- Transport
- Quality of services
- Housing
- Sustainability

The city's draft Economic Development Strategy states that:

"Coventry plans to transform itself over the next twenty years so that it becomes a more vibrant and attractive place to live and work and becomes a destination of choice for people who want to live in a successful, stimulating, safe and sustainable urban environment."
(Innovative Coventry: A strategy for growth and transformation, Economic Development Strategy Consultation Draft, Coventry City Council, December 2007)

The draft Economic Development Strategy specifically identifies the creation of a city that is "more environmentally sustainable with set targets to reduce its carbon impact on the environment". A proactive and flexible approach to economic development is promoted, but with the principles of sustainable development at its heart: the two key values of environmental sustainability and social inclusion are embedded in this stated approach.

3.5 Sustainable communities in Coventry

Coventry's Sustainable Communities Strategy acts as a policy framework for the city for the next twenty years, giving direction to a range of other city plans and strategies. Two underpinning themes have been identified in the Sustainable Communities Strategy:

- A better equality of opportunity with vibrant and cohesive communities and neighbourhoods, and
- A reduction in the carbon footprint of the city and the more sustainable use of natural resources.

The Sustainable Communities Strategy expresses the need to use Coventry's planned future growth to benefit local people by improving the quality of life, raising aspirations and narrowing the gap between the most affluent and the most deprived parts of the city.
(Coventry: the next twenty years. Developing Coventry's Sustainable Community Strategy, Consultation draft, December 2007)

Climate change is being considered within each of the Sustainable Communities Strategy's eight themes, ensuring that tackling both its causes and its effects is a mainstream consideration for the Partnership's work over the next two decades and ensuring the city grows in a sustainable way. The developing Local Area Agreement reflects the priority afforded to climate change and sets challenging carbon reduction targets for the city.

3.6 Spatial development

The Core Strategy is one of the documents that form part of the Local Development Framework (LDF). It contains strategic policies which will guide the future development of the City up to 2026 and all other documents within the Local Development Framework must be consistent with it. Public consultation on the development of the Core Strategy took place in May and June 2006. Based on the responses from that consultation, the following is set out as the spatial expression for the Core Strategy of the City Council's vision.

"A premier city at the leading edge of sustainability, design, equality and diversity which is:

- Proud of its image and heritage
- At the heart of its sub-region
- Accessible and well connected, within and beyond the city
- Prosperous, with a growing economy
- Has a diverse and thriving city centre
- Consists of sustainable communities and local centres, which are vibrant, healthy and safe, and
- Allows people of all ages, backgrounds and circumstances to have access to a range of high quality services, amenities, jobs and a mix of housing types, and
- Has an attractive, easy-to-use, well designed and maintained built and green environment"

The challenge faced by the Core Strategy is how to capture the benefits of growth whilst minimising or eliminating the potential disbenefits. Growth will not happen if the city is not an attractive place to live, work, play and invest – and where there is a high standard of public services. Strategic planning for the future of Coventry needs to seek an improvement in all aspects of quality of life in the city – employment, opportunities, transport, housing, open spaces and the built environment.

Central to this is the emergence of a Supplementary Planning Document which focuses on Sustainability. This will set clear guidelines for developers, including key requirements for energy and onsite renewables, sustainable transport, sustainable urban drainage systems, waste and recycling amongst others, ensuring that the city's growth will be sustainable growth.

By including full consideration of climate change as an underpinning principle in the Economic Development Strategy, the Sustainable Communities Strategy and

the Local Development Framework, and developing detailed guidance and action plans, Coventry is committing to a more sustainable future.

In terms of the energy hierarchy (reducing demand - increasing efficiency - maximising the use of renewable energy), planning policy is well supported by recent national policy guidance and stricter Building Regulations. The Code for Sustainable Homes and the Government's drive to make all new homes zero carbon by 2016 are examples of this. Locally, planning policy is developing a new requirement that a proportion of the energy required for new developments should be derived from on-site generation from renewable sources.

3.7 Consultation

The draft Strategy was issued for public consultation between September and December 2007. During this time it received coverage on regional television, local radio and the local press. Residents also had the opportunity to attend Ward Forums in the city to hear about the proposals in the Strategy and to offer comments. A dedicated web page was set up, with an online response form for consultees to complete. Respondents were particularly encouraged to offer their views on the six themes within the Strategy, as well as a more general response to the overall target.

In all over 650 comments were made about the six themes proposed with the vast majority of them supportive and suggesting further actions or refinements. In total over 1200 individual comments were received.

3.8 Development of the Strategy and Phased Action Plans

The City Council has a clear leadership role with responsibilities for the well being of the city now and in the future. The Council has coordinated the development of this Strategy, working with the Coventry Partnership, but it is a document for the city and depends upon input, debate and, crucially, action from partners across all sectors. The consultation offered a vital contribution to the shape and content of the Strategy and its supporting action plans.

This Strategy reflects many of the views brought forward from the public consultation. As in the draft document, there is a strong emphasis on partnership work, and recognition that many people feel a passionate and personal commitment to this issue. The desire for support to enable individuals to take their own action at household and community level was evident, and this has been reflected in the review of the action plans.

3.9 Coventry's Greenhouse Gas Emissions, 2002-2003

Housing	42%
Transport	28%
Industry/Commerce	25%
Local Authority	3%
Other public sector	2%

This represents the proportions making up a total of 2,160,000 tonnes CO_2 equivalent throughout the city.

The Energy Saving Trust calculates that in order to meet the Government's target of a 60% cut in carbon emissions by 2050, existing housing must achieve reductions of 60 - 70% and therefore sustainable development will only take the city so far in meeting its targets. Average emissions of CO_2 per household are currently around 6 tonnes per year: this figure must be reduced to 2 tonnes per year.

Coventry is ahead of schedule to meet the government target to save 30% of energy consumption in the domestic sector by 2011, through better insulation and more efficient heating systems. Through partnerships between the City Council and other organisations, over 20,000 properties have already been provided with insulation and more efficient heating systems, saving an estimated 15,000 tonnes of CO_2. The Audit Commission, in their Corporate Assessment Report of June 2006, drew attention to our effective approach to promoting energy efficiency in the city.

3.10 Managing Emissions

The City Council's total emissions for 2002/03 (the most recent available) were 59,850 tonnes CO_2 equivalent. These emissions were attributable to the activities shown below:

Education	36%
Operational buildings	22%
Landfill sites (closed)	15%
Street lighting and signs	13%
Fleet vehicles	9%
Sports Centre	5%

This analysis reveals that the two main areas for the focus of this strategy are schools and council operational buildings. There is also a need to look for other areas where improvement can effectively take place through simple changes in operational planning and behaviour change.

The most effective approach would be based on the "energy hierarchy" i.e. reducing demand for energy, increasing efficiency of energy supply and use, and maximising the use of renewable energy. The development of an "invest to save" approach enables, after an initial input of funds, investment in measures that will, in time, make savings – which can then be re-invested in further measures.

THE ENERGY HIERARCHY

1. **Reduce the need for energy**
2. **Maximise energy efficiency**
3. **Supply energy from renewable sources**
4. **Where fossil fuels need to be used, use as efficiently as possible**

The Public Protection Division within City Services achieved accreditation for the ISO 14001 environmental management system (EMS) in December 2005; it provides an internationally recognised framework for target setting, measuring and monitoring our environmental impacts. Extending this (or another comparable EMS) to all parts of the council provides an effective and robust system for managing mitigation actions in our corporate work to tackle climate change. The Division also has many years' experience of working within local industry to support the development of individual EMS. An expansion of this service across new sectors will provide invaluable support to our citywide efforts to tackle GHG emissions.

The City Council is committed to tackling climate change and to making a major contribution to reducing greenhouse gas emissions for the city. In addition to the planning process, the City Council continues to promote many other initiatives that address the causes and effects of climate change including:

- Coventry's Agenda 21 Strategy includes an annual action plan to support the move towards a more sustainable city including activities such as sustainable transport initiatives, energy efficiency and the expansion of recycling opportunities.
- The development of Air Quality Action Plans for specific sites in the city leading to wider geographical benefits such as reducing congestion, management of traffic flows, modernisation of bus fleets and expansion of Park & Ride facilities, thus helping to tackle air quality problems and reducing greenhouse gas emissions.
- The provision in city schools of onsite renewable energy (for instance secondary schools Bishop Ullathorne and Whitley Abbey both have demonstration photo-voltaic systems, whilst Aldermoor Farm Primary has a ground source heat pump being installed, Allesley Primary is developing a wind power machine and Moseley Primary has established a green roof as well as a system of grey water recycling)
- Working with local businesses to help them improve their environmental management practices, reduce their use of energy and production of waste and use more resources more efficiently and encouraging them to be assessed to the ISO 14001 international environmental standard
- Embarking on an ambitious programme to renew street lighting in the city over the next five years via a Public Finance Initiative funded project
- Supporting an annual Switch It Off campaign to encourage employees and individuals to think about their energy use at home and at work and make 10% savings through simple measures
- The Primelines project, aimed at producing a step-change in the quality of bus services across the city
- Expanding our current ISO 14001 environmental management system to encompass the whole City Services Directorate to allow environmental improvements to be managed and measured effectively and to spread best practice.
- Working with companies and developers to develop green travel plans for both business and residential sites

- Helping to reduce landfill and generating electricity from waste through the Waste to Energy Plant
- Reducing the distance that the city's waste travels so that, under the proximity principle, waste is treated and disposed of as near as possible to where it arises

3.11 Operational Buildings

The council has already made significant progress in recent years to address energy use in its operational buildings. Energy campaigns in 1986 and 1991 delivered cumulative net energy savings of £1.6 million and installation of energy saving equipment such as building and plant insulation, lighting controls, zone control of heating, energy management systems, swimming pool hall ventilation controls and heat pump systems in our buildings continue to bring annual savings in energy and running costs.

A further campaign to encourage all council officers to reduce their use of resources is now under way and energy and water consumption labels are being produced and displayed in all our buildings, in compliance with the European Performance of Buildings Directive.

Schools in the city are being climate-proofed. Where capital spend is already identified for new build, these considerations will be part of the process. The greater impact comes from the existing estate, and actions to retrofit appropriate measures must also be considered. The Building Research Establishment (BRE) has measurable standards (BREEAM ratings), and currently for new build in schools, there is a minimum requirement to achieve a BREEAM standard of “Very Good”.

The expansion in the use of information technology and the move towards e-government presents a challenge to council efforts to reduce greenhouse gas emissions. Numbers of new computers and peripherals show a significant increase across the council in recent years. In April 2004 the number of desk and laptop computers stood at 3,600. In May 2007, this number had risen to 5,000.

This additional local equipment plus the necessary installation of new IT infrastructure generates heat in those areas of buildings where it is installed, leading to a need for effective air cooling, particularly in summer. This trend is repeated with an increase in the demand for, and installation of air-conditioning units. Clearly this has further impacts on energy consumption.

3.12 Infrastructure

Innovative and sustainable solutions are required and are set out in this strategy.

Some of the city’s drainage systems have been in place for many years, and a thorough review and risk assessment of the systems' ability to cope with future climate is necessary. There is a need to examine the infrastructure and prioritise

improvement in the context of the predicted increased occurrence of flash floods and the likelihood of more prolonged spells of heavy rain.

Insurance claims for water damage to the council's own operational and tenanted properties, and potentially to privately owned properties are likely to increase significantly unless considered action is taken at an early stage. The installation of Sustainable Urban Drainage measures may need to be accompanied by replacement of storm drains with larger carrying capacity, although this latter option is likely to be more expensive and disruptive.

Business continuity contingency plans will be developed and put in place for extreme weather events.

3.13 Landfill Sites

The amount of municipal and biodegradable waste going to landfill is low in Coventry – meaning less methane from the decomposition of waste is produced than for most other authorities. The Council will calculate emissions from landfill sites in order to obtain a clear picture of the total emissions for the city and develop any required mitigation measures. This will include former landfill sites.

3.14 Street Lighting and Signs

Street lighting and signs produced over 10,000 tonnes of carbon dioxide in 2006 indicating that this area is one for improvement in terms of emissions reduction. The Council is currently developing a major project to renew the city's public lighting. The project is being guided by a number of specific objectives including one that commits the authority to protect the environment by optimising energy efficiency and minimising light pollution. Coventry has already adopted the new European Code of Practice for Lighting, which allows greater flexibility in scheme design. Access to new technology means that the city is likely to use more energy efficient fittings, cutting energy consumption by between 10% and 30%.

3.15 Fleet Management and Transport

Since the 1970s, the European Union has introduced successive legislation for diesel-powered commercial vehicles. Euro emission 4 standard came into force in October 2006 and compliance to the stricter Euro 5 is due in October 2009.

In addition to this, there is a need to examine new ways of working in managing transport aspects of the council's estate and operations. Although fleet vehicles only contribute 3% to the council's total GHG emissions, the broader area of transport plays a significant role. It is an area where improvements can be made and where economic benefits as well as climate change targets can be achieved. Additionally, transport is a major source of GHG for the city as a whole, contributing 28% of the total: the Council has a clear role in promoting behaviour change in transport choices, and must be seen to be making the right decisions.

A decision to expand the use of low emission vehicles is being supported by a clear policy on replacement. As vehicles come up for renewal, the procurement

of new fleet will prioritise low impact choices – in terms of fuel used and suitability for purpose. This latter consideration will be informed by a review of vehicle movements.

3.16 Grounds Maintenance

In terms of adapting to climate change, there are implications for grounds maintenance and other landscape management activities. New ways of working will be developed, ranging from species choice in landscape planning, reflecting the changing conditions, to rescheduling of mowing regimes to reflect longer growing seasons.

Work schedules and operational planning should take into account the impacts of extreme weather events on outdoor working. Particular areas for attention might include exposure to UV, managing unsafe trees during and after storms and disruption to effective maintenance during and after floods. Storm events will require additional labour for clearing up. Plant stocks, including trees in the city, will be at risk from leaf scorch in hot summers, and fungal diseases in milder, wetter winters.

Dealing with the impacts of increasingly violent weather patterns is getting more expensive. Property claims resulting from flood, lightning, storms and subsidence are increasing. This has an impact on the council's internal claims fund, with the knock-on effect of increased charges to internal customers. To help combat the future increase in claims for subsidence, there is a need to review and replace street trees with more suitable species, or where possible to incorporate root barriers to prevent encroachment.

Alongside this, there is a need to plant more trees in the city, to help combat the heat island effect and contribute to sustainable urban drainage systems improving air quality, enhancing amenity and biodiversity, and providing shade in public spaces, schools and residential homes.

In terms of watercourse management, wetter winters and a greater intensity of rainfall leads to a need for effective ditch clearing and gully emptying to keep the system clear in readiness for flash floods. Flood management schemes will take contaminated land into consideration; especially where watercourse engineering works have deployed imported and untested materials.

3.17 Waste Management

There may well be a requirement to review the management and disposal of domestic waste (and commercial food waste) in hotter summers, to take into account any increase in pathogens and pests. This could include consideration of bin design or seasonal rescheduling of collection times.

3.18 Public Open Space

The maintenance and provision of facilities in public open spaces, especially parks, may have resource implications in our future climate. Keeping areas litter free, supplied with shade and water, and absorbing the impact of increased visitor numbers may require a review of service provision. Additionally, in the context of events planning, risk assessments should include consideration of extreme weather events and the development of contingency plans.

3.19 Changing demand for Council services

Climate change will bring changes in demand for the city's services. Environmental Health is a case in point, where increased summer temperatures and other changes to the seasons may lead to greater vulnerability to the spread of pests, diseases and disease vectors. Other issues such as the incidence of *Legionella* or the need for awareness and understanding on food safety could have service impacts. Climate proofing Operational Plans will be a key consideration for all Council services.

3.20 Emergency Planning

The council and its partners have a robust emergency planning framework with the capability to deal with the emergency consequences of climate change - extreme weather events such as storms and flooding. Although flooding in the city is a relatively rare and a minor issue compared with other towns and cities, the impacts of the anticipated increased incidence of flash flooding still need to be considered.

The Council's Emergency Planning Manual is designed to bring together the right people, facilities and information to develop individual plans for the circumstances in question. Emergency planning procedures and business continuity management may need to work together in particular circumstances, such that restoration to normality and the maintenance of normal services is effectively achieved

3.21 Communication and Engagement

Citywide engagement is central to the development and delivery of this strategy. Effective communication is recognised as a critical success factor for this strategy and must ensure that all sectors of the community receive clear and practical advice and information in order to move towards a low carbon way of living.

4 THEMES AND ACTIONS

4.1 Mitigation actions: Tackling the causes of climate change

Coventry's proposed targets to reduce greenhouse gas emissions are based upon a combination of the national headline target of a 60% reduction by 2050, and the World Wildlife Fund (WWF) philosophy of one planet living. This latter concept is based on the fact that we are using three times more resources than the carrying capacity of the planet.

In order to achieve these targets, it is necessary to focus on the most significant sources of greenhouse gases, and also to identify other areas where effective measures can be taken at low cost.

With respect to mitigation, the development and improvement of new technologies, coupled with effective policies and economic measures will complement the groundswell of public understanding and concern. Extended use of renewable sources of energy in both new and existing developments will help to reduce emissions. Increased efficiency and take up of sustainable transport will achieve the necessary modal shift to less damaging travel. We still need to prepare, however, for the unavoidable impacts of climate change over the next few decades, and adapt to changing conditions.

The principal recommendation of the Stern Review is a stabilisation goal of between 450 and 550 ppm carbon dioxide equivalents (CO_2e) – this is translated to an estimated temperature increase of a minimum of 1°C to a maximum of around 4.5°C over the next few decades. The lower estimate would appear optimistic: "Even if mitigation was sufficient to contain annual emissions at today's level, the world is likely to experience a 2°C warming above pre-industrial levels by 2050" [4]

Emission concentrations are currently at 430ppm CO_2e. The business as usual (BAU) scenario would result in 550ppm CO_2e by 2035. By the end of the century concentrations would be 850ppm CO_2e – with an estimated temperature increase of at least 5°C.

Clearly we have to take action to tackle the effects of climate change, and in particular address our mitigation actions to avoid reaching those levels of greenhouse gases in the atmosphere that are likely to bring about dangerous and catastrophic climate change.

In order to plan mitigation actions for climate change, it is vital to identify the most significant sources of greenhouse gas emissions, so that resources and effort can be directed at these as a priority. In the UK, 70% of all greenhouse gas (GHG) emissions come from electricity generation, the heating of buildings, and transport – a result of the use of fossil fuels such as gas, coal and oil.

4 Office of Climate Change, 2007

Recognising that these three areas need attention provides a basis for action planning. Data showing the main sources of emissions for the city and also specifically for the City Council help to identify where most effective action can be taken. Studies of trends also help to predict future impacts from these sources.

The UK targets are set against a baseline year of 1990. However, the first DTI/DEFRA data for Coventry are only available from 2003 onwards. In order to align with government cycles of planning, target setting and reporting, Coventry's baseline year will be set at 2003 in order to base our progress on accurate and consistent data, and will thus complement the five year cycles to 2050, starting in 2008, as proposed in the draft Climate Change Bill.

4.2 Adaptation actions: Preparing for the impacts of climate change

Over the next few decades we face the unavoidable impacts of climate change while we work towards stabilisation of greenhouse gas concentrations in the atmosphere. The key message is that everyone will be affected, but the most vulnerable individuals and communities will experience more severe impacts. It is therefore imperative that we assess the impacts, informed by detailed scientific research and updated scenarios. We can then develop adaptation actions for implementing in the short, medium and long term, so that we may maintain a good quality of life in the city for current residents and organisations, and for future generations.

Developing adaptation actions is about "taking actions that will help to reduce vulnerability to climate risks, or exploit opportunities", as defined in Climate Change: The UK Programme (2006). The Programme helps to identify impacts and develop scenarios resulting from different courses of mitigation action. The larger the changes and rate of change in climate, the more the adverse effects will predominate.

Adapting to the already apparent impacts, and considering how these will intensify over the coming decades is therefore a priority for all sectors. Climate change will affect everyone – globally, nationally, and in our city.

4.3 Delivery of the Strategy and Action Plan

This Strategy considers the two principal areas in need of attention – mitigation and adaptation. Mitigation - tackling the causes of climate change (comprising the unprecedented and growing concentrations of greenhouse gases in the atmosphere) is essential. Extensive work has been undertaken in modelling a variety of scenarios under different concentrations of greenhouse gases, globally and locally. The so-called business as usual scenario – if we continue as normal in terms of the level of production of greenhouse gases – indicates that there would be catastrophic climate change within a relatively short time frame. Coventry's Strategy recognises this, and mitigation actions have been developed in the context of the origin of greenhouse gas emissions in the city.

We do, however, need to adapt in readiness for the inevitable impacts of climate change. There is an estimated time lag of around 40 or 50 years before the

activities of today manifest themselves in terms of a climatic response. Hence the perceived impacts of climate change that we are witnessing already, such as milder winters, hotter summers, and extreme weather events such as storms and hurricanes, are rooted in our activities of 40 years ago or more. We therefore have to prepare for the impacts that have been predicted by scientific analysis of extensive climate data. These impacts will affect every part of our day-to-day life in the city.

The action plans include many of the original actions proposed in the draft document produced in September 2007 because many positive responses were received from the public consultation. Areas of common interest that particularly stood out, where a number of respondents expressed the same concern have been considered for action either for 2008/09 or the longer term. Some very specific ideas for action have been taken forward.

Monitoring, review and annual reporting procedures have been identified to reflect our accountability to future generations. There is a need to work flexibly, to take on board new data and understanding in this rapidly changing field of science, and to adjust responses accordingly. Above all there is a need to recognise shared responsibilities, and to work together across traditional boundaries. The Strategy has built-in high-level delivery and reporting mechanisms to ensure that our commitment now is sustained into the future, but it is up to each of us as individuals to commit to this challenge.

This main body of this section of the Strategy describes six broad themes of city life linked to one or more of the theme groups operating within the Coventry Partnership, indicated in brackets beneath.

No.	Theme	Short description and link to Coventry Partnership themes
1	**Putting people first** (section 4.4)	Sustainable communities, equalities and neighbourhoods ***(Equalities and community cohesion, Cultural partnership, Community safety)***
2	**Where we live** (section 4.5)	Housing and the built environment, this theme also takes in development and planning ***(Housing)***
3	**Making a difference** (section 4.6)	Education, skills and training, the theme includes the economic regeneration of the city ***(Learning, skills and employment)***
4	**Fit for the future** (section 4.7)	Health and well-being of individuals and communities, at home, school and work ***(Health and well-being***
5	**Gearing up** (section 4.8)	Transport is the focus, ranging from infrastructure to personal choices for travel ***(Transport)***
6	**Towards a sustainable city** (section 4.9)	Focuses on a range of environmental aspects of sustainable development, such as air quality, pollution, waste and local food ***(Environment)***

4.4 PUTTING PEOPLE FIRST: Our Community

4.4.1 SUMMARY

This theme aims to:

- Protect those people who are vulnerable to the effects of climate change
- Encourage sustainable communities
- Help people to work together at a neighbourhood level on a range of actions

4.4.2 KEY ISSUES

There is a need to recognise that some communities will be more vulnerable to climate change than others. Agencies will need to consider the different severity of impacts, such as the effects of heatwaves on older people and young children. This will be a problem especially where living conditions become uncomfortable due to high temperatures, or in the more densely built up areas of the city where poor air quality has detrimental effects on health.

The Council's Sustainable City Team works within local communities to promote and support our vision of a more sustainable city through an Agenda 21 Action Plan. The Team will be focusing on the development of sustainable communities through advice, support and sources of funding to assist local initiatives including energy efficiency, energy generation and reducing transport impacts, towards the development of carbon neutral neighbourhoods. Information and guidance will be produced in an accessible form, so that more residents will be able to make choices that contribute to the city's work to reduce emissions.

There is a significant education role for the City Council and partners to include climate change impacts in their work on reducing health inequalities in the city. Examples of vulnerable communities include: older people and young children, where the ability to maintain a healthy level of comfort during heatwaves is reduced, or communities living in high-density areas. The urban heat island effects are worst in densely built up areas, and where there is insufficient greenspace. The difference in temperature between suburbs and city centre can be more than 5°C.

4.4.3 CONSULTATION RESPONSES

Consultees expressed views about a number of key areas under this Theme. One point made by a number of people was the affordability of domestic microgeneration and energy efficiency improvements. Grants were felt to be too small and not accessible.

Many people supported improved recycling facilities, and also endorsed the idea of developing EcoStreets, where people in local neighbourhoods work together to take on a range of sustainability projects. Respondents under this and most of the other Themes mentioned the need for raised awareness about the issues around climate change, feeling that more publicity would help people take their own action.

4.4.4 ACTIONS

Phase 1: Actions for 2008 – 09 (bold denotes key deliverables)		
Community		Lead Directorate
P1S Action	**To promote the Planet Pledge where people are asked to commit to a series of actions that will reduce their carbon footprint and improve the sustainability of their lifestyles. Such actions might include fitting a number of energy saving light bulbs, composting domestic waste where possible, using alternatives to car use or switching to green energy.**	**CSD**
P2S Action	**Eco-living advice to householders: working with communities in their neighbourhoods to support action towards more sustainable patterns of work, travel and lifestyle. Such work aims to bring together residents, schools, businesses and relevant service providers towards the development of carbon neutral neighbourhoods.**	**CSD**
P3S Interim	To develop a scheme to help householders **install micro generation equipment** such as solar thermal, solar photovoltaic and ground source heat pumps. The Council will offer professional advice and guidance to householders and work on a scheme whereby, in partnership with financial institutions, favourable financing arrangements are provided to fund microgeneration equipment to increase adoption rates of new equipment. The Council will also work with suppliers of such technologies to further enhance their uptake in the city.	CSD/CDD
Phase 2: Medium to Long term actions		
City Council		Lead Directorate
CP1L	To develop a city-wide **microgeneration strategy.** This will support the ongoing promotion of microgeneration initiatives, in line with government policy, informed by guidance and advice for homeowners and developers	CSD/CDD
CP2L	To identify **vulnerable and at-risk communities** and neighbourhoods throughout the city and develop mitigation plans in partnership with relevant agencies.	CS/CSD

Key:
Items for 2008/09 are classed as either Action (ones that will deliver carbon savings in the timescale) or Interim (those that will lead to savings in later years). CSD – City Services Directorate, CS – Community Services, CDD – City Development Directorate, FLS – Finance and Legal Services, CWS – Customer and Workforce Services, CEx – Chief Executive's Directorate, CLYP – Children, Learning and Young People.

4.5 WHERE WE LIVE: The Built Environment and Land Use

4.5.1 SUMMARY

This theme deals with planning, land use and housing specifically:

- The promotion of energy efficiency and making buildings more sustainable
- Reducing flood risk across the city
- Developing sustainable urban drainage

4.5.2 KEY ISSUES

Land Use and Urban Design
Hotter drier summers will mean a significantly higher demand on water supplies. The location of new development needs to take this into account. Conversely, choice of location should also consider the increased likelihood of flash flooding, with its knock-on impacts on watercourses. There is a need to design landscape features that are able to absorb sudden peak flows in watercourses, using established sustainable urban drainage principles.

Parts of the city may be exposed to flooding during and after storm events. In both these cases, key support agencies should be aware of the potential impacts and able to act in support of those communities and individuals.

The current utilities infrastructure is vulnerable to severe weather, which can lead to disruption during extreme events. Extreme heat or flooding may have a direct impact, and indirect causes of disruption might include demand for energy during periods of high temperatures, when there will be increased pressure on cooling systems.

There is a need to develop new urban and settlement forms in response to unavoidable and anticipated climate conditions. Adapting existing urban spaces and streets for climate change mitigation and adaptation presents a major challenge, so there is a need to consider how the configuration of streets and spaces can accommodate both climate proofing and the necessary retention of existing buildings.

There is very real potential for conflict in urban design, especially where high density and compact development is felt to be desirable. This conflict arises from the urban heat island effect, which is significantly exacerbated in the absence of green open space. Good urban design for the future will incorporate trees and artificial structures to provide shade and shelter in the public realm. Provision of green space and green corridors will also be a key factor in adaptation measures for biodiversity in the city.

There is a need to maximise opportunities for sustainable urban drainage measures. The provision of greenspace enhances the ability of the land surface to cope with sudden impacts of runoff from impermeable road and paved surfaces.

Sustainable Buildings

The council has a responsibility to climate proof designs for buildings such as schools and residential homes. For example, planting trees to provide shade is especially important in school grounds and around buildings – with the caveat that the increased vulnerability to subsidence necessitates identifying the best species and varieties to use.

Both the maintenance of existing buildings and the commissioning of new ones must take into account the impacts of future climate. The effects of prolonged rain, intense sunlight, storms, subsidence and flooding must be considered. Internal environments should be carefully designed: there will be reduced demand for winter heating, but this will be replaced by a need for summer cooling. This has to be balanced against a desire to reduce energy consumption in buildings, so natural ventilation needs to be maximised.

There is a need to supply shelter, shade, and a supply of drinking water in school grounds, but also in open space, such as parks and city squares. The design of new build and public space, and refurbishment projects should be guided by considerations of future climate, and not be based upon present or historic climatic conditions.

4.5.3 CONSULTATION RESPONSES

Theme 2 covers a wide range of subjects, and brought forward a large number of responses from the consultation. People expressed views on some related issues under the other Theme headings, and some significant common concerns were identified. These included:

- The impact of flooding in the future, and the need to install Sustainable Urban Drainage Systems
- The value of, and threats to, greenspace
- Eco-standards for new buildings and improvements to existing ones, and
- Shortfalls in current planning policy and guidance

Much of this concern is rooted in the city's plans for growth, and the need to provide a considered approach to the nature and form of future development is imperative. The Local Development Framework is currently being drawn up, and this includes a review of existing policy and the production of new guidance.

National Planning Policy Statements (PPS) provide the framework for new and revised policies, and particularly, PPS1: Planning for Sustainable Development, which includes a supplement on climate change. Some of the actions below have been included to reflect these policy issues, and the need to work together more effectively.

4.5.4 ACTIONS

Phase 1: Actions for 2008 - 09		
Community		Lead Directorate
H1S Action	To implement and enforce Coventry's **policy on on-site renewables** in new development, as detailed in the city's Supplementary Planning Document on Sustainability	CDD
H2S Action	New developments should adhere to the guiding principles laid out in the **Strategic Flood Risk Assessment** (SFRA) and Planning Policy Statement 25 – Development and Flood Risk, such that development is located according to its vulnerability classification, avoiding the functional floodplain and favouring Zone 1 – Low Probability areas as a general rule. The SFRA itself should be updated as needed, depending upon the availability of new climate data and/or the rate of development.	CDD
H3S Interim	To develop a detailed strategic review of **Sustainable Urban Drainage Systems** (SUDS) in conjunction with Coventry University to establish priorities for medium term action	CDD & Cov Uni
H4S Interim	In conjunction with key partners, to carry out a feasibility study around developing an **Energy Services Company** (ESCO) to convert municipal waste to energy, heat and cooling capacity for use in residential and/or commercial premises avoiding the losses incurred by networked power distribution and being more able to react to local conditions and requirements.	CSD
City Council		Lead Directorate
CH1S Action	To ensure that **climate change champions** are members of development teams on major applications and programmes so that climate change is a central consideration from the very outset and before planning applications are formally submitted	CSD/CDD
CH2S Action	To ensure that **major strategic documents** for the city such as those included in the Local Development Framework, and the Sustainable Communities Strategy are developed with **recognition of the causes and impacts of climate change.**	CEx
CH3S Interim	To open a dialogue with house builders to undertake an **eco-dwelling demonstration project** in the city to showcase the available technology and hardware, to allow sustainable house building skills to be passed on and to act as a key educational resource through the active involvement of the education and training sector. A similar scheme to showcase retrofitting of sustainable technologies is also planned.	CSD/CDD

Phase 2: Medium to Long term actions		
City Council		Lead Directorate
CH3L	To further develop and extend the **invest to save** approach, recognising that capital spend on energy efficiency and the installation of renewable energy sources now for the council estate will result in financial and carbon savings in future.	FLS/CDD
CH4L	Ensure that all major **refurbishment projects** over £2m strive to achieve a BREEAM rating of Very Good, and minor refurbishment projects from £100k up to £2m should be able to show that design and procurement choices have been informed by a whole life cost assessment, in line with government procurement principles	CDD
CH5L	Compile a **review of energy use** in all existing and proposed **sports centres** in the city, and develop a programme of installation of **renewable energy technologies** such as photovoltaic, wind and combined heat and power (CHP) sources to meet energy needs – taking future climate into account.	CDD
CH6L	Investigate **higher energy efficient building fabric** standards and/or new technologies in house/office building regulations in advance of Government measures	CDD
CH7L	Develop a standard procedure to **eliminate wastage** of energy by equipment on standby. To be achieved through a combination of behavioural change and installation of timer devices.	FLS
CH8L	Research available methods of **natural ventilation and shading** to **reduce the demand for air conditioning** prior to purchase and installation of aircon units.	FLS
CH9L	**Appraise** new and existing IT installations **for energy efficiency**	FLS
CH10L	Review and **rationalise**, in terms of energy use, the number and type of **IT peripherals** for clusters of offices. This action has the potential to make savings on the purchase of materials such as toner and paper, thus further reducing our environmental impact.	FLS/CDD

Key: as per section 4.4.4

4.6 MAKING A DIFFERENCE: Skills for the future

4.6.1 SUMMARY

This theme focuses on the education and training sector to:

- Ensure climate change and sustainability awareness is embedded within the education and training sector as well as within the Council and Coventry Partnership
- Help businesses prepare for and make the most of the emerging environmental technology sector in the city and region
- Ensure that the education sector moves to a low-carbon method of working

4.6.2 KEY ISSUES

Education and training
Building knowledge and understanding is crucial to tackling the challenge of climate change. There is a clear need to ensure that all opportunities are taken to develop understanding. Mainstreaming awareness of sustainable development and, more recently, climate change has been a priority in Coventry for over ten years in both the formal and informal education sectors.

The Education for Sustainable Development (ESD) Strategy for Coventry Schools was developed with all partners delivering activities in schools, and provides a sound basis for annual action plans that support the National Curriculum. The Strategy empowers the whole school community to make more informed decisions about sustainability and climate change issues will increasingly become a major element of this work. This will be achieved by:

- Promoting and raising awareness of education for sustainable development
- Supporting schools and the school community in education for sustainable development
- Enabling schools to become more sustainable institutions
- Promoting initiatives, projects and resources that link to sustainable development
- Enabling networks and partnerships for education for sustainable development

The annual ESD event at Coombe Park, Coventry, developed and delivered in partnership with neighbouring authorities, continues to strengthen: each year around 1,500 primary school children benefit from a wide range of hands-on learning activities. Other initiatives involve schoolchildren in the decision-making process – such as the development of healthier and more environmentally friendly Safer Routes to School. Climate Change is a key issue for the Eco-Schools programme, and Coventry schools will soon be benefiting from a new package of support from the Sustainable City Team.

New Technologies
Climate change potentially brings new economic opportunities with many commentators describing the imminent move to a low carbon economy as the "second industrial revolution". The demand for new alternative technologies and adaptations to be developed, manufactured and installed will inevitably increase in coming years, as we attempt to reduce the causes of climate change and adapt to its effects. In terms of mitigation, economic drivers are found in the energy hierarchy, perhaps most significantly in the third step – maximising the use of renewable energy.

Business Awareness
The UK Climate Impacts Programme has developed the Business Areas Climate Impacts Assessment Tool (BACLIAT), which acts as a checklist for organisations to assess impacts on business. It includes consideration of threats and opportunities across seven generic business areas: logistics, finance, markets, process, people, premises and management implications.

4.6.3 CONSULTATION RESPONSES

In the context of education and awareness, people responding to the consultation were keen that all sectors should be considered in the drive to promote understanding and support action to tackle climate change. Schools should already be teaching children about climate change, but involvement in EcoSchools adds an extra dimension through actions that involve the wider school community. It was felt that school buildings themselves should be exemplars of sustainable building.

It was also felt that in particular, support for businesses was crucial, in terms of both advice and funding. Encouraging employee involvement in energy savings by asking for good ideas was felt to be an action for the City Council to take up, but could be utilised by any business.

4.6.4 ACTIONS

Phase 1: Actions for 2008 – 09 (bold denotes key deliverables)		
Community		Lead Directorate
E1S Action	**Ensure early engagement with the contract specification process for Building Schools for the Future, taking the opportunity presented to make a significant impact on reducing CO_2 emissions from schools. Currently education is responsible for 28% of the city's carbon footprint.**	**CLYP**
E2S Action	**Provide a business advice service to firms on how climate change will affect their business and what measures they can take to reduce its effects, become climate-proofed and actively seek out opportunities in the new low carbon economy.**	**CSD**

E3S Interim	Carry out a **review of schools buildings** to ascertain where the most effective energy actions can be taken, addressing both energy efficiency and installation of renewables. This action will strongly support the new drive to promote and support the further development of **Eco-Schools** an internationally recognised student-led whole school environmental improvement programme.	CDD/CSD /CLYP
E4S Interim	Carry out research into the potential for new local economic development based on **environmental technology** and the **new markets** arising as a result of climate change	CDD
City Council		Lead Directorate
CE1S Action	Reflect climate change in the content of the **corporate induction** programmes, ensuring that awareness of climate change and sustainability is one of the first key messages staff receive	CWS
Phase 2: Medium to Long term actions		
City Council		
CE2L	Extend the development and implementation of an environmental management system (EMS) across the City Council, and further extend our environmental advice work within the business community, encouraging more businesses in different sectors to adopt environmental management systems.	CSD
CE3L	Continue to organise the Education for Sustainable Development event "**2008 and Beyond**" to engage with students across the region in raising awareness of sustainability and climate Change	CSD & sub-regional partners

Key: as per section 4.4.4

4.7 FIT FOR THE FUTURE: Health and Well-being

4.7.1 SUMMARY

This theme focuses on the health impacts of climate change to:

- Green the city by planting more trees and installing green roofs where possible
- Ensure vulnerable groups in the community are protected from the effects of climate change such as poor air quality, heatwaves and flood risk
- Promote fitness and mobility by encouraging people to use alternative means of transport to the car

4.7.2 KEY ISSUES

Outdoor living may see a significant increase with immediately apparent benefits – the so-called desirable café society, increased tourism, increased community cohesion with greater use of public open spaces and other effects all contributing to economic and social improvements at community level.

Health impacts should be considered, as susceptibility to skin cancer through increased exposure to UV light becomes more significant. Related to higher temperatures and increased outdoor living, there is a need to provide shade in public spaces, streets and school grounds.

Health and heatwaves
New ways of working could include contingencies for school closures when a maximum temperature is reached. Workforce well being may similarly be considered, especially where buildings are unsuitable for coping with higher temperatures.

A reduced number of cold-related deaths in winter is predicted of up to 20,000 cases a year. Warmer summers, particularly heatwaves will, however, bring about an increase in heat-related deaths, predicted (Department of Health) to be around 2,000 cases a year. A proportion of such deaths results from respiratory problems linked to poor air quality.

Sunny conditions and traffic pollution combine to produce photochemical smog, with a resulting increase in ozone at ground level. Ozone irritates the lungs and this, combined with the increase in particulate pollution that accumulates in similar conditions, can lead to serious respiratory problems especially to those individuals with existing medical conditions. It has been estimated that between 21 and 38% of the 2003 heatwave deaths in the UK can be attributed to this combination.

The likelihood of pollution events is raised with increased number of summer high-pressure systems and a higher occurrence and longer sequence of calm winter days. As our climate changes, there will be an increase in the number of days with high pollution incidents. A range of adaptation measures could include enforcement of traffic management initiatives (to remove or reduce the origin of

the pollution, especially during heatwaves) or awareness campaigns to discourage people from taking exercise during pollution events because of the respiratory impacts.

Measures that help to tackle the impacts of climate change – particularly extreme weather events – can also contribute to a healthier city. The installation of sustainable urban drainage features such as better management of the flood plains, development of the green infrastructure, and green roofs in more built up areas can help to reduce extreme temperatures in a local context.

The development of green roofs helps to combat the urban heat island effect, provides an insulation layer to assist cooling and energy efficiency, slows down the rate of runoff especially during storm events, creates a visual amenity feature, and provides some habitat for wildlife. Each green roof should be designed with one of these key purposes as the main focus, with the other benefits being incidental

Floods
Flooding and flash floods impact upon health and well being in a number of different ways. These range from the impacts of disrupted sewage disposal to stress arising from domestic flood damage. There is a need to recognise that this is another situation where differential impacts may be experienced, with disadvantaged communities in the city being affected disproportionately.

4.7.3 CONSULTATION RESPONSES

Respondents to the consultation raised a number of issues and provided a variety of ideas about how the city could promote healthier lifestyles. Under this heading and under Theme 1, there was interest in promoting the use of local food, preferably organic. A number of respondents suggested that schools should be growing food in their school grounds and that links to the curriculum could be made here. Education for the wider community was also felt to be a good idea.

Trees and greenspace are clearly valued in the city: many people wanted to see more trees planted and greenspace being protected to help combat the effects of heatwaves. Green roofs were also favoured as a way of keeping temperatures down, and to slow down the rate of runoff during periods of heavy rainfall.

People recognised the importance of promoting walking and cycling, but felt that conditions should be improved for both, especially with regard to air quality. Poor air quality was seen to be a barrier to encouraging more walking and cycling.

The three community actions for 2008 – 09 listed below were directly supported by consultation feedback and the tree planting action included as a direct result of consultation.

4.7.4 ACTIONS

Phase 1: Actions for 2008 – 09 (bold denotes key deliverables)		
Community		Lead Directorate
W1S **Action**	**A plan to 'green' the city through an ambitious programme of tree and shrub planting, in which the city plants 10,000 new trees in the city during 2008/09. These trees could capture around 7,500 tonnes of carbon dioxide over their one hundred year lifetime balancing the emissions of 1,000 residents.**	**CDD/CS**
W2S Action	Introduce an effective means for **alerting people** when episodes of **poor air quality** are expected. Relevant forecasts in good time as well as more immediate warning systems such as text messaging to vulnerable groups are key ways by which the effect of poor air quality can be reduced on people with breathing difficulties or other long-standing medical conditions.	CSD
W3S Interim	Research the feasibility of installing **green roofs** in the city, working in partnership with Coventry University and other key partners in the city centre to assess the real world benefits in reducing energy use, reducing water run off and helping to combat the urban heat island effect.	CSD/CDD & Coventry University
Phase 2: Medium to Long term actions		
Community		Lead Directorate
W3L	Coordinate the development and implementation of a **heatwave action plan** for Coventry with health agencies and partners, guided by NHS Heatwave Plan for England (NHS, 2007). Also develop a **school heatwave action plan** should be considered by individual schools, with agreed maximum acceptable temperatures and contingency actions for school closures.	CS/CLYP
W4L	Support the community to **improve fitness and mobility** as well as addressing the causes of climate change through measures such as promoting walking and cycling, encouraging walking buses for schoolchildren through partnership working between the City Council and the PCT	CS/CDD

Key: as per section 4.4.4

4.8 GEARING UP: Transport

4.8.1 SUMMARY

This theme focuses on the transport sector to:

- Promote the use of more sustainable and low carbon methods of transport such as walking, cycling, car sharing and the use of public transport
- Examine what infrastructure changes are required to work towards decarbonising transport
- Consider and analyse the risk of damage to transport infrastructure as a result of climate change

4.8.2 KEY ISSUES

Infrastructure
High temperatures can cause damage to road and rail infrastructure, by melting the road surface or buckling rails. Travel during heatwaves can have health and safety implications, particularly in the event of delays and congestion, where users of public transport could experience heat-related stress, and drivers may be affected by drowsiness.

Gales and flooding during winter months will affect all forms of transport. Associated infrastructure developments such as cabling or drains should be climate-proofed or re-sited when designing new routes. Increased rainfall intensity may affect the integrity of bridge piers and embankments. These may also be affected by drier weather as it exacerbates subsidence.

Sustainable Transport
In considering employee travel to work in the city, there is a need to encourage and support a modal shift away from single occupancy cars towards walking, cycling, increased use of public transport and car sharing. This sustainable transport hierarchy is already embedded in City Council actions, where effective partnership working with transport providers has seen significant developments in recent years. Additionally, the City Council is addressing staff travel to work through a number of awareness raising initiatives such as bike to work days, salary sacrifice schemes for bicycle purchase and subsidised season tickets.

Transport and Air Quality
A number of actions to reduce the impact of transport have been developed through collaboration with a number of agencies and organisations, and require delivery through partnerships. These include:

- Expansion of the Primelines bus routes across the city
- Modernisation of the bus fleet
- Improvements in the taxi fleet
- New developments in public transport – such as Low Carbon Bus Rapid Transit

4.8.3 CONSULTATION RESPONSES

The consultation produced discussion and comments about different aspects of sustainable transport with the most popular issues for comment being cycling and buses. With regard to cycling, there was a clear desire expressed for provision of better quality cycling facilities and infrastructure in the city. More cycle routes, including more into the centre, and better surfacing were the most popular suggestions. Added to this, more provision for secure cycle parking and training for new and existing cyclists were also felt to be important.

General improvements in the bus service were called for, in terms of provision, reliability, affordability and safety. People felt that the bus service really should be providing a viable alternative so that it would be easier to select the more sustainable option. The reintroduction of school buses across the city was suggested by a number of respondents.

There was also a good deal of debate about congestion, with varying ideas about how to tackle it. Large out of town parking areas was offered as an idea to keep cars out of the centre. There was much support from people responding for the proposed action to examine the feasibility of establishing two new park and ride sites to the east and west of the city.

4.8.4 ACTIONS

Phase 1: Actions for 2008 - 09		
Community		Lead Directorate
T1S Interim	Promote cycling and walking through the provision of advice and infrastructure improvement and explore the feasibility of establishing a **fleet of short-term rental bicycles** in order to make it easier for people to make zero carbon choices in getting around the city	CDD
T2S Interim	Explore the feasibility of **two new Park and Ride** schemes to the East and West of the city. Such schemes could remove 600 cars per day from the city centre and reduce traffic emissions of CO_2 by over 120 tonnes per year (15 households' emissions) and reducing other pollutants.	CDD
T3S Interim	Evaluate the options for the replacement of appropriate vehicles within the City Council's fleet with **zero emission vehicles**, with power provided from renewable sources.	CSD
City Council		Lead Directorate
CT1S Action	Develop and further promote the **Council wide Corporate Travel Plan** which will help employees travel to work in the most carbon efficient way by providing advice and assistance on alternative ways to come to work such as the use of bicycles, public transport or car sharing.	CDD

CT2S Action	Continue the programme of development of **School Travel Plans** in line with the government's target that all schools should have a Travel Plan in place by 2010	CDD
Phase 2: Medium to Long term actions		
Community		Lead Directorate
T4L	Carry out a survey and **risk analysis** of vulnerable locations such as **bridge piers, embankments**, and locations with the highest proportions of impermeable surfacing, where flash flooding is more likely to cause transport disruptions.	CSD
City Council		Lead Directorate
CT3L	Carry out a review of the number and **type of fleet vehicles** used in order to identify an energy saving fleet management strategy for the future.	CSD
CT4L	Carry out a review of **vehicle movements** for Council operations. This review should take into account the potential for future development of local depots and offices with the dual aim of contributing to better service delivery and reducing the need to travel. The size of vehicle deployed for various operations should aim for **reduced mileage** overall.	CSD
CT5L	Investigate the feasibility of investment in **low emission pool cars** with an attached target to ensure that pool cars are used preferentially. Currently there are only five pool cars available for business mileage – three electric cars and two hybrids. A clear shift towards increasing lower-impact pool vehicle mileage and decreasing mileage carried out by staff private cars would have significant cost and environmental benefits	CSD/CDD
CT6L	Review the issue of **car park passes** to encourage the use of low emission vehicles. This should run in conjunction with the previous action. With an increased fleet of low emission pool vehicles (located close to office buildings), the lower impact choice is made more accessible.	FLS
CT7L	Adopt **PIs** to cover sustainable forms of travel such as **walking and cycling.** The inclusion of such for sustainable travel will demonstrate our commitment to less damaging forms of transport.	CDD

Key: as per section 4.4.4

4.9 TOWARDS A SUSTAINABLE CITY

4.9.1 SUMMARY

This theme links sustainability to climate change by:

- Encouraging efficient use of resources from local sources where possible
- Promoting the preservation and enjoyment of green space in the city
- Making the link with other environmental improvements like air quality and contaminated land management

4.9.2 KEY ISSUES

Greenspace and Biodiversity
There will be an increasing need to protect and provide green spaces and woodland for the benefit of people and biodiversity. This will need to be balanced against the demand for new housing and other development, as embraced by the growth agenda for the city.

An ecosystem approach to mitigation and adaptation must be built into the decision making process as there is an increasing need to protect and build healthy ecosystems for the benefit of people and biodiversity. The value of climate regulation as a key aspect of healthy ecosystem functioning must be recognised by decision makers and acted upon accordingly.

Climate change has inevitable impacts on the ranges of plant and animal species and will result in movement of species as they adopt strategies to survive. This movement is clearly impeded by such factors as habitat destruction and fragmentation. Many species are already in serious decline, unable to shift their range to cope with changing climate.

A landscape scale approach to conservation is now felt to be the most effective way of protecting our natural heritage. This involves identifying existing pockets of higher quality habitat and securing these along with habitat linkages to create corridors of suitable habitat which are then managed sympathetically so that a network of habitat opportunities is created.

This has benefits for people as well as wildlife, especially when urban green space and green corridors are integrated into new developments. This approach offers effective climate adaptation benefits for people living nearby through the ability of green space to dissipate heat within built-up areas, and because of its ability to absorb rainfall and runoff more effectively than paved surfaces.

Allowing a more natural ecosystem to develop in the undeveloped flood plains in the city will improve their effectiveness in reducing the impacts of flood events. For example, close mown amenity grassland in the Sowe and Sherbourne valleys could be substituted by meadow grassland, marshier areas and newly created ponds, giving clear benefits for flood management, wildlife, and amenity.

There are future climate impacts to consider in the context of contaminated sites. Increased flood events have the potential to wash through areas of made ground and landfill sites which lie near streams and rivers, thus releasing contaminants. Added to this is the longer-term effect of increased seasonal rainfall, which increases the throughput of water in contaminated sites, increasing groundwater contamination. Hotter, drier summers lead to drier soils, which in turn create new and effective pathways for contaminants to migrate from sites.

The impacts of increased temperatures may include greater production of landfill gases in the short to medium term, creating a greater risk to residents and other health and safety issues. There may also be additional hazards resulting from the increased production of volatile gases from sites contaminated by hydrocarbons.

4.9.3 CONSULTATION RESPONSES

Respondents' ideas about how the city can become more sustainable were many and varied, and focused particularly upon community level action, on future development of the city, and aspects of corporate responsibility. From the community point of view, there was significant interest in recycling and composting, and also in local food growing (on allotments, community gardens and on farms in the city).

The future development of a sustainable city, according to consultees, should be considering for all new build incorporating:

- Energy efficiency – beyond minimum standards
- Installation of renewable energy technology
- Tree planting, and
- An allocated food growing space for each residential unit

Habitat protection and landscape scale approaches to conservation were identified as crucial, not just for the survival of local biodiversity, but also to maintain healthy ecosystems as a way of combating the impacts of climate change. Greenspace plans for the city should be providing improved opportunities for wildlife, creating green linkages, and integrating greenspace into new developments.

Considerations of corporate responsibility ranged from a call for shops to stop locating their heater and air conditioning units by the doors, to a thorough review of procurement policy, towards reducing the impact of transport and supporting the local economy. Many people highlighted the irresponsibility of excessive lighting in the city, such as offices leaving lights on all night, or over-illumination of public buildings.

There was general support for the Strategy itself, with the vast majority of respondents feeling positive about its aims and content. In considering how it should be delivered, respondents felt that there should be an independent Climate Change Working Group for the city.

4.9.4 ACTIONS

Phase 1: Actions for 2008 - 09		
Community		Lead Directorate
S1S Action	Analyse the results of the **aerial thermal survey** of the city (March 2007) to identify those streets and neighbourhoods most in need of energy efficiency improvements. This will then allow advice on energy efficiency as well as grant assistance to be delivered to these areas to tackle fuel poverty, and allow work with businesses and schools, as well as within the domestic sector.	CSD
City Council		Lead Directorate
CS1S Action	Adopt **national performance indicators** for climate change mitigation and adaptation for the City Council's actions as these become available and include these indicators in Coventry's Local Area Agreement, reinforcing the importance and centrality of tackling climate change to Coventry's long term prosperity.	CEx
CS2S Action	Establish a **Carbon Hotline**: this is intended to allow employees to report where they think carbon savings can be made or be investigated. Front line employees often have some of the best ideas for making efficiency changes and a confidential carbon hotline provides an outlet for these ideas and suggestions	FLS
CS3S Action	Each Directorate Management Team to conduct a **risk analysis of climate change impacts** for their service areas and amend Directorate Risk Registers as appropriate, building appropriate mitigation actions into services' operational plans.	FLS
CS4S Action	Produce an **annual performance report** to Cabinet which outlines the progress made on delivering this strategy in the previous year and sets out the key actions for following years thus ensuring appropriate performance management arrangements are in place and that the strategy remains under regular review.	CSD
CS5S Action	Establish a **Climate Change Sub-group** of the Coventry Partnership's Environment Theme Group. The group's principal role will be to **monitor and report on progress** made by all partners towards climate change targets – both from a performance management and policy development perspective.	CSD/Coventry Partnership
CS6S Interim	Develop a new and innovative **waste strategy** for the city that will bring together the twin aims of reducing carbon emissions and further raising the city's municipal waste recycling rate, working with colleagues in the Coventry, Solihull and Warwickshire sub region.	CSD

CS7S Interim	Development of a **Sustainable Procurement Toolkit** to be used when undertaking major procurements, encouraging positive sustainable measures and mitigate possible negative impacts. Provide training sessions to build awareness of the use of specification, contract performance and monitoring, as well as whole life evaluation to achieve sustainable outcomes whilst achieving value for money.	FLS
CS8S Interim	Develop a joint City Council/Coventry Partnership **climate change communications campaign and strategy**, ensuring that the key messages are constantly reinforced.	CEx
Phase 2: Medium to Long term actions		
Community		Lead Directorate
S2L	Continue to **identify potentially contaminated sites**, particularly where the production of GHG may be an issue, so that mitigation action may be taken for such sites	CSD
S3L	Along with partners, carry out a hydrological study of the city to review the potential **effects of storm surges** on watercourses, storm drains, and leachate pathways from contaminated land.	CSD
S4L	Promote and support the delivery of **related actions** within the **Air Quality Action Plan.**	CSD
S5L	Identify and make available resources for the promotion of **composting** at community and neighbourhood level to promote more sustainable waste management in a domestic context, and to link with the promotion of **growing local organic food.**	CSD
S6L	Investigate the feasibility of utilising **ground source heat pump systems** to extract heat from council-owned land, particularly closed landfill sites, for use in new or existing commercial or residential developments.	CSD
S7L	Ensure that **emergency planning** and **business continuity** strategies take climate impacts fully into account across all sectors. (The development of microgeneration in the city will contribute to energy security for businesses, healthcare, education and residents.)	CEx
City Council		Lead Directorate
CS9L	Investigate the feasibility of **power generation or flaring off methane** from Council owned landfill sites. As methane is a more potent greenhouse gas than carbon dioxide, it is preferable to burn methane generated from landfill sites.	CSD
CS10L	Carry out research to **climate proof landscape planning** to take into account how species selection will reflect changing environmental conditions.	CDD
CS11L	Measure and record total **emissions from City Council landfill sites**, closed and active.	CSD

Key: as per section 4.4.4

5 OVERALL GOAL

The goals for the city are:

- **A 70% reduction in carbon dioxide emissions between 2003 and 2050**
- **An interim target of a reduction of 40% by the year 2025**

Coventry's proposed target constitutes a more demanding challenge than the present UK target and as a rule of thumb requires roughly a 3% reduction in carbon dioxide emissions annually. Working towards a "One Planet City" promotes the idea of careful use and management of resources in clear terms that can be transferred to a range of situations from major industry to domestic households.

To help us achieve these goals, we want everyone in the city to understand the implications of climate change and what actions we all need to take in order to reduce its impact and to adapt to the inevitable changes. We all need to change our behaviour to reduce our carbon footprint and follow more sustainable lifestyles.

The Council's and the Partnership's own actions must also be clearly demonstrated in order in order to obtain the engagement of businesses and other organisations and persuade them to prepare for the move to a low-carbon economy.

This Strategy, supported by its Annual Action Plan, is intended to reflect both the council's leadership role in the city, and our ability to work together as a community, engaging with all citizens and sectors in one of the most long-term and crucially important endeavours we have to face in the coming decades.

Appendix A

References and sources of further information

Draft Climate Change Bill (2007)
HM Government

The Stern Review (2006)
HM Treasury

IPCC Fourth Assessment report (2007)

Climate Change: The UK Programme (2006)
HM Government

Health Effects of Climate Change in the UK
Department of Health (2001, 2007)

Heatwave Plan for England (2007)
NHS

Managing Energy and Water Use in Coventry Schools (undated):
Coventry & Warwickshire Savers Group

The Rough Guide to Climate Change (2006)
Robert Henson
Rough Guides

Websites

Intergovernmental Panel on Climate Change (IPCC)
www.ipcc.ch

Energy Saving Trust
http://www.energysavingtrust.org.uk/

DEFRA
www.defra.gov.uk/environment/climatechange/index.htm

UK Climate Impacts Programme (UKCIP)
www.ukcip.org.uk

BBC Climate Change
www.bbc.co.uk/climate

Tomorrow's Climate Today's Challenge
www.climatechallenge.gov.uk

Act on CO_2
http://actonco2.direct.gov.uk/index.html

Appendix B

Glossary

Carbon equivalent
A figure which takes into account the overall prevalence of a given greenhouse gas. To obtain the carbon dioxide equivalent (CO_2e), the carbon equivalent is multiplied by 44/12, a calculation which allows for the relative molecular weights of carbon dioxide and carbon.

Carbon pricing
An economic measure that puts a price on carbon, so that financial incentives are attached to energy efficiency and investment on low-carbon options. This can be delivered through emissions trading, taxation and regulation.

Emissions trading
An overall cap on total emissions is determined for those sectors covered by the scheme. Organisations involved (ideally) make their own reductions, but can also buy and sell allowances from other businesses or sectors within the scheme. This establishes a carbon price which varies with the level of the cap and the cost of making savings.

Greenhouse Effect
Radiation from the sun passes through the atmosphere and warms the surface of the earth. Although most infrared radiation escapes to outer space and cools the earth, greenhouse gases (GHG) trap some of this, resulting in global warming. The natural greenhouse effect is essential for life on earth – without it; the planet would be 30°C colder.

Greenhouse gases
There is a "basket" of greenhouse gases, which can be emitted and removed by natural processes. The main GHG include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6) – and water vapour (H_2O). Human activities can increase levels of these gases, increasing the greenhouse effect and global warming.

Additional GHG from human activity include hydrofluorocarbons (HFCs) and chlorofluorocarbons (CFCs). The potency of each of these gases in the context of exacerbating the greenhouse effect is variable.

The relative impact of a GHG is measured by its global warming potential, with carbon dioxide represented by 1. The global warming potential of methane, for example, is 23 – in other words, it is 23 times more powerful than carbon dioxide in trapping heat in the atmosphere. Three gases - CO_2 (56%), CH_4 (16%) and N_2O (5%) - have contributed the majority of all the warming effect produced by GHG from 1750 to the present day.

In order to get a better picture of the overall impact of the basket of GHG, a **carbon equivalent** figure is used which takes into account the overall prevalence of each gas.

Intergovernmental Panel on Climate Change (IPCC)
Formed in 1988, the IPCC represents the authoritative scientific consensus on climate change, and was set up to assess the scientific and socio-economic information on climate change. It considers impacts of climate change, and the options for mitigating and adapting to it. The IPCC Fourth Assessment Report was published in January 2007.

Urban Heat Island
This is a localised thermal effect, which occurs in urban areas due to the presence of large areas of concrete or masonry, which heat up during the day through the action of sunlight. During night hours these large masses of masonry act as storage heaters, releasing heat and ensuring the urban area remains a few degrees above the normal ambient temperature.

Zero Carbon Homes
Homes that produce on average zero net emissions over a year. There is a UK target (proposed by Department for Communities and Local Government in December 2006) that all new homes will be zero carbon by 2016. It is thought that this will be achieved through better insulation and the use of renewable energy. A progressive tightening of Building Regulations will provide a framework to support this target.

Appendix C

Relationship between adaptation categories and Coventry Partnership theme groups

		Coventry Partnership Theme Groups							
Climate changes adaptation categories		Health and well-being	Learning skills and employment	Environment	Cultural partnership	Community Safety	Housing	Transport	Equalities and community cohesion
	Land use and planning	▒	■	■	■	■	■		
	Housing and buildings	■		▒			■	▒	
	Transport		■	▒	▒			■	
	Waste management			■					
	Energy and utilities		■	▒					
	Water and drainage			■			■	▒	
	Biodiversity	▒		■	▒	▒			▒
	Society and lifestyles	■			■	■			■
	Health	■			■				■
	Economy and business	▒	■	▒					

N.B. Black box denotes direct fit, shaded box denotes indirect fit

B: Summary of consultation response

Climate Change Strategy: Summary of consultation response

For the online consultation and the equivalent response form, consultees were given the opportunity to respond to the **overall targets** and to each of the **six themes**. They were also encouraged to offer **additional thoughts** in general consideration. In total, we received 1228 comments from the 28 questions we asked (see Appendix A).

This summary comprises three sections. The first (Section A) analyses the responses to the overall feel of the Strategy and its proposed targets, and the second section (B) covers the six themes, which formed the main body of the consultation, and which ultimately received 655 separate comments. The final section (C) considers more general comments and suggestions.

Originals from the online consultation, questionnaire forms, emails and letters received are all available for perusal upon request.

Section A: Overall direction and targets

- The vast majority of respondents were positive about the strategy and suggested ideas about how to achieve the goals within each theme or provided new issues to consider. There were two respondents that questioned the existence of climate change and the contribution that humankind makes to the problem and challenged the scientific evidence for the need to take action.

- When asked whether the strategy and actions were radical enough, 47% felt we should go further and 44% thought it was about right with the remaining 9% believing it to be too ambitious.

- 79% of respondents feel that the Council should do more to demonstrate leadership in tackling climate change, with 15% disagreeing and 6% saying they don't know.

- When asked whether they agree with the carbon reduction target of 67% by 2050, 34% thought it was about right but nearly 60% felt it should go further with nearly a quarter of respondents feeling that a 80 – 90% reduction target is more appropriate. Only 7% felt that the target should be lower.

- Six out of ten people agreed that the interim target of 35 – 40% by 2025 was about right, with a third disagreeing and 7% saying they don't know.

(Percentages rounded)

Q1. Is the strategy radical enough?	Should go further	47%
	About right	44%
	Too ambitious	9%

Over 90% of respondents agree that the strategy is about right or should go further.

Q2. Should the City Council do more to demonstrate leadership?	Yes	79%
	No	15%
	Don't know	6%

Nearly 80% of respondents think the Council should show leadership on this issue.

Q3. What do you think the proposed CO_2 reduction target for 2050 should be?	80 – 90%	23%
	70 – 80%	36%
	Fine as it is (67%)	34%
	50 – 60%	3%
	40 – 50%	4%

60% of people think the targets should be made more stringent.

Q4. Do you agree with the interim CO_2 reduction target (35 - 40% by 2025)?	Yes	61%
	No	33%
	Don't know	7%

Roughly two thirds of people agree with the 2025 interim target.

Section B: The six themes

The responses for each of the themes have been collated and reviewed and are summarised in the table below.

Theme 1: Putting People First
(This deals with the issue of people's vulnerability to climate change and how preparations must be made to address such issues as the effect of heatwaves, urban heat island, flooding and others. The creation of sustainable communities in the city is also included in this theme.)

Issues	Summary of comments
Local food	Domestic food growing Schools grounds for growing vegetables - potential to focus on aspects of health, organic food, eating on a budget as well as linking with Eco-schools, Healthy Schools and Sustainable Schools initiatives.
Climate change working group	Proposed group for the city (which could be created from a network of early adopters, key organisations, and could feed in to the proposed Climate Change Theme Group of the Coventry Partnership)
Differential impacts	Gap between rich and poor likely to be exacerbated
Plant more trees Increase greenspace	Support for: • tree planting • increasing greenspace • (specifically) incorporating greenspace in new developments.
New developments	More energy efficient buildings in new developments
Sustainable urban drainage systems	Consultees showed a keen interest in sustainable urban drainage systems (SUDS). Worries about: • the impacts of paving over gardens and other grassed areas • building on the floodplain (16 separate specific comments in total). The impact of flooding was also of concern, with recognition of the potential health hazards of sewage being a constituent part of floodwater.
Lighting	Wasteful of energy: • Lights on advertising hoardings • street lighting Suggestion that street lighting could be reduced in some way during the night, by dimming between 11pm and 6am.

Building modifications	For extreme weather events
Recycling Ecostreets	People showed a very keen interest in recycling There was support for the idea of establishing Ecostreets in the city – with one person expressing a desire to see them right across the city in due course.
Air quality	Concern about air quality and health
Grants	Many people would like to install energy efficiency measures and renewable energy systems at home, but find that there is a lack of sufficient and accessible grant support for this.
Cost-benefit analysis	Need to balance the cost of replacing items with more energy-efficient versions, when there is an implication of embodied energy
Barriers identified	**Summary**
Cost	• Availability and accessibility of grants and funding identified as a major barrier (this was the case for each of the six themes). • a lack of government and local funding for microgeneration in particular • a lack of funding for low income communities and individuals. *(Grant aid from central sources for renewables when it is available provides <u>up to</u> 50% of costs – many people have difficulty in finding the other 50%, which would in most cases amount to at least a few thousand pounds.)*
Knowledge Attitude	• lack of awareness and understanding • lack of information • Attitude challenges - self interest, apathy, climate change scepticism, uncertainty and a lack of belief that personal action can make a difference.
Policy Infrastructure	Counter-productive policies "such as building on the flood plain" and the demand for new housing through the growth agenda were also cited as barriers. A lack of political will, and a lack of commitment from public agencies were perceived to be problems. People are more likely to change behaviour if good alternatives exist, and the lack of decent public transport was seen to be a barrier by a number of consultees.

Theme 2: Where We Live
(This deals with planning, land use and housing and covers how we need to change our use of buildings and ensure that future development is climate-proofed.)

Issues	Summary of comments
Flood plains Sustainable urban drainage systems (SUDS) Green roofs	"Don't build on **flood plain**" – 12 respondents Nine people commenting on **SUDS**, including: • concerns about paving over front gardens • maintenance of gullies • endorsing the use of porous paving to reduce urban heat island effect • welcoming the proposed SUDS Strategy • suggesting the creation of seasonal water features/balancing lakes on Council land **Green roofs** found support from consultees – within this theme, three people thought they should be compulsory on all new build with suitable roofs.
New developments	Ecostandards for all new development supported, including 4 people who said that the Merton Rule (requirement to install on-site renewables) should be enforced The impact of development in its context should be considered, giving regard to street lighting, transport, greenspace, biodiversity, SUDS Covenant for future use – when new owners acquire an ecobuild development, they should be bound to use the building sensitively thereafter.
Greenspace Trees	16 people identified greenspace and trees as an issue: • mentioned their value in creating attractive new developments • ability of trees to tackle particulate pollution, absorb CO_2 • threats to green belt were mentioned • a desire for more greenspace
Planning restrictions	Awareness of certain planning rules affecting installation of renewables – concerns raised
Co-location/ sustainable communities	Reducing the need to travel and the impact of transport – locating businesses near their suppliers, housing near schools, work, shops and leisure
Sustainable materials/ procurement	3 people were keen to see sustainable procurement for new development – including the choice and use of sustainably sourced materials
Retrofit	6 responses raised the issue of existing buildings • improve to be made more energy efficient • retrofitting of renewables etc. • Re-use of existing buildings rather than large scale unnecessary demolition
Street lights, traffic lights	The energy impact of lights was recognised – LED traffic lights were proposed, and a number of people felt that there were too many street lights or that they were left on too long.
Gardens	Concern here and under other headings about gardens being built upon.

Design	While the conflict with the growth agenda was recognised, it was felt that good design could address this.
Adaptation	Aspects of adaptation to climate change were included • the need for flood adaptation measures • Emergency planning/business continuity
Make walking more pleasant	It was felt that traffic fumes are likely to discourage people from walking
Joining up	Link planners and sustainability officers
Grants, incentives and disincentives	Recognised that financial measures help: • Grants for insulation wanted • Incentives to turn housing greener • Grants for solar panels and wind turbines • *Dis*incentives mentioned too
Barriers identified	**Summary**
Cost	• Cost of: Remediation of contaminated land, ecobuild, retrofit. • Lack of government investment. • Grant system is restrictive • Poverty.
Knowledge	Short sighted developers
Attitude	Attitude challenges include: • Cynicism • Disinterest • Greed • Apathy • Lack of participation in decision making • Inconvenience of making changes • People not taking this seriously • A perception (by planners) that new building is the only sign of regeneration taking place
Policy Infrastructure	• Conflict with growth agenda – raised by 8 people within this theme • Planning policy doesn't go far enough • Lack of strong local leadership and vision • Local planning laws • Poor planning guidance • "sustainability sacrificed for short term gain" • overpopulation

Theme 3: Making a Difference
(The key roles of education and training in helping people to move to a low carbon way of living are addressed by this package of actions along with how business and industry are skilled up to tackle climate change.)

Issues	Summary of comments
Environmental trainers and advisors Toolkit (businesses)	Training and talks – all sectors Should be developed
RSLs	Improving/upgrading housing stock
Community education	Courses on climate change and sustainability for all
Schools	A number of comments; • all schools should be carbon neutral • there should be an annual schools conference on climate change • schools arts/drama event to raise awareness • school gardening/food growing projects (x2)
Ecostandards	New build
Greenspace, biodiversity	Benefits to health and quality of life
Energy security	New partnerships working towards energy security for the city (ESCOs)
New technology	New technology: • to exploit • to attract new clusters of businesses to the city • to provide an opportunity for reskilling – funding should be made available to enable this to happen
Procurement	People were keen to see the Council's suppliers with ISO14001 accreditation
Education and awareness	Use a variety of media, including local radio
Incentives and support for business	Business rates should favour those with EMS in place, to encourage all to take on environmental management
Barriers identified	**Summary**
Cost	7 respondents cited cost as a barrier Also: • need incentives • government/local funding needed to support business advisors/trainers • cynicism
Attitude	• danger of people switching off if message is repeated too often • selfishness • change in lifestyle not welcomed • apathy • profits are the priority in business
Policy Infrastructure	• make recycling easier • conflicting local priorities • political will

Theme 4: Fit for the Future
(The measures within this theme will allow pragmatic and effective steps to be taken to ensure people's health and well being are not adversely affected particularly during acute events such as heatwaves, new and varied disease vectors and the effects of sun.)

Issues	Summary of comments
Healthy eating	Seasonal local food
Education	Education about healthy eating, "education not nannying"
Green roofs	7 people were in favour of green roofs under this heading
Trees	Trees – people wanted: • more trees (x2) to provide shade • more trees for CO_2 absorption (x2) • more tree-shaded areas with seating in the city centre
Greenspace	More support for greenspace
Sustainable transport Public transport Cycling and walking	More green travel plans Public transport issues: • more reliable buses • integrated transport • rapid transit system Improvements wanted: • cycle routes (lighting and surface) • safer roads
Technology	Air conditioning to run on clean energy
New diseases	Public awareness
Localisation	"Government should divert major resources into creating sustainable societies"
Biodiversity	• Call for a revitalised Biodiversity Working Group • Community engagement in wildlife schemes – habitat management, tree planting
Barriers identified	**Summary**
Cost	Cost as a barrier was identified by 5 people
Knowledge	• ignorance • "some people assume that it'll be pleasantly warmer"
Infrastructure	Not a good track record on cycle routes

Theme 5: Gearing Up
(Given the large contribution of the transport sector to climate change, how we get around and the infrastructure we need to do this are some of the largest issues we need to address in reducing our carbon footprint.)

Issues	Summary of comments
Reduce need to travel	Through home-working, web-based technology
Ecodriving	Promote better driving practices 20mph limit proposed for built up areas off main roads
New developments	Plans should: • assess walking and cycling provision carefully • design out cars • reduce number of parking spaces allocated • allow for reduction in car and air travel.
Cycling	Significant interest in cycling: • more provision (x3) • improve cycle routes (x5) • more cycle routes into centre • new cycle routes • integrate with other modes • prioritise cycle routes for resurfacing • provide lockup facilities x2 (at retail parks x1) • rent a bike scheme supported • link to park and ride supported
Buses	General improvements called for included: • provision • reliability • cleanliness • cheaper • more efficient • offering a viable alternative • swift • safety – free from ASB
Public transport - general	Comments included a desire to see improvements to infrastructure, cheaper public transport (x3), more efficient (x2), and a suggestion that transport providers should go green (fuel).
Congestion	A lot of interest in congestion: • a number of people suggesting that cars should be banned from the city centre • there should be congestion charging within the ring road • Park and ride is popular with support for the extension – provision of two new sites • "Large out of city parking areas" were also suggested • congestion could be tackled through synchronised traffic lights and better lane layout. • Single occupancy cars disincentives
Electric transport	Electric power was favoured for public transport and also for Council vehicles
Car clubs	Introduce city car club

School buses	2 people suggested that school buses should be introduced
Localisation	Reducing the need to travel – working from home, videoconferencing – thus reducing the impact of travel
Barriers identified	**Summary**
Cost	6 people identified cost as a barrier
Attitude	• Coventry car city/car worship (x2) • Attitudes (x5) • People expect to travel further every year • Convenience of car use
Policy	• lack of vision • lack of political will
Infrastructure	• too many cars • poor lighting on footpaths • public transport infrastructure is poor (x4) – including central bus station needed, and public transport is slow and poor in the evening • poor network of cycle routes • safety concerns for cyclists

Theme 6: Towards a Sustainable City
(In addressing climate change it becomes clear that the whole sustainability agenda needs to be considered in order to provide holistic and informed choices.)

Issues	Summary of comments
Recycling and composting	• Interest in community recycling and composting schemes • Free compost bins and wormeries for community use • More support wanted for recycling and composting, especially in high-rise neighbourhoods
Local food	Local (organic) food was mentioned by a number of consultees, including: • promote local organic food • promote allotments (x2) • more allotments • allotment buddies • convert empty greenspace in the city to food growing • urban food and farming • Urban-rural dependencies – city should recognise the relationship between people and land (city and countryside)
Neighbourhood projects	Support for Ecostreets idea
Plastic	Support for recycling plastic Support for plastic carrier bag ban
Personal action	• People need to know what they can do • "People should be made to recycle" • develop ecocitizenship in Coventry
New developments	Ideas: • each new residential unit to be allocated food growing space • all new build to incorporate tree planting • all new build to be as energy efficient as possible • all new build to fit turbines/solar panels • plant trees
Greenspace	• Greenspace plan for city should promote improved opportunities for biodiversity • Preservation/protection of greenspace • Create green linkages • Integrate greenspace and green corridors into new developments
Biodiversity	• habitat protection • landscape scale preservation to maintain healthy ecosystems for wildlife, people and climate change adaptation
Co-location	Co-location of compatible and related businesses and services
Cycling	• Safe cycle routes • Secure cycle storage for commuters
Corporate responsibility	• supermarkets to switch off excessive lights • are lights "blazing " in the city at night really necessary? (eg Belgrade Plaza car park) • shops – please address heaters/AC situated immediately over

	doors
Procurement	Local procurement needed to reduce impact of transport, support local economy
Grants	• Opt-in scheme suggested for recycling – those who do it get incentives • This all needs long term planning, with considerable budgets put in place • The aerial thermal survey should inform where grants get allocated for energy efficiency • Grants to help people take action
Barriers identified	**Summary**
Cost	Identified by 7 people as a barrier
Attitude	• disinterest/apathy • selfishness • inconvenience
Policy	• poor recycling facilities • lack of imagination • lack of City Ecologist

Ideas into action
Some specific ideas arising from the consultation have been taken forward either to include in the action plan for 2008-2009, or for developing into medium or long term action.

A fundamental addition to the Strategy is the **annual target of emissions reduction**. Many respondents felt that 2050 was so far in the future there was a danger of losing the impetus for action (even with an identified interim target year). The decision was made to set a target of a 3% per annum reduction, which could be monitored annually, enabling the city to have a clearer view of progress.

For example, the 2008-2009 action plan will include the idea to "**Plant a Coventry forest**" as submitted by one respondent. It is proposed that 2008-2009 will see the launch of a long-term programme of tree planting in the city with the ultimate aim of planting a tree for every person in the city. The programme will start with a target of 10,000 trees in the first year.

The development of a **new Waste Strategy** for Coventry will bring together the twin aims of reducing carbon emissions and further raising the city's municipal waste recycling rate. This is another action for the first year of the Climate Change Strategy, which will consider many of the ideas about waste and recycling that were proposed by consultees.

A medium term action to be investigated is the proposal for a **free shuttle bus** between the rail station and the city centre. This idea will be taken up with partners to explore its feasibility.

Section C: Other general comments and contributions

Respondents were asked to contribute their thoughts on other areas, which are summarised in the following two sections:

A. What i**ncentives and disincentives** might be appropriate to achieve our goals?
B. What is the best way to **raise awareness** of climate change?

A. Incentives and disincentives
When asked what incentives and/or disincentives would be acceptable to help tackle climate change, there was a significant amount of support for incentives. Two quotes from the feedback summarise how the majority of respondents felt:

> "It's better to reward positive behaviour than to punish negative", and
>
> "People's behaviour changes when things are made easy for them".

The broad areas addressed in the suggested actions were:

1. Council
2. Domestic
3. Energy
4. Waste and Recycling
5. Transport

1. Council actions
Most respondents focused on personal behaviour change, but there were some offerings for the Council, particularly in its role as the planning authority.

Legislation and enforcement, and planning policy were central to people's views on what the Council should be doing, especially with regard to building standards. Consultees suggested:

- Higher standards for new developments should be established, and they should be enforced
- New developments should be designed to reduce the need to travel by combining residential, services and employment in the same area

Similarly other enforcement was asked for with regard to existing regulations in other areas:

- Idling vehicles
- Traffic restrictions in the city centre.

People also wanted support from the Council in the form of **advice and information**.

Procurement was an issue raised by some respondents, who felt that the Council's supply chain should be in possession of, or working towards recognised environmental standards

2. Domestic
The majority of responses to this question suggested financial incentives to help people reduce their carbon impact at home, mostly through the installation of renewables and improved insulation. Ideas included:

- Grants or discounts for home improvements for renewables – to help with outlay to purchase, or to help with installation
- Grants or discounts for insulation
- Reduction in Council Tax or vouchers to reward greener homes
- Discounts for purchase of other items such as water butts or compost bins

3. Energy
Other suggestions about energy included consideration of existing buildings:

- Focus on upgrading and retrofitting existing buildings
- Consider embodied energy – and reuse older buildings rather than demolishing them

4. Waste and Recycling
Suggestions about incentives and disincentives linked to waste and recycling included:

- A combination of pay by weight for waste collection and rewards for recycling
- Make kerbside collections easier – a greater range of materials, and wider coverage in the city

5. Transport
There were two main areas covered with regard to transport – public transport and car usage. Making **public transport cheaper (or free)** was a popular suggestion, and **road pricing/congestion charging** was offered by a number of respondents. Closing the city centre to non-essential traffic was another alternative suggested here.

Most people who suggested fiscal measures such as congestion charging were keen to see the income generated being dedicated to sustainable transport improvements.

Integrated and subsidised public transport was an ideal for a number of people, with one respondent recognising "entrenched private car use", and suggesting expansion of park and ride to counter this.

Cycling was the focus for some – "free cycles in the city" and "cycle Primelines" were two ideas.

Conclusion
The vast majority of responses were in favour of incentives: the majority of these were keen to see grants and subsidies for improvements to property involving the installation of renewables and upgrading insulation. Council Tax reductions and voucher schemes were also favoured for rewarding householders who made improvements.

Incentives to encourage more use of public transport were popular, with a number of people suggesting that congestion from cars should be addressed through disincentives such as congestion charging. Expansion of Park and Ride was seen to be a useful approach to reducing the impact of cars on the city centre.

B. Raising awareness
Responses to the question "What is the best way to raise awareness of climate change?" have been summarised in the table below. (Percentages rounded.)

Awareness method	Level of support from respondents
Local papers	20%
Schools/education	19%
Radio	16%
TV	11%
Promote consequences of inaction	6%
Advertising	5%
Leaflets	4%
Media (generally)	4%
Article in Citivision	2%
Council to lead by example	2%
Events	2%
Demonstration projects	2%
Council corporate training	2%
Community level action	2%
Recycling	2%

APPENDIX A: CONSULTATION QUESTIONS

1. General:

1. It is recognised that everyone must contribute to tackling climate change. Is the Strategy radical enough?
2. Should the Council be doing more to demonstrate leadership to the city on tackling climate change?
3. The target proposed is that Coventry cuts its CO_2 emissions by 67% by 2050, some organisations propose larger reductions. Do you think it should be 80-90%/70-80%/fine as it is/50-60%/40-50%/Other?
4. The Strategy suggests an interim target of 35- 40% reduction by 2025. Do you agree with this?
5. What is the best way to effectively raise awareness of climate change, its impacts and how to tackle the causes?
6. What kind of incentives and disincentives to help change peoples' behaviour do you think would be acceptable?
7. What are the next steps that you and/or your organisation will take as your own contribution to this work?

2. Six themes - for each of these there were two questions and a general comments box:

8. Are there any other issues to address or actions that should be included for this particular theme?
9. What are the barriers to making progress in this area (theme)?

Please add any additional comments with regard to the theme in the space provided.

C: Recommendations and feedback from Scrutiny Board (4), 6th February, 2008

Report Appendix C:
Recommendations and feedback from Scrutiny Board (4), 6th February, 2008

Item 5: Draft Climate Change Strategy for Coventry

Background:

At its meeting on 11 January 2008, Scrutiny Board 4 considered the draft Climate Change Strategy for Coventry.

Members asked for:

- Draft recommendations in response to the consultation
- A further meeting to learn more about the outcome of the consultation

A draft response for consideration follows:

"Thank you for the opportunity to respond to this important consultation.

We hope that this response will be a useful contribution to consideration of the implementation of the strategy.

Partnership working, accountability and engagement

For the Climate Change Strategy for Coventry to succeed will require action from a range of organisations far beyond the City Council and its immediate network of partner organisations. The Scrutiny Board wants to see the Strategy successfully engage a wide range of organisations in implementing appropriate responses to climate change, and taking steps to reduce the negative impact of their activities on the environment.

However, it is not clear whether the proposed mechanisms in the strategy are sufficient to achieve this. Part of the difficulty is that some of the proposals and assumptions in the report lack a strong evidence base (such as those relating to the "urban heat island", potential increases in tourism and the "café culture", more skin cancers, and the net change in summer deaths). Also, the Scrutiny Board found that an approach to accountability based on an annual report to Cabinet and the Board of Coventry Partnership was probably insufficient.

The Scrutiny Board concluded that ongoing scrutiny involvement in the development of actions to both mitigate and adapt to climate change would be beneficial to policy development and service improvement. The Scrutiny Board highlighted support for cycling as a particular priority. Overall, the Scrutiny Board acknowledges the draft climate change strategy as a positive and useful contribution to addressing the issues and challenges posed.

The Scrutiny Board therefore recommends that Cabinet move forward with implementation of the strategy, recognising that its development will be incremental, and reflect the need to nurture carefully wide-ranging partnership required for success. In order to assist in this process the Scrutiny Board makes the following recommendations to Cabinet in the hope that they will be considered in the first year of the strategy:

a. Scrutiny Board 4 recommends that Cabinet considers negotiating with partners to agree mechanisms by which they report on their activity in relation to climate change

b. Scrutiny Board 4 recommends that Cabinet seeks ways to publicise the Strategy more widely, and seek engagement outside of the Council's immediate network of partners, making best used of existing networks at the city-wide and community levels

c. Scrutiny Board 4 recommends that Cabinet takes steps to ensure that there is a stronger evidence base for the assumptions and proposals in the strategy

d. Scrutiny Board 4 recommends that Cabinet encourages the development of a process by which local partners more formally "sign up" to take action in relate to climate change

e. Scrutiny Board 4 recommends that Cabinet considers the development of a "core agreement" that includes common actions in relation to the climate change which signatories can adhere

f. Scrutiny Board 4 recommends that one of the actions that should be included in the core agreement is for each partner to publish a climate change action plan – to include anticipated outcomes – and offer public updates on progress in an accessible format

g. Scrutiny Board 4 recommends that Cabinet ensures that the forthcoming Local Area Agreement includes a target that relates both to climate change and requires partnership working to be achieved

Scrutiny Board 4 recommends that Cabinet encourages and supports an ongoing role for scrutiny in the consideration of issues and services that relate to climate change, including a more details review of support for cycling in the city

D: Proposed membership of Coventry Partnership's Climate Change Sub-group

Appendix D:
Proposed membership of Coventry Partnership's Climate Change Sub-group

Chair: to be agreed

City Council representatives

Cabinet Member (Climate Change, Housing and Sustainability)

Stephen Pickering *(Management Board Representative)*

Martin Yardley *(Deputy Director of City Development)*

Trevor Errington *(Head of Planning and Transportation)*

Niall McChesney *(Planning Policy/LDF)*

Jenni Venn *(Corporate Policy)*

Alice Davey *(Leisure and Culture)*

Dilip Chauhan *(City Council Transport Manager)*

Mark Fenton *(Building Schools for the Future)*

Air Quality representative

Business Continuity representative

Communications Team representative

Property representative

Partnership representatives:

Coventry Partnership Secretariat representative

Coventry Partnership Communications representative

Coventry University, Principal Lecturer, (SUDS research) - Dr Sue Charlesworth

Coventry University, Head of Environment and Space Planning – Elise Smithson

University of Warwick, Environment Officer - Nick Hillard

Carbon Trust – representative

WEEAC – Rachel Jones

PCT (Property Management) representative

West Midlands Police - Inspector Tony Irwin

West Midlands Fire and Rescue Service – Mark Taylor

Environment Agency representative

CVOne representative

Warwickshire Wildlife Trust representative

Whitefriars – Brian Tidman

Groundwork representative

Severn Trent – Ted Pearce